



MANN+HUMMEL
Air Filtration

Quick reference guide

The symbols below are used throughout this catalogue to quickly highlight the applications and features of each product.

APPLICATIONS



HVAC



Clean Room



Industrial

FEATURES

EX

ATEX-rated



Burst resistant



Earthed



Gas adsorption



Glass fiber media



Grease removal



High efficiency



High temperature



NoGlass media



Paint application



Particle removal



Pulse function



Re-gen



Spark arrestor



Water separation

XL

XL capacity

Clean Air

Air Filter Product Range

Clean air. We can't see it, smell it, taste it or feel it, yet it is a vital part of our everyday lives: ensuring the efficient generation of energy; protecting valuable equipment and artifacts; making indoor environments more comfortable; even preserving life itself.

At MANN+HUMMEL, our entire business is about creating clean air, and our sole aim is to do so in the most efficient way, at the most cost effective price, and with minimal impact on the world around us.

From humble coarse dust filters through to the latest laminar flow operating theatre ceilings, each product in our range is developed around our customers' exact needs using all the application know-how you could wish for.

QUALITY YOU CAN DEPEND UPON

The Eurovent Certification scheme is designed to give you the confidence that the filter you select performs as you expect.

Eurovent Certification is an independently operated scheme for the air filtration industry. Companies applying to join must offer their ePM10, ePM2.5 and ePM1 filters (according to ISO 16890) for testing through Eurovent, an impartial and neutral trade association. The filters are randomly selected by Eurovent and their performance is verified according to the manufacturer's claims. Only those manufacturers meeting their claims are awarded certification.

You can now be sure that what we say has been checked by an independent body.

Eurovent certified manufacturers can be trusted.



MANN+HUMMEL participates in the ECC program for Air Filters.

Check ongoing validity of certificate:
www.eurovent-certification.com
or www.certiflash.com

The filtration experts

MANN+HUMMEL

TWENTY FOUR.

It is the number of hours in a day. But it is also the number of filters that MANN+HUMMEL produces every, single second. And that is part of what makes us a world leader in filtration.

But it is our commitment to quality and innovation too. Of the 20,000 people we employ worldwide, over 1,000 work in our R&D department. That means we are at the front when it comes to finding new ways to improve air quality or deliver it more efficiently – which can be seen in the more than 3,000 patents that we have registered.

And when it comes to delivering excellent service, we are always close at hand, with more than 80 locations across the world.





MANN+HUMMEL has been a filtration specialist for more than 80 years. Leadership in Filtration is what drives us.

A FILTRATION CHAMPION

We're not just a global player. We serve on advisory boards in a number of industries, providing our expertise in the development of new standards. And having won numerous supplier of the year awards from some of the world's most respected companies, we take our role as partners seriously. We are champions for all matters concerning filtration.

ISO 16890

The new standard for classifying air filters

OUT WITH THE OLD. IN WITH THE NEW

EN 779 has been the most widely-used method of classifying air filters for over 20 years. But from the beginning of 2017, a new standard came into force that completely changed the way that filters are tested and categorized.

The good news is that ISO 16890 brings a number of benefits over the previous standard. It uses a number of new approaches and mechanisms that make the testing process more indicative of the conditions that the filter will operate within once installed. And the new rating system centers on the ultimate aim of an air filter—removing particulate matter—so it's easier to find a product that's matched to your needs.

WHAT'S WRONG WITH EN 779?

Since its launch in 1993, EN 779 has done much for the air filtration industry. Chief among which was introducing a uniform way to classify air filters that helped to drive up quality standards and simplify the process of selecting a filter. Unfortunately, it's this uniformity that is also EN 779's greatest weakness.

The air we breathe is a cocktail of countless types of particulate—of all shapes and sizes, and from all manner of sources. But EN 779 is based entirely on a filter's ability to capture one size of particulate—0.4 μm . It doesn't take into account all the different

particle sizes that are present in outside air. And that's why the testing procedure has been criticized for not reflecting the conditions in which a filter will be expected to operate. The results from the lab are not indicative of the real world.

ISO 16890 is different. Under testing in the new standard, a filter is challenged with a variety of different sized particulate—just as it would be if it was installed in your air handling unit. And this particulate stretches from 0.3 μm all the way up to 10 μm in a series of 12 tests.



Testing to these different particle sizes needs all new equipment capable of splitting particulate into 12 channels dependent on its size. The latest test rigs do this with incredible accuracy—giving an even more detailed view of a filter's performance.

Four ISO filter groups. One aim — simplicity.

REPLACING THE OLD G TO F CLASS

Four new filter groups are introduced under ISO 16890: Coarse, ePM10, ePM2.5 and ePM1. The 'e' prefix simply stands for efficiency. To fall into each category, a filter must be capable of capturing at least 50% of the particulate in that size range. Filters capturing less than 50% of PM10 dust go into the Coarse group.

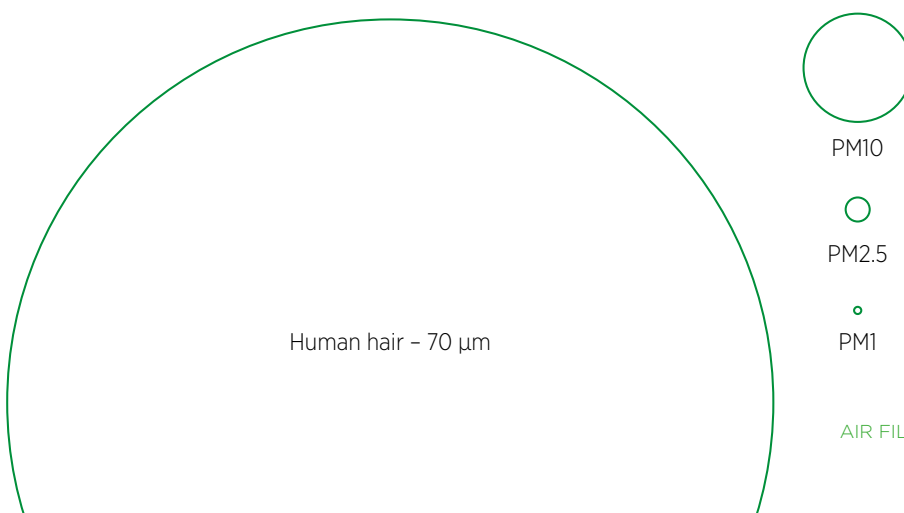
ISO 16890 filter group efficiencies

Coarse	< 50% of PM10
ePM10	≥ 50% of PM10
ePM2.5	≥ 50% of PM2.5
ePM1	≥ 50% of PM1

But not all products in a filter group will be the same. In product literature and test reports, the efficiency of the filter will be detailed alongside the group. So you are likely to see terms such as ePM2.5 60% or ePM1 95%. This simply means that the first filter provides 60% efficiency at PM2.5 and the second filter is 95% efficient at PM1.

The efficiency is rounded to the nearest 5%, so you should not come across any products listed as ePM10 89%, for example.

PARTICLE SIZE ILLUSTRATION



EN 1822

The test method for high efficiency air filters

ENSURING THE QUALITY OF EPA, HEPA AND ULPA FILTERS

The European filter testing standard is the most important basis for testing and classifying absolute filters. The standard is based on state-of-the-art particle measurement technology and authorized procedures for determining the efficiencies. It has five parts. The filter is assigned to the relevant filter class using the results from sections 4 (local arrestance) and 5 (integral arrestance).

An individual test report and serial number are produced for filters in classes H13 and higher. Therefore each filter from H13 on can be assigned to its own individual test. Individual testing of EPA filters is not necessary according to the standard, and is possible with the testing procedure described. EPA filters are tested in the course of sample testing, whereby the arrestance is obtained as a mean value from individual, random measurements.

PART 1: CLASSIFICATION, PERFORMANCE TEST AND IDENTIFICATION

EN 1822-1:2009 sets three groups:

- Group E: EPA – Efficient particulate air filter
- Group H: HEPA – High efficiency-particular air filter
- Group U: ULPA – Ultra low penetration air filter

The absolute filters are classified according to the local and integral arrestance values determined during testing.

PART 2: AEROSOL PRODUCTION, MEASURING EQUIPMENT, PARTICLE COUNTING STATISTICS

This part describes the conditions for testing and the aerosol generators, the particle measuring technology and the statistical procedures to evaluate the counts.

Filter Class	Integral Value		Local Value	
	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

PART 3: TESTING FLAT SHEET FILTER MEDIA (DETERMINING MPPS)

Part 3 describes the determination of the fractional efficiency and determination of the most penetrating particle size (MPPS) of the flat sheet filter media.

A test aerosol is applied to the filter media at the nominal flow velocity specified for later use of the filter. Partial flows of the test aerosol are taken upstream and downstream of the filter sample. The particle counting method determines the particulate concentrations and calculates the fractional efficiency curve. The particle size at which the fractional efficiency curve reaches its minimum is called the MPPS. Put in simple terms, this is the particle size at which the filter medium works worst for a defined flow velocity.

PART 4: LEAK TESTING OF FILTER ELEMENTS (SCAN METHOD)

This section addresses how to test filters for leaks. Leaks can occur due to faults in the filter media, improper sealing between the pleat pack and frame or irregularities when handling the components. On account of the high filtration efficiency expected of absolute filters, even the smallest leaks (that are hardly visible to the human eye) can produce increased local particle concentrations.

For the automated process (scan test), the filter element is set up in a test rig and a DEHS (Di-2-Ethylhexyl-Sebacat) test aerosol is then applied. The mean particle size of the aerosol must lie in the range of the MPPS. The flow side of the filter

is approached using probes on computer-controlled linear axis. At each point on the clean air side, the local aerosol concentrations are measured to determine the local degree of penetration. If the aerosol concentration does not exceed the required limit at any of the points, the filter is deemed to be leak free.

The necessity to determine the local efficiencies also implies the necessity for individual testing of each filter element upwards of filter class H13.

PART 5: DETERMINING THE EFFICIENCY OF FILTER ELEMENTS

Part 5 describes the determination of the integral filter efficiency. This value is usually calculated as the mean of the local individual efficiencies measured in Part 4. Alternatively, an individual measurement with fixed sampling probes is also permissible.

LEAK TEST ALTERNATIVE: OIL THREAD TEST (H13 AND H14)

In this fast, low-cost leak-testing method, the filter is positioned in front of a black background in a brightly-lit room, horizontally and leak-free on a diffuser. An aerosol with defined droplets of different sizes (triglycol) is then applied to the filter. Meanwhile, the filter is inspected visually for leaks. The test procedure depends highly on the training and attitude of the test personnel. This test method is very sensitive for leaks but does not determine the filter efficiency. The efficiency is determined during development of the filter according to its media material and amount.

EN 13501

The newest standard for preventive fire protection

THE ROLE OF AIR FILTERS IN PREVENTIVE FIRE PROTECTION

Air filters may not be the source of a fire, but – as dry textiles often loaded with dust – they can act as accelerant to an event that begins elsewhere.

That's why, at European level, filters for air conditioning systems in buildings must be tested in accordance with EN 13501 and meet Class E (normally flammable building materials).

The EN 13501 test method is carried out according to ISO 11925-2 for Class E and assesses the flammability of a construction product when exposed to a small combustible flame for 15 seconds (normal flammable building materials).

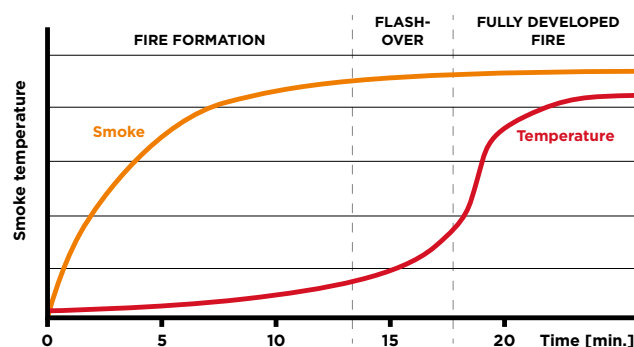
Only air filters that conform to this standard and do not increase the fire load of a building may be installed in air conditioning systems in buildings.

HOW DOES EN 13501 COMPARE TO THE PREVIOUS DIN 53438 STANDARD?

In contrast to DIN 53438, EN 13501 not only tests the flammability of an air filter, but also the dripping behavior and smoke development of a building product.

In the event of a fire, it is the smoke that poses the initial threat to the people in a building, with the actual flames following a significant time later. EN 13501 takes this behavior into account and provides greater safety for the occupants of a building.

FIRE PROGRESS AND SPREAD OF SMOKE



PLAY IT SAFE WITH AIR FILTERS FROM MANN+HUMMEL

MANN+HUMMEL air filters conform fully with EN 13501 Class E. That means neither the individual components nor our complete filters increase the fire load of a building – as proven in external fire protection testing in accordance with ISO 11925-2.

But this safety doesn't come at the price of the environment. All of our metal-free filters are fully incinerable to reduce landfill and allow energy to be recovered from their disposal.

INDUSTRY STANDARDS – FIRE PREVENTION IN BUILDINGS

EN 15423

Ventilation of buildings – fire protection of ventilation systems

VDI 3803-4

Air conditioning requirements for air filter systems. Class E according to EN 13501

EN 13501

Classification of construction products according to their behavior in fire. Air filters must be tested according to EN 13501, class E.

EN ISO 11925-2

Tests the fire behavior of building products; flammability and flaming

MAXIMUM PRODUCT SAFETY THROUGH COMPLIANCE

Of course, safety is not just about fire protection – especially when dealing with a vital resource such as air. For this reason, air filters must comply with numerous standards that cover various aspects of health and safety.

For example, the VDI 6022 standard focuses on the hygiene of ventilation and air conditioning systems and devices. As a bare minimum, equipment used in HVAC systems must not be a source of any contamination that could worsen the hygiene in a building.

MANN+HUMMEL tests its products in accordance with the relevant standards:

Ventilation equipment	EN 13053, EN 16789-3, VDI 3803-1, Eurovent 4/23, DIN 1946-4
Quality, efficiency, technology	ISO 16890, EN 1822 / ISO 29463, VDI 3803-4
Energy efficiency	Eurovent 4/21
Hygiene / metabolism	VDI 6022, VDI 3803-4, DIN 1946-4, EG 1935/2004, ISO 846, EU 10/2011, ADI-free
Fire protection	EN 15423, EN 13501, DIN 53438
Fire safety rail vehicles	EN 45545-2

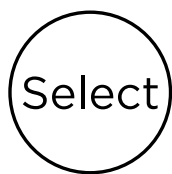
Finding your way Product names that make life easier

Many product names make sense to the people who use them every day—the filter manufacturers, but not to the people who matter—the customers. So, with the launch of the new ISO 16890 standard, we have taken the opportunity to overhaul our entire filter range to make it easier for you to find what you need.

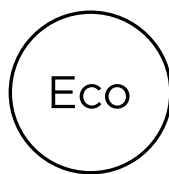
Our products are named according to what they look like and what they do.

We have split products into categories and named each one according to what they look like. So you can instantly recognize what each product is, and quickly find what you need.

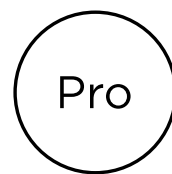
Each of these product families is then separated into three levels—Select, Eco and Pro—that follow a good, better, best format. So, if you're looking to minimize your initial expenditure choose a Select filter. If you need a product with a low energy consumption, choose Eco. And if you want a product that combines high standards of air quality with low energy consumption, you choose Pro.



Entry-level product, with a focus on price/performance.



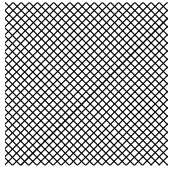
Mid-range product that provides improved life cycle costs.



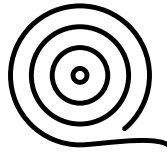
Flagship product or filter for a special application.

Of course, not all products fit into these three tight groups. So, special products have a descriptive name to indicate what makes them different; such as 'Refill' for our rechargeable filter product, NoGlass for our glass-free media products, and H2O for our water coalescing products.

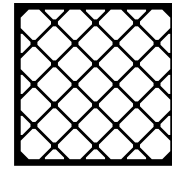
The high efficiency—EPA, HEPA and ULPA filters—and activated carbon products that are not affected by ISO 16890 make up new nanoclass and carboactiv product families respectively. These are then divided and named according to their shape too.



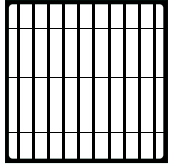
AIRMAT
Filter media cut into a mat.



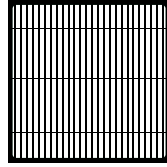
AIRROLL
Filter media wound into a roll.



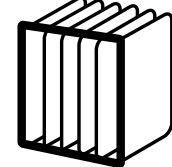
AIRPAD
A pad of filter media in a cardboard frame.



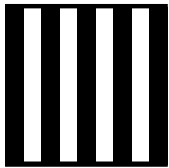
AIRPANEL
A pleated media in a plastic frame.



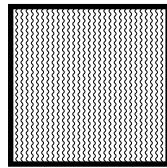
AIRSQUARE
A mini-pleated media in a plastic or metal frame.



AIRPOCKET
A pocket (or bag) filter with a plastic or metal frame.



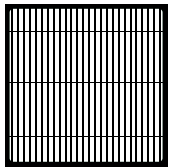
AIRCUBE
A compact filter, also known as a rigid bag.



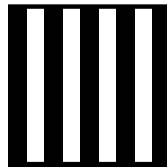
AIRCUBE DEEPPLEAT
A box-shaped filter with aluminum separators.



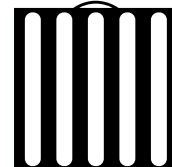
AIRTUBE
A cylindrical filter with a round pleated media.



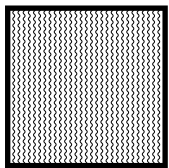
NANOCLASS SQUARE
EPA, HEPA and ULPA filter with a mini-pleated media.



NANOCLASS CUBE
EPA, HEPA and ULPA filter with a rigid, compact frame.



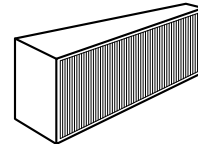
NANOCLASS CUBE N
EPA, HEPA and ULPA filter with mini-pleated media panels.



NANOCLASS DEEPPLEAT
High-capacity EPA, HEPA and ULPA filter.



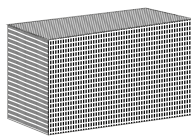
NANOCLASS TUBE
A cylindrical EPA, HEPA and ULPA filter.



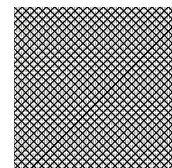
NANOCLASS WEDGE
A tapered EPA, HEPA and ULPA filter.



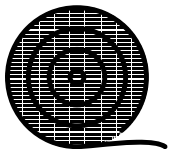
CARBOACTIV FILL
Loose activated carbon for use in refillable gas adsorption filters.



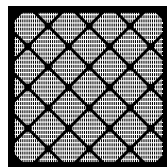
CARBOACTIV BISCUIT
Activated carbon formed into a cube block.



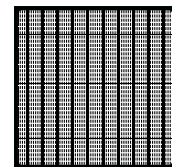
CARBOACTIV MAT
Activated carbon filter media cut into a mat.



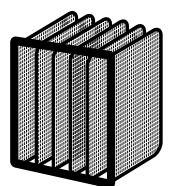
CARBOACTIV ROLL
A roll of activated carbon filter media.



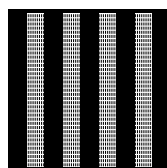
CARBOACTIV PAD
A pad of activated carbon media in a cardboard frame.



CARBOACTIV PANEL
Pleated activated carbon media in a plastic frame.



CARBOACTIV POCKET
Pocket (or bag) filter impregnated with activated carbon.



CARBOACTIV CUBE
Activated carbon filter with a rigid, box-shaped frame.



CARBOACTIV TUBE
Cylindrical activated carbon filter.

Typical Contaminants

Filter Class, Typical Contaminants and Applications

Group	Class	Typical Contaminants	Typical Applications
Coarse ISO 16890	50%	Leaves, insects, textile fibers	Low grade applications (e.g. For protection against insects and leaves)
	60%	Human hair, sand, water droplets	Low grade applications (e.g. for protection against sand and water droplets)
	70%	Beach sand, plant spores	Compact room air conditioners
	80%	Pollen, fog	Compact room air conditioners, prefilter for ePM2.5 and ePM1 filters
ePM10 ISO 16890	50%	Spores, sedimenting particles, cement	Inlet filter for very low requirement rooms, prefilter for ePM2.5 and ePM1 filters
	70%	Larger bacteria & germs, PM10 dust	Inlet filter for low requirements rooms, prefilter for ePM1 and E10 filters
ePM2.5 ISO 16890	50%	Soot, lung damaging dust (PM2.5)	Inlet filter for low requirements rooms, prefilter for ePM1 and E10 filters
ePM1 ISO 16890	60%	PM1 dust, cement dust (fine fraction)	Recirculated air in AC plants, prefilter for E11 and E12 filters
	85%	Oil smoke, bacteria	Prefilter for H13 and H14 filters and gas adsorption filters
E EPA Filters EN 1822	E10	Germs, tobacco smoke	Final filter for air-conditioned rooms of very high standard (e.g. hospitals)
	E11	Viruses on carrier particles, carbon black	Final filter for cleanrooms ISO class 7 - 8
	E12	Oil fumes, sea salt nuclei	Final filter for cleanrooms ISO class 5 - 6
H HEPA Filters EN 1822	H13	Radioactive particles	Final filter for ISO class 5 - 6 cleanrooms, military shelters and food, electronics & pharma industries. Exhaust filter in nuclear applications.
	H14	Viruses	Final filter for cleanrooms ISO class 4 - 5
U ULPA Filters EN 1822	U15	All air suspended particulate matter	Final filter for cleanrooms ISO class 3 - 4
	U16	All air suspended particulate matter	Final filter for cleanrooms ISO class 2 - 3
	U17	All air suspended particulate matter	Final filter for cleanrooms ISO class 1
A Gas Filters	Physisorption	VOCs, solvent vapors, kitchen odors	Airports, office buildings, hotels, hospitals, improvement of IAQ
	Gas Filters	Acidic Gases, SO ₂ , SO ₄ , NO ₂ , NO _x	Computer and control rooms, microelectronics, museums, libraries
	Chemisorption	Amines, NH ₃ , NH ₄ , NMP, HMDS	Recirculated air in microelectronics industry

eco16

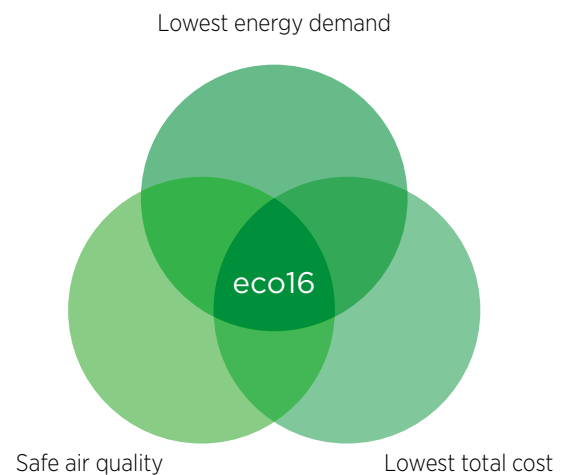
Clean air at the lowest possible cost

Just selecting a filter with the lowest energy consumption could risk the health of the people in your building. But over specifying filtration efficiency may mean your energy consumption is considerably higher than it needs to be.

There is a conundrum when it comes to HVAC filters: as filtration efficiency increases, so too does energy consumption. So choosing a filter that delivers high standards of air quality typically means you use more energy, which is not good for your budget or your carbon footprint.

Our patented eco16 program provides the answer to overcome this challenge. It finds the sweet spot where the filtration system is supplying a safe level of air quality but at the lowest possible energy demand.

We conduct a full analysis of your location, including measuring the air quality inside and outside your building. And on the basis of that data we configure the ideal filtration solution to meet your individual requirements. This configuration will provide you with a safe level of air quality at the lowest possible cost - to you and the environment.



Contact us or visit airfiltration.mann-hummel.com to learn more about eco16 Clean Air Management.

Product Selector

We've designed our filter range to be easy to navigate. Use the Product Selector below and at the start of each section to find a product by filtration class, application or individual feature.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
Prefilters	18																							
Airmat Select Fancoil	20	•							•	•														
Airmat Select Fancoil Refill	22	•							•	•												•		
Airroll Select Dust Glass	24	•							•	•					•									
Airroll Select Glass Automatic RFM	26	•							•	•	•				•									
Airroll Select Glass Automatic RFT	28	•							•	•	•				•									
Airroll Select Glass Automatic RFD	30	•							•	•	•				•									
Airroll Select Glass Automatic RFF	32	•							•	•	•				•									
Airroll Select Paint Dust	34	•							•						•					•				
Airroll Paintcard PFF	36								•											•				
Airmat Eco NoGlass	38	•	•						•	•	•								•					
Airroll Eco NoGlass	40	•							•	•	•								•					
Airroll Pro Paint NoGlass	42	•							•										•	•				
Airpad Select Glass	44	•							•	•					•									
Airpad Select NoGlass	46	•							•	•									•					
Aircurve Select	48	•							•	•	•													
Airpanel Select	50	•							•	•														
Airpanel Select XL	52	•							•	•														•
Airpanel Select FZL	54	•							•	•														
Airpanel Eco FZL	56	•							•	•														
Airpocket Select	58	•							•	•														
Airpocket Eco	60	•							•	•														
Airpocket Pro Rigid	62	•							•	•	•		•											
Fine Dust Filters	64																							
Airpanel Eco	66		•	•					•	•	•													
Airpanel Eco S	68		•						•	•	•													
Airsquare Select	70		•		•				•	•														
Airsquare Select Flange	72		•	•	•				•	•														
Airsquare Pro Flange HT	74		•		•				•	•								•						
Airpocket Select	76		•		•				•	•														
Airpocket Eco	78		•		•				•	•														
Airpocket Eco Glass	80			•	•				•	•					•									
Airpocket Pro Rigid	82		•		•				•	•	•		•											
Aircube Eco 3V	84		•	•	•				•	•														
Aircube Select 4V	86		•		•				•	•														
Aircube Eco 4V	88		•	•	•				•	•														
Aircube Eco S 4V	90				•				•	•														
Aircube Pro HT	92		•	•	•				•	•								•						
Aircube Pro Refill	94		•	•	•				•	•												•		
Aircube N Eco	96				•				•	•														

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity	
High Efficiency Filters	98																								
Nanoclass Square Select	100					•	•		•	•							•								
Nanoclass Square Eco FL	102						•		•	•							•								
Nanoclass Square Eco FC	104						•		•	•							•								
Nanoclass Square Eco KE	108						•		•	•							•								
Nanoclass Square Eco TC	110						•		•	•							•								
Nanoclass Square Pro FL HT	112						•		•	•							•	•							
Nanoclass Square Pro Membrane FC	114						•		•	•							•		•						
Nanoclass Square Pro Membrane TC	116						•		•	•							•		•						
Nanoclass Square Pro Membrane KE	118						•		•	•							•		•						
Nanoclass Square Pro Flange HT	120					•			•	•							•	•							
Nanoclass Deeppleat Select	122					•	•		•	•							•								
Nanoclass Cube N Select	124					•	•		•	•							•								
Nanoclass Cube N Eco	126					•	•		•	•							•								
Nanoclass Cube N Pro HT	128								•	•							•	•							
Nanoclass Cube Pro	130					•			•	•							•								
Nanoclass Cube Pro HT	132								•	•							•	•							
Nanoclass Cube 3V Pro Membrane	134					•			•	•							•								
Nanoclass Wedge	136					•	•		•	•							•								
Nanoclass Tube Pro	138						•		•	•							•								
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Carboactiv Cube N	156								•	•				•											
Carboactiv Cube	158								•	•	•			•											
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ATEX-Compliant Air Filters	164																								
Aircurve Pro ATEX	166	•							•	•		•													
Airpocket Pro ATEX	168			•					•	•		•		•											
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Paint Spray Filters	174																								
Airroll Select Paint Dust	176	•							•						•									•	
Airroll Paintcard PFF	178						•											•							
Airroll Pro Paint NoGlass	180	•							•											•			•		
Aircube Deeppleat Pro Paint	182				•				•								•						•		
FreciousComfort Filters	184																								
Airpocket FreciousComfort	186				•				•								•								
Carboactiv Cube FreciousComfort	188				•				•	•	•			•			•								
Other Products	190																								
Airpad Select Grease	192								•							•									
Airhandling	194								•	•	•														



Prefilters

Used to separate: Coarse dust like insects, textile fibers, hair, sand, airborne ash, and pollen.

Prefilters are typically the first stage in a filter system and protect higher-quality, fine dust filters from becoming clogged or damaged by coarse dust.

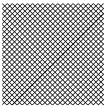
Prefilters come in a variety of shapes and sizes; from rolls of filter media, which provide a cost effective first filter stage, to pleated panel filters that pack large filter areas into a compact frame.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
Prefilters	18																							
Airmat Select Fancoil	20	•							•	•														
Airmat Select Fancoil Refill	22	•							•	•												•		
Airroll Select Dust Glass	24	•							•	•					•									
Airroll Select Glass Automatic RFM	26	•							•	•	•				•									
Airroll Select Glass Automatic RFT	28	•							•	•	•				•									
Airroll Select Glass Automatic RFD	30	•							•	•	•				•									
Airroll Select Glass Automatic RFF	32	•							•	•	•				•									
Airroll Select Paint Dust	34	•							•						•					•				
Airroll Paintcard PFF	36								•											•				
Airmat Eco NoGlass	38	•	•						•	•	•								•					
Airroll Eco NoGlass	40	•							•	•	•								•					
Airroll Pro Paint NoGlass	42	•							•										•	•				
Airpad Select Glass	44	•							•	•					•									
Airpad Select NoGlass	46	•							•	•									•					
Aircurve Select	48	•							•	•	•													
Airpanel Select	50	•							•	•														
Airpanel Select XL	52	•							•	•														•
Airpanel Select FZL	54	•							•	•														
Airpanel Eco FZL	56	•							•	•														
Airpocket Select	58	•							•	•														
Airpocket Eco	60	•							•	•														
Airpocket Pro Rigid	62	•							•	•	•		•											

Cost-effective performance. Airpanel Select's synthetic media is supported by a rigid and robust cardboard frame.

Airmat Select Fancoil

Product Range



Select

Applications



Filter Class

G

Coarse



KEY FACTS

- Synthetic polyester filter medium
- Available in a wide variety of sizes
- Reusable metal frame

DESIGN

Synthetic filter medium on a wire frame that can be reused with the Airmat Select Fancoil Refill.

APPLICATIONS

Installed into floor, wall and ceiling-mounted fan coil induction units to provide air cleanliness and protection for system parts.

Airmat Select Fancoil

PERFORMANCE DATA

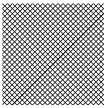
Filter Class		Dimensions	Pressure Drop
ISO 16890	EN 779	mm	Pa
Coarse 60%	G2	Wide variety of sizes	20

SPECIFICATION

Recommended air velocity	1.5 m/s (\pm 0.5 m/s)	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 100 °C	Moisture resistance	100 % rel. humidity
Regenerable	Yes - with Airmat Select Fancoil Refill	Incinerable	Yes - excluding metal frame

Airmat Select Fancoil Refill

Product Range



Select

Applications



Features



Filter Class

G

Coarse



KEY FACTS

- Replacement media for Airmat Select Fancoil
- Available in a wide variety of sizes
- Thermally-bonded, synthetic filter medium

DESIGN

Replacement filter media sleeve made from thermally-bonded, polyester fiber.

APPLICATIONS

Installed into floor, wall and ceiling-mounted fan coil induction units to provide air cleanliness and protection for system parts.

Airmat Select Fancoil Refill

PERFORMANCE DATA

Filter Class		Dimensions	Pressure Drop
ISO 16890	EN 779	mm	Pa
Coarse 60%	G2	Wide variety of sizes	20

SPECIFICATION

Recommended air velocity	1.5 m/s (\pm 0.5 m/s)	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 100 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

Airroll Select Dust Glass

Product Range



Select

Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Glass fiber filter medium
- To separate dry dust
- Free of silicon and paint-damaging substances
- Resistant to acetone

DESIGN

Continuously-spun glass fiber filter mats, which are impregnated with an antibacterial dust adhesive. Media features a progressive structure to provide even dirt loading.

APPLICATIONS

Separation of dry dusts in metal working plants, wood shops, etc.

Airroll Select Dust Glass

PERFORMANCE DATA

Filter Class		Dimensions	Air Velocity	Pressure Drop
ISO 16890	EN 779	mm	m/s	Pa
Coarse 60%	G3	500 x 20000 x 25	2	35
Coarse 60%	G3	750 x 20000 x 25	2	35
Coarse 60%	G3	1000 x 20000 x 25	2	35
Coarse 60%	G3	1500 x 20000 x 25	2	35
Coarse 60%	G3	500 x 20000 x 50	2	50
Coarse 60%	G3	750 x 20000 x 50	2	50
Coarse 60%	G3	1000 x 20000 x 50	2	50
Coarse 60%	G3	1500 x 20000 x 50	2	50
Coarse 70%	G3	500 x 20000 x 100	2	60
Coarse 70%	G3	750 x 20000 x 100	2	60
Coarse 70%	G3	1000 x 20000 x 100	2	60
Coarse 70%	G3	1500 x 20000 x 100	2	60

SPECIFICATION

Recommended air velocity	2 m/s	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 80 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

Airroll Select

Glass Automatic RFM

Product Range



Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Compatible with CEAG and AAF roll filter systems
- High dust holding capacity
- Wound for standard or reverse flow
- Odor free

DESIGN

Continuously-spun glass fiber media, tension wound onto a steel spool with end plates.

APPLICATIONS

Replacement filter roll for installation in CEAG and AAF systems.

Airroll Select

Glass Automatic RFM

PERFORMANCE DATA

Filter Class		Dimensions	Pressure Drop
ISO 16890	EN 779	mm	Pa
Coarse 70%	G3	526 x 20000 x 60	48
Coarse 70%	G3	836 x 20000 x 60	48
Coarse 70%	G3	1141 x 20000 x 60	48
Coarse 70%	G3	1446 x 20000 x 60	48
Coarse 70%	G3	1751 x 20000 x 60	48
Coarse 70%	G3	2056 x 20000 x 60	48

SPECIFICATION

Recommended air velocity	2.5 m/s	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 120 °C	Moisture resistance	80 %
Regenerable	No	Incinerable	No

Airroll Select

Glass Automatic RFT

Product Range



Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Compatible with Trox automatic roll filter hardware
- High dust holding capacity
- Wound for standard or reverse flow
- Odor free

DESIGN

Continuously-spun glass fiber media, tension wound onto a cardboard cassette with a metal shaft.

APPLICATIONS

Replacement filter roll for installation in Trox systems.

Airroll Select

Glass Automatic RFT

PERFORMANCE DATA

Filter Class		Dimensions	Pressure Drop
ISO 16890	EN 779	mm	Pa
Coarse 70%	G3	650 x 20000 x 60	48
Coarse 70%	G3	950 x 20000 x 60	48
Coarse 70%	G3	1250 x 20000 x 60	48
Coarse 70%	G3	1550 x 20000 x 60	48
Coarse 70%	G3	1850 x 20000 x 60	48
Coarse 70%	G3	2150 x 20000 x 60	48

SPECIFICATION

Recommended air velocity	2.5 m/s	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 120 °C	Moisture resistance	80 %
Regenerable	No	Incinerable	No

Airroll Select

Glass Automatic RFD

Product Range



Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Compatible with Delbag automatic roll filter hardware
- High dust holding capacity
- Wound for standard or reverse flow
- Odor free

DESIGN

Continuously-spun glass fiber media, tension wound onto a cardboard tube.

APPLICATIONS

Replacement filter roll for installation in Delbag systems.

Airroll Select

Glass Automatic RFD

PERFORMANCE DATA

Filter Class		Dimensions	Pressure Drop
ISO 16890	EN 779	mm	Pa
Coarse 70%	G3	810 x 20000 x 60	48
Coarse 70%	G3	1110 x 20000 x 60	48
Coarse 70%	G3	1410 x 20000 x 60	48
Coarse 70%	G3	1710 x 20000 x 60	48
Coarse 70%	G3	2010 x 20000 x 60	48

SPECIFICATION

Recommended air velocity	2.5 m/s	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 80 °C	Moisture resistance	80 %
Regenerable	No	Incinerable	No

Airroll Select

Glass Automatic RFF

Product Range



Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Compatible with Farr and Schirp automatic roll filter hardware
- High dust holding capacity
- Wound for standard or reverse flow
- Odor free

DESIGN

Continuously-spun glass fiber media, tension wound onto a cardboard tube.

APPLICATIONS

Replacement filter roll for installation in Farr and Schirp systems.

Airroll Select

Glass Automatic RFF

PERFORMANCE DATA

Filter Class		Dimensions	Pressure Drop
ISO 16890	EN 779	mm	Pa
Coarse 70%	G3	838 x 20000 x 60	48
Coarse 70%	G3	1143 x 20000 x 60	48
Coarse 70%	G3	1448 x 20000 x 60	48
Coarse 70%	G3	1753 x 20000 x 60	48
Coarse 70%	G3	2056 x 20000 x 60	48

SPECIFICATION

Recommended air velocity	2.5 m/s	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 65 °C	Moisture resistance	80 %
Regenerable	No	Incinerable	No

Airroll Select Paint Dust

Product Range



Select

Features



Applications



KEY FACTS

- Glass fiber filter medium
- To separate paint mists
- Free of silicon and paint-damaging substances
- Resistant to acetone

DESIGN

Continuously-spun glass fiber filter mats with a progressive structure to provide even dirt loading.

APPLICATIONS

Floor filter for color mist separation in paint cabins and spray booth in the automobile industry, body paint shops, carpentry workshops, etc.

Airroll Select Paint Dust

PERFORMANCE DATA

Average arrestance	Dimensions	Air Velocity	Pressure Drop
Paint mist (%)	mm	m/s	Pa
90 - 95	500 x 20000 x 50	2.5	30
90 - 95	750 x 20000 x 50	2.5	30
90 - 95	1000 x 20000 x 50	2.5	30
90 - 95	1500 x 20000 x 50	2.5	30
93 - 97	500 x 20000 x 70	2.5	40
93 - 97	750 x 20000 x 70	2.5	40
93 - 97	1000 x 20000 x 70	2.5	40
93 - 97	1500 x 20000 x 70	2.5	40
98 - 99	500 x 20000 x 100	2.5	60
98 - 99	750 x 20000 x 100	2.5	60
98 - 99	1000 x 20000 x 100	2.5	60
98 - 99	1500 x 20000 x 100	2.5	60

SPECIFICATION

Recommended air velocity	2.5 m/s	Recommended final pressure drop	80 Pa for 50 mm and 70 mm, 130 Pa for 100 mm
Heat resistance	Max. 180 °C	Moisture resistance	80 %
Regenerable	No	Incinerable	No

Airroll Paintcard PFF

Product Range



Features



Applications



KEY FACTS

- Self supporting, environmentally-friendly design
- Four to six times greater paint loading than glass fiber
- Simple method for retrofitting expensive water curtain systems
- Ensures an even air flow across the cabin

DESIGN

Self-supporting filter medium made from 100 % recycled cardboard. Paper pleats for effective paint storage.

APPLICATIONS

Prefilter for exhaust air in spray and paint cabins. Dry filter for cross-draft paint booths.

Airroll

Paintcard PFF

PERFORMANCE DATA

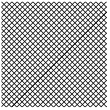
Width x Length	Pleats	Filter area / packaging unit	Flow rate	Pressure Drop
approx. mm		m ²	m/s	Pa
750 x 13000	330	10	0.75	30
900 x 11000	270	10	0.75	30
1000 x 10000	250	10	0.75	30

SPECIFICATION

Recommended air velocity	0.75 m/s	Recommended final pressure drop	Max. 150 Pa
Heat resistance	Max. 100 °C	Moisture resistance	100 % rel. humidity
Regenerable	Yes	Incinerable	Yes

Airmat Eco NoGlass

Product Range



Features



Applications



Filter Class

G

M

Coarse

ePM10



KEY FACTS

- High performance synthetic fibers
- High dust holding capacity
- Progressive density
- Robust and durable
- Available in a wide variety of sizes
- Mechanically and thermally bonded

DESIGN

Synthetic fibers in a progressively-structured filter mat that gradually increases in density with the depth of the material.

APPLICATIONS

For coarse and fine filtration of exhaust and supply air.

Airmat Eco

NoGlass

PERFORMANCE DATA

Filter Class		Dimensions	Media Type	Air Velocity	Pressure Drop
ISO 16890	EN 779	mm		m/s	Pa
Coarse 60%	G2	500 x 500 x 10	7095	1.5	30
Coarse 60%	G2	500 x 500 x 12	7100	1.5	30
Coarse 60%	G2	500 x 500 x 14	7090	1.5	25
Coarse 60%	G3	500 x 500 x 6	7282	1.5	35
Coarse 80%	G4	500 x 500 x 7	7631	1.5	35
Coarse 80%	G4	500 x 500 x 15	7220	1.5	45
Coarse 80%	G4	500 x 500 x 21	7200	1.5	50
Coarse 90%	M5	500 x 500 x 13	7650	1.5	70
ePM10 50%	M5	500 x 500 x 4	6055	0.5	40
ePM10 70%	M6	500 x 500 x 13	2660	0.5	50

SPECIFICATION

Recommended air velocity	1.5 m/s (± 0.5 m/s)	Rec. final pressure for efficient energy use acc. to EN 13053	Coarse: Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3 ePM10: Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

Airroll Eco NoGlass

Product Range



Features



Applications



Filter Class



Coarse



KEY FACTS

- High performance synthetic fibers
- High dust holding capacity
- Progressive density
- Robust and durable
- Available in a wide variety of sizes
- Mechanically and thermally bonded

DESIGN

Synthetic fibers in a progressively-structured filter roll that gradually increases in density with the depth of the material.

APPLICATIONS

For coarse and fine filtration of exhaust and supply air.

Airroll Eco

NoGlass

PERFORMANCE DATA

Filter Class		Dimensions*	Media Type	Air Velocity	Pressure Drop
ISO 16890	EN 779	mm		m/s	Pa
Coarse 60%	G2	1000 x 20000 x 10	7095	1.5	30
Coarse 60%	G2	2000 x 20000 x 12	7100	1.5	30
Coarse 60%	G2	1000 x 10000 x 12	7100	1.5	30
Coarse 60%	G2	2000 x 40000 x 14	7090	1.5	25
Coarse 80%	G4	2000 x 20000 x 15	7220	1.5	45
Coarse 80%	G4	1000 x 20000 x 21	7200	1.5	50
Coarse 80%	G4	2000 x 20000 x 21	7200	1.5	50
Coarse 90%	M5	2000 x 20000 x 13	7650	1.5	70

*Other widths and lengths available on request.

SPECIFICATION

Recommended air velocity	1.5 m/s (± 0.5 m/s)	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

Airroll Pro

Paint NoGlass

Product Range



Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Contains no irritants
- Zero risk of shedding
- Last up to four times longer than equivalent glass media
- Suitable for heavy-duty use
- High dust and paint holding capacity

DESIGN

Constructed from robust, flexible, polyester fibers connected by strong bonds, with no risk of shedding.

APPLICATIONS

Designed for paint booth and other wet/dry applications.

Airroll Pro

Paint NoGlass

PERFORMANCE DATA

Filter Class		Dimensions	Air Velocity	Pressure Drop
ISO 16890	EN 779	mm	m/s	Pa
Coarse 70%	G4	750 x 20000 x 30	1.5	≤22
Coarse 70%	G4	1000 x 20000 x 30	1.5	≤22
Coarse 70%	G4	2000 x 20000 x 30	1.5	≤22
Coarse 70%	G4	750 x 20000 x 40	1.5	≤30
Coarse 70%	G4	1000 x 20000 x 40	1.5	≤30
Coarse 70%	G4	2000 x 20000 x 40	1.5	≤30
Coarse 70%	G4	750 x 20000 x 50	1.5	≤35
Coarse 70%	G4	1000 x 20000 x 50	1.5	≤35
Coarse 70%	G4	2000 x 20000 x 50	1.5	≤35

SPECIFICATION

Recommended air velocity	2 m/s	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

Airpad Select Glass

Product Range



Select

Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Compact design for simple storage, installation, handling and removal
- Available in a wide range of sizes
- Heavy duty, moisture-resistant design

DESIGN

Glass fiber media in a heavy duty, moisture-resistant chipboard case, which is created prior to folding to eliminate moisture ingress.

APPLICATIONS

Prefiltration in general HVAC systems to protect plant room equipment and duct linings, and to extend the life of higher cost secondary filters.

Airpad Select Glass

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
Coarse 60%	G3	287 x 596 x 22	1100	38
Coarse 60%	G3	296 x 296 x 22	580	38
Coarse 60%	G3	395 x 624 x 22	1600	38
Coarse 60%	G3	496 x 624 x 22	2000	38
Coarse 60%	G3	287 x 596 x 47	1100	40
Coarse 60%	G3	296 x 296 x 47	450	40
Coarse 60%	G3	395 x 624 x 47	1700	40
Coarse 60%	G3	596 x 596 x 47	2300	40
Coarse 60%	G3	287 x 596 x 98	1100	60
Coarse 60%	G3	296 x 296 x 98	600	60
Coarse 60%	G3	395 x 624 x 98	1650	60
Coarse 60%	G3	596 x 596 x 98	2400	60

SPECIFICATION

Recommended air velocity	1.85 m/s	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 100 °C	Moisture resistance	80 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Frame	Moisture-resistant cardboard (standard), or metal (optional)
--------------	--

Airpad Select NoGlass

Product Range



Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Polyester filter medium
- Progressive structure
- Easy installation and handling
- Maintenance-friendly

DESIGN

Synthetic, 100 % polyester filter medium in a robust frame.

APPLICATIONS

Prefiltration for air conditioning and ventilation equipment and/or systems, highly effective for coarse dust.

Airpad Select NoGlass

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
Coarse 60%	G2	245 x 245 x 12	432	70
Coarse 60%	G2	372 x 372 x 12	996	70
Coarse 75%	G3	395 x 624 x 22	1775	75
Coarse 75%	G3	596 x 596 x 22	2558	75
Coarse 80%	G4	245 x 245 x 47	432	80
Coarse 80%	G4	496 x 624 x 47	2228	80
Coarse 80%	G4	596 x 596 x 47	2558	80
Coarse 80%	G4	496 x 624 x 98	2228	85

SPECIFICATION

Recommended air velocity	Flow rate ± 25 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes (excluding metal frame versions)

OPTIONS

Frame	Moisture-resistant cardboard (standard), galvanized steel with grids (optional), or refillable galvanized frame
--------------	---

Aircurve Select

Metal-framed panel filters

Product Range



Applications



Filter Class

G

Coarse



KEY FACTS

- Synthetic filter media
- No fiber shedding
- Stable design
- High dust holding capacity
- Top cost-benefit ratio
- Low weight
- M1-classed media according to NFP92-507

DESIGN

Open-pleated synthetic filter media installed in a lightweight metal case. Supported by galvanized steel mesh on both sides to provide extra pleat stability.

APPLICATIONS

Prefiltration or main filtration for all HVAC systems.

Aircurve Select

Metal-framed panel filters

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
Coarse 65%	G4	592 x 592 x 48	2000	45
			2900	85
Coarse 65%	G4	490 x 592 x 48	1650	45
Coarse 65%	G4	287 x 592 x 48	950	45
Coarse 65%	G4	495 x 495 x 48	1375	45

SPECIFICATION

Recommended air flow	< 3400 m ³ /h	Rec. final pressure drop	Initial pressure x 2 (Max. 450 Pa)
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Flammability	M1 according to NF P92-507

OPTIONS

Frame	Galvanized steel (standard), aluminum, stainless steel
Frame depth	47 or 98 mm

Airpanel Select

Synthetic pleated filter

Product Range



Applications



Filter Class



KEY FACTS

- Compact design
- Specially-finished support grid prevents oxidization
- Chemically-bonded media ensures pleat stability
- Simple installation and handling

DESIGN

Pleated, synthetic filter media laminated onto an expanded diamond grid, which features a special finish to prevent oxidization.

APPLICATIONS

Prefiltration for air conditioning and ventilation equipment and/or systems highly effective with coarse dust.

Airpanel Select

Synthetic pleated filter

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
ISO 16890	mm	m ³ /h	Pa
Coarse 80%	287 x 596 x 47	965	30
Coarse 80%	296 x 296 x 47	494	30
Coarse 80%	395 x 624 x 47	1390	30
Coarse 80%	448 x 448 x 47	1130	30
Coarse 80%	496 x 624 x 47	1744	30
Coarse 80%	596 x 596 x 47	2000	30
		3400	80
Coarse 80%	287 x 596 x 98	964	25
Coarse 80%	296 x 296 x 98	494	25
Coarse 80%	395 x 624 x 98	1390	25
Coarse 80%	496 x 624 x 98	1744	25
Coarse 80%	596 x 596 x 98	2000	25
		3400	65

SPECIFICATION

Recommended air flow	Flow rate ± 25 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity / 90 % cardboard frame
Regenerable	No	Incinerable	Yes, except for metal frames

OPTIONS

Frame	Moisture-resistant cardboard or metal
--------------	---------------------------------------

Airpanel Select XL

Synthetic pleated filter

Product Range



Features

XL

Applications



Filter Class

Coarse



KEY FACTS

- Compact design
- Increased surface area for high dust holding capacity and low pressure drop
- Specially finished support grid prevents oxidization
- Simple installation and handling

DESIGN

Pleated, synthetic filter media laminated onto an expanded diamond grid, which features a special finish to prevent oxidization.

APPLICATIONS

Prefiltration for air conditioning and ventilation equipment and/or systems. Highly effective with coarse dust.

Airpanel Select XL

Synthetic pleated filter

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
ISO 16890	mm	m ³ /h	Pa
Coarse 80%	287 x 596 x 47	965	28
Coarse 80%	296 x 296 x 47	494	28
Coarse 80%	395 x 624 x 47	1390	28
Coarse 80%	448 x 448 x 47	1130	28
Coarse 80%	496 x 624 x 47	1744	28
Coarse 80%	596 x 596 x 47	2000	28
		3400	75
Coarse 80%	287 x 596 x 98	964	22
Coarse 80%	296 x 296 x 98	494	22
Coarse 80%	395 x 624 x 98	1390	22
Coarse 80%	496 x 624 x 98	1744	22
Coarse 80%	596 x 596 x 98	2000	22
		3400	62

SPECIFICATION

Recommended air flow	Flow rate ± 25 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity / 90 % cardboard frame
Regenerable	No	Incinerable	Yes, except for metal frames

OPTIONS

Frame	Moisture-resistant cardboard or metal
--------------	---------------------------------------

Airpanel Select FZL

Product Range



Select

Applications



Filter Class

G

M

Coarse



KEY FACTS

- Self-stable, synthetic filter medium
- Several frame types available
- Easy assembly and handling
- Maintenance-friendly

DESIGN

Pleated, synthetic filter medium, self-stable design, pleats are separated by hotmelt spacers to ensure stability.

APPLICATIONS

Prefiltration for air-conditioning and ventilation equipment and/or systems, highly effective with coarse dust.

OPTIONS

Frame	Polyester, metal or plastic
Gasket	Foamed polyurethane continuous gasket

Airpanel Select

FZL

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
Coarse 70%	G4	285 x 592 x 24	475	35
Coarse 70%	G4	492 x 592 x 24	825	35
Coarse 70%	G4	492 x 622 x 24	875	35
Coarse 70%	G4	592 x 592 x 24	1000	35
Coarse 70%	G4	285 x 592 x 46	950	35
Coarse 70%	G4	492 x 492 x 46	1375	35
Coarse 70%	G4	492 x 592 x 46	1650	35
Coarse 70%	G4	492 x 622 x 46	1750	35
Coarse 70%	G4	592 x 592 x 46	2000	35
Coarse 70%	G4	285 x 285 x 96	650	35
Coarse 70%	G4	395 x 622 x 96	2075	35
Coarse 70%	G4	492 x 622 x 96	2550	35
Coarse 70%	G4	592 x 592 x 96	2900	35
Coarse 80%	M5	285 x 592 x 46	950	45
Coarse 80%	M5	492 x 492 x 46	1375	45
Coarse 80%	M5	492 x 592 x 46	1650	45
Coarse 80%	M5	492 x 622 x 46	1750	45
Coarse 80%	M5	592 x 592 x 46	2000	45
Coarse 80%	M5	285 x 285 x 96	650	45
Coarse 80%	M5	395 x 622 x 96	2075	45
Coarse 80%	M5	492 x 622 x 96	2550	45
Coarse 80%	M5	592 x 592 x 96	2900	45

SPECIFICATION

Recommended air flow	Flow rate ± 25 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes, except for metal frames

Airpanel Eco

FZL

Product Range



Applications



Filter Class



KEY FACTS

- 20% greater filter area than the Airpanel Select FZL
- Self-stable synthetic filter medium
- Several frame types available
- Easy installation and handling
- Maintenance-friendly

DESIGN

Pleated, synthetic filter medium, self-stable design, pleats are separated by hotmelt spacers to ensure stability.

APPLICATIONS

Prefiltration for air-conditioning and ventilation equipment and/or systems, highly effective with coarse dust.

OPTIONS

Frame	Polyester, metal or plastic
Gasket	Foamed polyurethane continuous gasket

Airpanel Eco

FZL

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
Coarse 70%	G4	285 x 592 x 24	450	30
Coarse 70%	G4	395 x 492 x 24	550	30
Coarse 70%	G4	492 x 592 x 24	825	30
Coarse 70%	G4	592 x 592 x 24	1000	30
Coarse 70%	G4	285 x 592 x 46	925	30
Coarse 70%	G4	395 x 492 x 46	1100	30
Coarse 70%	G4	492 x 592 x 46	1650	30
Coarse 70%	G4	592 x 592 x 46	2000	30
Coarse 70%	G4	285 x 592 x 96	1400	30
Coarse 70%	G4	395 x 492 x 96	1575	30
Coarse 70%	G4	492 x 592 x 96	2400	30
Coarse 70%	G4	592 x 592 x 96	2900	30
Coarse 80%	M5	285 x 592 x 46	950	40
Coarse 80%	M5	492 x 492 x 46	1375	40
Coarse 80%	M5	492 x 592 x 46	1650	40
Coarse 80%	M5	492 x 622 x 46	1750	40
Coarse 80%	M5	592 x 592 x 46	2000	40
Coarse 80%	M5	285 x 285 x 96	650	40
Coarse 80%	M5	395 x 622 x 96	2075	40
Coarse 80%	M5	492 x 622 x 96	2550	40
Coarse 80%	M5	592 x 592 x 96	2900	40

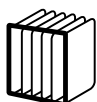
SPECIFICATION

Recommended air flow	Flow rate ± 25 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	90 % rel. humidity
Regenerable	No	Incinerable	Yes

Airpocket Select

Synthetic bag filter

Product Range



Applications



Filter Class



KEY FACTS

- Synthetic filter medium
- Air flows up to 4,250 m³/h
- High dust holding capacity
- High efficiency
- Easy installation and handling

DESIGN

Progressively-structured, polyester media conically-welded into single pockets. Robust and rigid metal or plastic frame.

APPLICATIONS

Prefiltration or main filtration for air conditioning and ventilation systems. Highly effective for coarse dust.

Airpocket Select

Synthetic bag filter

PERFORMANCE DATA

Filter Class		Dimensions	Pockets	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm		m ³ /h	Pa
Coarse 70%	G4	287 x 287 x 360	3	824	35
Coarse 70%	G4	287 x 592 x 360	3	1700	35
Coarse 70%	G4	490 x 592 x 360	5	2900	35
Coarse 70%	G4	592 x 592 x 360	6	3400	35
Coarse 80%	M5	287 x 287 x 600	3	824	50
Coarse 80%	M5	287 x 592 x 600	3	1700	50
Coarse 80%	M5	490 x 592 x 600	5	2900	50
Coarse 80%	M5	592 x 592 x 600	6	3400	50

SPECIFICATION

Recommended air velocity	0.933 m/s	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes – plastic frame only

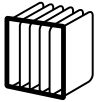
OPTIONS

Frame	Galvanized steel or plastic
Header depth	25 or 20 mm
Gasket	Flat gasket

Airpocket Eco

Long-life bag filter

Product Range



Applications



Filter Class

G

Coarse



KEY FACTS

- Long service life
- Fully incinerable
- Free of glass fibers
- Low pressure drop

DESIGN

Progressively-structured synthetic media in a polypropylene frame.

APPLICATIONS

Prefiltration or main filtration for air-conditioning and ventilation systems.

Airpocket Eco

Long-life bag filter

PERFORMANCE DATA

Filter Class		Dimensions	Pockets	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm		m ³ /h	Pa
Coarse 70%	G4	287 x 592 x 360	2	1700	45
Coarse 70%	G4	592 x 592 x 360	4	3400	45
Coarse 70%	G4	287 x 592 x 500	2	1700	40
Coarse 70%	G4	592 x 592 x 500	4	3400	40
Coarse 70%	G4	287 x 592 x 635	2	1700	35
Coarse 70%	G4	592 x 592 x 635	4	3400	35

SPECIFICATION

Recommended air flow	Flow rate \pm 15 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes (excluding metal frame versions)

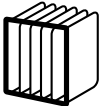
OPTIONS

Frame	Galvanized steel or plastic
Header depth	25 mm

Airpocket Pro Rigid

Assured Performance

Product Range



Features



Applications



Filter Class

Coarse



KEY FACTS

- Self-supporting pockets remain rigid during air flow variations to eliminate shedding and dust bypass
- 100% synthetic filter media with a progressive density to maximize dust holding capacity
- Extremely high burst resistance (up to > 8000 Pa) for safety in even the toughest of applications
- Metal-free construction is corrosion proof and resistant to humidity
- Aerodynamic, tapered pockets with tube spacers provide an even air flow distribution for a lower pressure drop and longer life

DESIGN

Thermally-bonded, synthetic filter media with a multi-layered, progressive density. Rigid, V-shaped pockets are secured in a shock-resistant PU frame. Tubular pocket spacers minimize the air flow resistance and ensure an even dirt loading.

APPLICATIONS

Prefilters for HVAC, gas turbine and industrial applications. Particularly suited for humid environments with snow, fine rain, or high concentrations of mist or fog.

Airpocket Pro Rigid

Assured Performance

PERFORMANCE DATA

Filter Class	Dimensions	Pockets	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	mm		m ³ /h	Pa	kWh/year	Eurovent 2019
Coarse 80%	595 x 595 x 620	6	3400	32	-	-
			4250	50		

SPECIFICATION

Recommended air flow	< 5000 m ³ /h	Recommended final pressure drop	600 Pa
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes
Fire classification	E d0 according to EN 13501		



Fine Dust Filters

Used to separate: PM1, PM2.5, soot, cement dust, spores and larger bacteria.

Fine dust filters serve either as final filters for HVAC and similar applications, or as prefilters for EPA, HEPA or ULPA filters in ultra-clean environments.

Fine dust filters typically feature either a mini-pleated media in a variety of frame styles, or are formed into pockets in a bag filter.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
Fine Dust Filters	64																							
Airpanel Eco	66	•	•						•	•	•													
Airpanel Eco S	68	•							•	•	•													
Airsquare Select	70	•			•				•	•														
Airsquare Select Flange	72	•	•	•					•	•														
Airsquare Pro Flange HT	74	•		•					•	•								•						
Airpocket Select	76	•		•					•	•														
Airpocket Eco	78	•		•					•	•														
Airpocket Eco Glass	80			•	•				•	•					•									
Airpocket Pro Rigid	82	•		•					•	•	•		•											
Aircube Eco 3V	84	•	•	•					•	•														
Aircube Select 4V	86	•		•					•	•														
Aircube Eco 4V	88	•	•	•					•	•														
Aircube Eco S 4V	90				•				•	•														
Aircube Pro HT	92	•	•	•					•	•								•						
Aircube Pro Refill	94	•	•	•					•	•												•		
Aircube N Eco	96				•				•	•														

Packing more into each millimeter. Airpocket Eco's wave media provides a greater filter area and allows dirt to be depth loaded within the media.

Airpanel Eco

Synthetic pleated filter

Product Range



Applications



Filter Class

M

ePM10



KEY FACTS

- High efficiency panel
- Robust to reduce the risk of damage during installation
- Space-saving low depth

DESIGN

Electrostatically-charged synthetic media pleated with a robust wire backing.

APPLICATIONS

Suitable for use in close control air conditioning units, such as computer rooms and installations requiring a high degree of cleanliness.



Airpanel Eco

Synthetic pleated filter

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
ePM10 80%	M6	245 x 245 x 47	260	60
ePM10 80%	M6	245 x 496 x 47	525	60
ePM10 80%	M6	287 x 596 x 47	750	60
ePM10 80%	M6	296 x 296 x 47	380	60
ePM10 80%	M6	395 x 496 x 47	845	60
ePM10 80%	M6	496 x 496 x 47	1060	60
ePM10 80%	M6	496 x 624 x 47	1330	60
ePM10 80%	M6	596 x 596 x 47	1500	60

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	90 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Frame	Standard: cardboard. Optional: galvanized steel
Gasket	EPDM flat gasket

Airpanel Eco S

Long-life filter panels

Product Range



Applications



Filter Class

M

ePM10



KEY FACTS

- Large filter surface area
- Excellent energy efficiency performance
- Self-stable, synthetic filter medium
- No fiber shedding
- Long service life from a high dust holding capacity

DESIGN

Self-supporting pleated synthetic media. Pleats are affixed with extruded hotmelt to ensure optimum spacing and stability.

APPLICATIONS

Prefiltration or primary filtration for all HVAC systems.



Airpanel Eco S

Long-life filter panels

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm	m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 50%	M5	287 x 592 x 48	1700	95	-	E
ePM10 50%	M5	490 x 592 x 48	2800	95	-	E
ePM10 50%	M5	592 x 592 x 48	2000	30	> 1100	E
			3400	95		
ePM10 50%	M5	287 x 592 x 96	1700	60	-	D
ePM10 50%	M5	490 x 592 x 96	2800	60	-	D
ePM10 50%	M5	592 x 592 x 96	2800	38	942	D
			3400	60		

SPECIFICATION

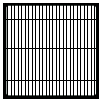
Recommended air flow	< 5000 m ³ /h	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 80 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes
Fire Classification	E d0 according to EN 13501-1:2010		

OPTIONS

Frame depth	45, 48, 78 or 96 mm
Frame material	Plastic or galvanized steel

Airsquare Select Mini-pleated filter

Product Range



Applications



Filter Class

M F

ePM10

ePM1



KEY FACTS

- Large filter area with low installation depth
- Stable compact design
- Lightweight

DESIGN

Mini-pleated, microglass media in a robust plastic frame. Hotmelt separators ensure an even air flow across the filter area and the hollow profile frame minimizes weight.

APPLICATIONS

Ideal for use as pre or main filtration in HVAC systems where space is limited.



Airsquare Select Mini-pleated filter

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
ePM10 55%	M5	592 x 592 x 48	2000	30
			2900	50
ePM10 75%	M6	592 x 592 x 48	2000	55
			2900	90
ePM1 55%	F7	592 x 592 x 48	2000	90
			2900	120
ePM1 80%	F9	592 x 592 x 48	2000	105
			2900	135
ePM10 55%	M5	592 x 592 x 96	2900	50
ePM10 75%	M6	592 x 592 x 96	2900	85
ePM1 55%	F7	592 x 592 x 96	2900	110
ePM1 80%	F9	592 x 592 x 96	2900	170

Performance data is for products with a plastic frame, no gasket and no grid. Alternative options are outlined below.

SPECIFICATION

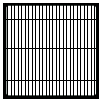
Recommended air flow	Flow rate ± 20 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Frame	Plastic, cardboard, steel, or PET/media frame
Gasket	Foamed polyurethane continuous gasket or EPDM flat gasket
Grid	Plastic grid, one or two-sided

Airsquare Select Flange

Product Range



Select

Applications



Filter Class

M

F

ePM10

ePM1



KEY FACTS

- Microglass fiber paper – no fiber loss or shedding
- Mini-pleats provide a large filter area
- Lightweight for easy handling
- Fully incinerable for simple environmentally-friendly disposal

DESIGN

Mini-pleated, microglass media in a robust plastic frame. Hotmelt separators ensure an even air flow across the filter area and the hollow profile frame minimizes weight.

APPLICATIONS

Ideal for use in general air conditioning systems where space is restricted or a rigid filter construction is required to combat turbulence, variable flow rates or vibrations.



Airsquare Select Flange

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
ePM10 55%	M5	592 x 592 x 100	2900	55
ePM10 75%	M6	592 x 592 x 100	2900	85
ePM1 55%	F7	592 x 592 x 100	2900	110
ePM1 80%	F9	592 x 592 x 100	2900	170

SPECIFICATION

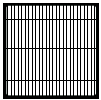
Recommended air flow	Flow rate ± 10 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Gasket	EPDM or polyurethane foam gasket
Header Depth	25 mm

Airsquare Pro Flange HT

Product Range



Features



Applications



Filter Class

M

F

ePM10

ePM1



KEY FACTS

- Operating temperature up to 120°C
- Microglass fiber with no risk of shedding
- Large filter surface area for high dust holding capacity
- Extremely high burst pressure
- Compact installation depth of only 88 mm

DESIGN

Microglass fiber media, pleated with cotton thread separators and held in a rigid, galvanized steel frame.

APPLICATIONS

Ideal for use as a pre or final filter in applications that require a high degree of safety.



Airsquare Pro

Flange HT

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
ePM10 75%	M6	592 x 592 x 88	2900	110
ePM1 55%	F7	592 x 592 x 88	2900	135
ePM1 80%	F9	592 x 592 x 88	2900	170

SPECIFICATION

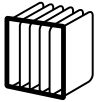
Recommended air flow	Flow rate ± 10 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Grid	Galvanized steel, one or two-sided
Header Depth	25 mm

Airpocket Select Synthetic Bag Filter

Product Range



Select

Applications



Filter Class

M

F

ePM10

ePM1



KEY FACTS

- Synthetic, melt-blown media
- Excellent cost-benefit ratio
- Easy installation and handling

DESIGN

Bag filter with a metal or plastic frame. Individual pockets are constructed from a multilayered, polypropylene melt-blown media. Pockets are designed to inflate and remain separated from one another to allow even distribution of the air flow across the entire filter.

APPLICATIONS

Prefiltration or main filtration for air-conditioning and ventilation systems in a wide range of applications, such as hospitals, computer suites, offices and public buildings.

OPTIONS

Frame	Plastic or galvanized steel
Gasket	EPDM flat gasket
Header depth	25 mm or 20 mm



Airpocket Select Synthetic Bag Filter

Performance data is for products with a plastic frame, 25 mm header and no gasket. Alternative options are outlined on the previous page. Pocket depths are available between 100 mm and 762 mm.

PERFORMANCE DATA

Filter Class		Dimensions	Pockets	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm		m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 50%	M5	592 x 592 x 600	6	3400	45	569	B
ePM10 50%	M5	490 x 592 x 600	5	2800	45		B
ePM10 50%	M5	287 x 592 x 600	3	1700	45		B
ePM10 75%	M6	592 x 592 x 535	8	3400	70	3489	E
ePM10 75%	M6	592 x 592 x 635	6	3400	95	2662	E
ePM10 75%	M6	592 x 592 x 635	8	3400	70	1835	E
ePM10 75%	M6	592 x 892 x 635	8	5100	70		E
ePM10 75%	M6	490 x 592 x 635	6	2800	70		E
ePM10 75%	M6	287 x 592 x 635	4	1700	70		E
ePM1 60%	F7	592 x 592 x 635	8	3400	120	2189	E
ePM1 60%	F7	592 x 592 x 635	10	3400	120	2031	D
ePM1 60%	F7	592 x 892 x 635	10	5100	120		D
ePM1 60%	F7	490 x 592 x 635	8	2800	120		D
ePM1 60%	F7	287 x 592 x 635	5	1700	120		D
ePM1 70%	F8	592 x 592 x 635	8	3400	160	2402	E
ePM1 70%	F8	592 x 892 x 635	8	5100	160		E
ePM1 70%	F8	490 x 592 x 635	6	2800	160		E
ePM1 70%	F8	287 x 592 x 635	4	1700	160		E
ePM1 80%	F9	592 x 592 x 535	8	3400	225	> 3500	E
ePM1 80%	F9	592 x 592 x 635	8	3400	180	2345	D
ePM1 80%	F9	592 x 592 x 635	10	3400	175	2245	D
ePM1 80%	F9	592 x 892 x 635	8	5100	180		D
ePM1 80%	F9	490 x 592 x 635	6	2800	180		D
ePM1 80%	F9	287 x 592 x 635	4	1700	180		D

SPECIFICATION

Recommended air flow	Flow rate ± 15 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes (excluding metal frame)

Airpocket Eco

Long-life bag filter

Product Range



Applications



Filter Class

M

F

ePM10

ePM1



KEY FACTS

- Highest energy efficiency
- Maximum reliability
- Multi-layer structure with built-in prefilter for maximum life

DESIGN

Pocket filters built with metal or plastic frame. Single pockets made from a synthetic, wave-structured media are tailor sewn with conical spacer seams for an optimal V shape.

APPLICATIONS

Prefiltration or main filtration for air conditioning and ventilation systems.

OPTIONS

Frame	Plastic or galvanized steel
Gasket	EPDM flat gasket
Header depth	25 mm
Silicon free	Also available silicon free



Airpocket Eco

Long-life bag filter

PERFORMANCE DATA

Filter Class		Dimensions	Pockets	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm		m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 50%	M5	592 x 592 x 360	6	3400	45	584	B
ePM10 50%	M5	592 x 592 x 500	4	3400	40	531	A
ePM10 50%	M5	592 x 592 x 500	6	3400	40	531	A
ePM10 50%	M5	592 x 592 x 635	4	3400	35	447	A+
ePM10 50%	M5	592 x 592 x 635	6	3400	35	403	A+
ePM10 60%	M5	592 x 592 x 360	4	3400	55	923	D
ePM10 60%	M5	592 x 592 x 500	4	3400	45	627	B
ePM10 60%	M5	592 x 592 x 635	4	3400	35	524	A
ePM10 70%	M6	592 x 592 x 500	4	3400	55	795	B
ePM10 70%	M6	592 x 592 x 500	6	3400	45	578	A+
ePM10 70%	M6	592 x 592 x 635	4	3400	40	573	A+
ePM10 70%	M6	592 x 592 x 635	6	3400	40	527	A+
ePM1 65%	F7	592 x 592 x 500	10	3400	75	1013	B
ePM1 65%	F7	592 x 592 x 635	6	3400	100	1597	D
ePM1 65%	F7	592 x 592 x 635	8	3400	80	1048	B
ePM1 65%	F7	592 x 592 x 635	10	3400	60	790	A+
ePM1 85%	F9	592 x 592 x 500	8	3400	105	1531	C
ePM1 85%	F9	592 x 592 x 500	10	3400	90	1396	A
ePM1 85%	F9	592 x 592 x 635	8	3400	100	1186	A
ePM1 85%	F9	592 x 592 x 635	10	3400	75	999	A+
ePM1 90%	F9	592 x 592 x 500	10	3400	105	1396	A
ePM1 90%	F9	592 x 592 x 635	10	3400	90	1151	A+

SPECIFICATION

Recommended air flow	Flow rate ± 15 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes (excluding metal frame versions)

Airpocket Eco Glass

Product Range



Features



Applications



Filter Class

M F

ePM10

ePM1



KEY FACTS

- Glass fiber filter medium
- Guaranteed long-term stability
- High efficiency
- High dust holding capacity

DESIGN

Pocket filters built with metal or plastic frame. Single pockets of biosoluble glass fiber are tailor sewn with conical spacer seams for an optimal V shape.

APPLICATIONS

Prefiltration or main filtration for air conditioning and ventilation systems.



OPTIONS

Frame	Plastic or galvanized steel
Gasket	EPDM flat gasket
Header depth	25 mm or 20 mm
Silicon free	Also available silicon free

SPECIFICATION

Recommended air flow	Flow rate ± 20 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 80 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

Airpocket Eco Glass

Performance data is for products with a plastic frame, 25 mm header and no gasket. Alternative options are outlined on the previous page.

PERFORMANCE DATA

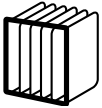
Pocket depths are available between 100 mm and 762 mm.

Filter Class		Dimensions	Pockets	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm		m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 60%	M5	592 x 592 x 635	6	3400	50	770	C
ePM10 60%	M5	287 x 592 x 635	3	1700	50		C
ePM10 60%	M5	490 x 592 x 635	5	2850	50		C
ePM2.5 50%	M6	592 x 592 x 635	6	3400	80	1023	C
ePM2.5 50%	M6	592 x 592 x 635	8	3400	75	931	B
ePM2.5 50%	M6	287 x 592 x 635	4	1700	75		B
ePM2.5 50%	M6	592 x 287 x 635	8	1700	75		B
ePM2.5 50%	M6	592 x 490 x 635	8	2850	75		B
ePM2.5 50%	M6	592 x 892 x 635	8	5100	75		B
ePM1 55%	F7	592 x 592 x 635	8	3400	100	1280	C
ePM1 55%	F7	287 x 592 x 635	4	1700	100		C
ePM1 55%	F7	490 x 592 x 635	6	2850	100		C
ePM1 55%	F7	592 x 287 x 635	8	1700	100		C
ePM1 55%	F7	592 x 490 x 635	8	2850	100		C
ePM1 55%	F7	592 x 892 x 635	8	5100	100		C
ePM1 80%	F9	592 x 592 x 635	8	3400	150	1903	D
ePM1 80%	F9	287 x 592 x 635	4	1700	150		D
ePM1 80%	F9	490 x 592 x 635	8	2850	150		D
ePM1 80%	F9	592 x 287 x 635	8	1700	150		D
ePM1 80%	F9	592 x 490 x 635	8	2850	150		D
ePM1 80%	F9	592 x 892 x 635	8	5100	150		D
ePM1 80%	F9	592 x 592 x 635	10	3400	145	1695	C
ePM1 80%	F9	287 x 592 x 635	5	1700	145		C
ePM1 80%	F9	592 x 287 x 635	10	1700	145		C
ePM1 80%	F9	592 x 490 x 635	10	2850	145		C
ePM1 80%	F9	592 x 892 x 635	10	5100	145		C

Airpocket Pro Rigid

Assured Performance

Product Range



Features



Applications



Filter Class

ePM10

ePM1



KEY FACTS

- Self-supporting pockets remain rigid during air flow variations to eliminate shedding and dust bypass
- 100% synthetic filter media with a progressive density to maximize dust holding capacity
- Extremely high burst resistance (up to > 8000 Pa) for safety in even the toughest of applications
- Metal-free construction is corrosion proof and resistant to humidity
- Aerodynamic, tapered pockets with tube spacers provide an even air flow distribution for a lower pressure drop and longer life

DESIGN

Thermally-bonded, synthetic filter media with a multi-layered, progressive density. Rigid, V-shaped pockets are secured in a shock-resistant PU frame. Tubular pocket spacers minimize the air flow resistance and ensure an even dirt loading.

APPLICATIONS

Pre and final filters for HVAC, gas turbine and industrial applications. Particularly suited for humid environments with snow, fine rain, or high concentrations of mist or fog.

Airpocket Pro Rigid

Assured Performance

PERFORMANCE DATA

Filter Class	Dimensions	Pockets	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	mm		m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 55%	595 x 595 x 620	6	3400	50	>1100	E
			4250	67		
ePM1 60%	595 x 595 x 620	8	3400	150	> 2050	E
			4250	195		

SPECIFICATION

Recommended air flow	< 5000 m ³ /h	Recommended final pressure drop	600 Pa
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes
Fire classification	E d0 according to EN 13501		

Aircube Eco 3V

3V compact filter

Product Range



Applications



Filter Class



KEY FACTS

- For air flow rates up to 5,000 m³/h
- High efficiency
- Top cost-benefit ratio
- Low pressure drop
- Stable construction and low weight

DESIGN

Compact filter with a plastic frame in a three-V design and flow-optimized profiles. Pleat pack comprising microglass paper with hotmelt bead spacing.

APPLICATIONS

Prefiltration or main filtration for all HVAC systems.



Aircube Eco 3V

3V compact filter

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm	m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 75%	M6	592 x 592 x 292	3400	60	852	C
ePM1 60%	F7	592 x 592 x 292	3400	75	992	B
ePM1 80%	F9	592 x 592 x 292	3400	95	1228	A

SPECIFICATION

Recommended air flow	Flow rate ± 20 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Gasket	Polyurethane foam gasket on 1 or 2 sides
Header Depth	25 mm

Aircube Select 4V

4V compact filter

Product Range



Applications



Filter Class



KEY FACTS

- Mini-pleat technology
- Top cost-benefit ratio
- Low weight

DESIGN

Compact filter with a 4V design. Constructed from high quality plastic for a light weight and high stability. Integrated handle for easy transportation and installation.

APPLICATIONS

Prefiltration or main filtration for all HVAC systems.



Aircube Select 4V

4V compact filter

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm	m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 55%	M5	592 x 592 x 292	3400	50	667	C
ePM10 55%	M5	592 x 490 x 292	2800	50		C
ePM10 55%	M5	592 x 287 x 292	1700	50		C
ePM10 70%	M6	592 x 592 x 292	3400	60	821	C
ePM10 70%	M6	592 x 490 x 292	2800	60		C
ePM10 70%	M6	592 x 287 x 292	1700	60		C
ePM1 55%	F7	592 x 592 x 292	3400	75	1012	B
ePM1 55%	F7	592 x 490 x 292	2800	75		B
ePM1 55%	F7	592 x 287 x 292	1700	75		B
ePM1 80%	F9	592 x 592 x 292	3400	100	1390	B
ePM1 80%	F9	592 x 490 x 292	2800	100		B
ePM1 80%	F9	592 x 287 x 292	1700	100		B

Performance data is for products with a plastic frame, 25 mm header and no gasket. Alternative options are outlined below.

SPECIFICATION

Recommended air flow	< 4250 m ³ /h	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Gasket	Continuous polyurethane or flat neoprene on 1 or 2 sides
Header Depth	25 mm

Aircube Eco 4V

4V compact filter

Product Range



Applications



Filter Class



KEY FACTS

- Optimized for low energy consumption
- Long lifetime
- Stable and lightweight construction
- Filter series tested according to EN 13501-1:2010 as E d0

DESIGN

Compact filter with a four-V design made of plastics for a light weight, stable construction. Integrated handle for easy transport and installation.

APPLICATIONS

Prefiltration or main filtration for all HVAC systems.



Aircube Eco 4V

4V compact filter

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm	m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 70%	M6	592 x 592 x 292	3400	55	797	B
			4250	80		-
ePM10 70%	M6	592 x 490 x 292	2800	55		B
ePM10 70%	M6	592 x 287 x 292	1700	55		B
ePM1 60%	F7	592 x 592 x 292	3400	65	808	A+
			4250	85		-
ePM1 60%	F7	592 x 490 x 292	2800	65		A+
ePM1 60%	F7	592 x 287 x 292	1700	65		A+
ePM1 80%	F9	592 x 592 x 292	3400	90	1227	A
			4250	120		
ePM1 80%	F9	592 x 490 x 292	2800	90		A
ePM1 80%	F9	592 x 287 x 292	1700	90		A

Performance data is for products with a plastic frame, 25 mm header and no gasket. Alternative options are outlined below.

SPECIFICATION

Recommended air flow	< 5000 m ³ /h	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes
Fire Classification	E d0 according to EN 13501-1:2010		

OPTIONS

Header depth	25 mm or 20 mm
Gasket	Continuous polyurethane on 1 or 2 sides
Frame material	Plastic

Aircube Eco S 4V

For the lowest possible energy consumption

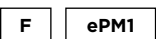
Product Range



Applications



Filter Class



KEY FACTS

- Optimized for low energy consumption
- Long lifetime
- Stable and lightweight construction
- Tested E d0 according to EN 13501-1:2010

DESIGN

Compact filter with a high-tech nanofiber-based media. The 4V design is made from robust plastic for a light weight but stable construction. An integrated handle enables ease of transportation and installation.

APPLICATIONS

Ideal for use as either the pre- or main filtration stage in all types of HVAC systems – particularly where a low pressure drop and low energy consumption are important.

Aircube Eco S 4V

For the lowest possible energy consumption

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm	m ³ /h	Pa	kWh/year	Eurovent 2019
ePM1 55%	F7	592 x 592 x 292	3400	57	767	A+
			4250	85		
ePM1 55%	F7	592 x 490 x 292	2800	57		A+
ePM1 55%	F7	592 x 402 x 292	2200	57		A+
ePM1 55%	F7	592 x 287 x 292	1700	57		A+

Performance data is for products with a plastic frame, 25 mm header and no gasket. Alternative options are outlined below.

SPECIFICATION

Recommended air flow	< 5000 m ³ /h	Rec. final pressure for efficient energy use acc. to EN 13053	Initial pressure drop x 2 (Max 450 Pa)
Heat resistance	Max. 70 °C	Moisture resistance	80 % rel. humidity
Regenerable	No	Incinerable	Yes
Fire Classification	E d0 according to EN 13501-1:2010		

OPTIONS

Header depth	25 mm or 20 mm
Gasket	Continuous polyurethane on 1 or 2 sides
Frame material	Plastic

Aircube Pro

HT

Product Range



Features



Applications



Filter Class

M

F

ePM10

ePM1



KEY FACTS

- High operating temperature of 120 °C
- For air flow rates up to 5000 m³/h
- Integrated temperature indicator reduces risk of filter failure
- High efficiency
- Low pressure drop
- Stable construction and low weight.
- Top cost-benefit ratio

DESIGN

Compact filter with a four-V design made of special, high temperature resistant plastic for a lightweight, stable construction. In-built temperature monitor indicates periods of high temperature for greater filter safety and improved process control.

APPLICATIONS

Prefiltration or main filtration for demanding HVAC systems.



Aircube Pro

HT

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm	m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 70%	M6	592 x 592 x 292	3400	55	797	B
ePM10 70%	M6	592 x 490 x 292	2800	55		
ePM10 70%	M6	592 x 402 x 292	2190	55		
ePM10 70%	M6	592 x 287 x 292	1700	55		
ePM1 55%	F7	592 x 592 x 292	3400	75	998	B
ePM1 55%	F7	592 x 490 x 292	2800	75		
ePM1 55%	F7	592 x 402 x 292	2190	75		
ePM1 55%	F7	592 x 287 x 292	1700	75		
ePM1 80%	F9	592 x 592 x 292	3400	90	1227	A
ePM1 80%	F9	592 x 490 x 292	2800	90		
ePM1 80%	F9	592 x 402 x 292	2190	90		
ePM1 80%	F9	592 x 287 x 292	1700	90		

SPECIFICATION

Recommended air flow	Flow rate \pm 20 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Gasket	EPDM gasket on 1 or 2 sides
Header Depth	25 mm

Aircube Pro Refill

Product Range



Features



Applications



Filter Class

M

F

ePM10

ePM1



KEY FACTS

- Changeable filter system
- Simple filter-change process requiring no tools
- Lightweight for easy installation
- Incinerable
- Metal and silicon free
- Reduces waste and disposal costs

DESIGN

Replaceable filter cells made from microglass paper media with thermoplastic separators. Cells are held in place with a tongue and groove profile and sealed with a rubber gasket.

APPLICATIONS

Prefiltration or main filtration for all HVAC systems.



Aircube Pro

Refill

PERFORMANCE DATA

Filter Class		Dimensions	Flow Rate*	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	EN 779	mm	m ³ /h	Pa	kWh/year	Eurovent 2019
ePM10 75%	M6	360 x 550 x 53	3400	90	1144	D
ePM1 50%	F7	360 x 550 x 53	3400	90	1170	C
ePM1 80%	F9	360 x 550 x 53	3400	115	1529	C

* Flow rate based on two Vs installed in a 592 x 592 mm holding frame

SPECIFICATION

Recommended air flow	Flow rate ± 20 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 80 °C	Moisture resistance	100 % rel. humidity
Regenerable	Yes	Incinerable	Yes

Aircube N Eco

Product Range



Applications



Filter Class

F

ePM1



KEY FACTS

- For high flow rates up to 4,000 m³/h
- Compact design saves space
- Large active media area
- Rigid and robust
- Optional plastic frame is incinerable and lightweight

DESIGN

V-shaped pleated cells with special thread separators to ensure the even spacing of the pleats. Available in various casing materials. Integrated handle for ease of installation.

APPLICATIONS

Fine dust filters for terminal outlets in ventilation and clean room systems with high air quantities.

Aircube N

Eco

PERFORMANCE DATA

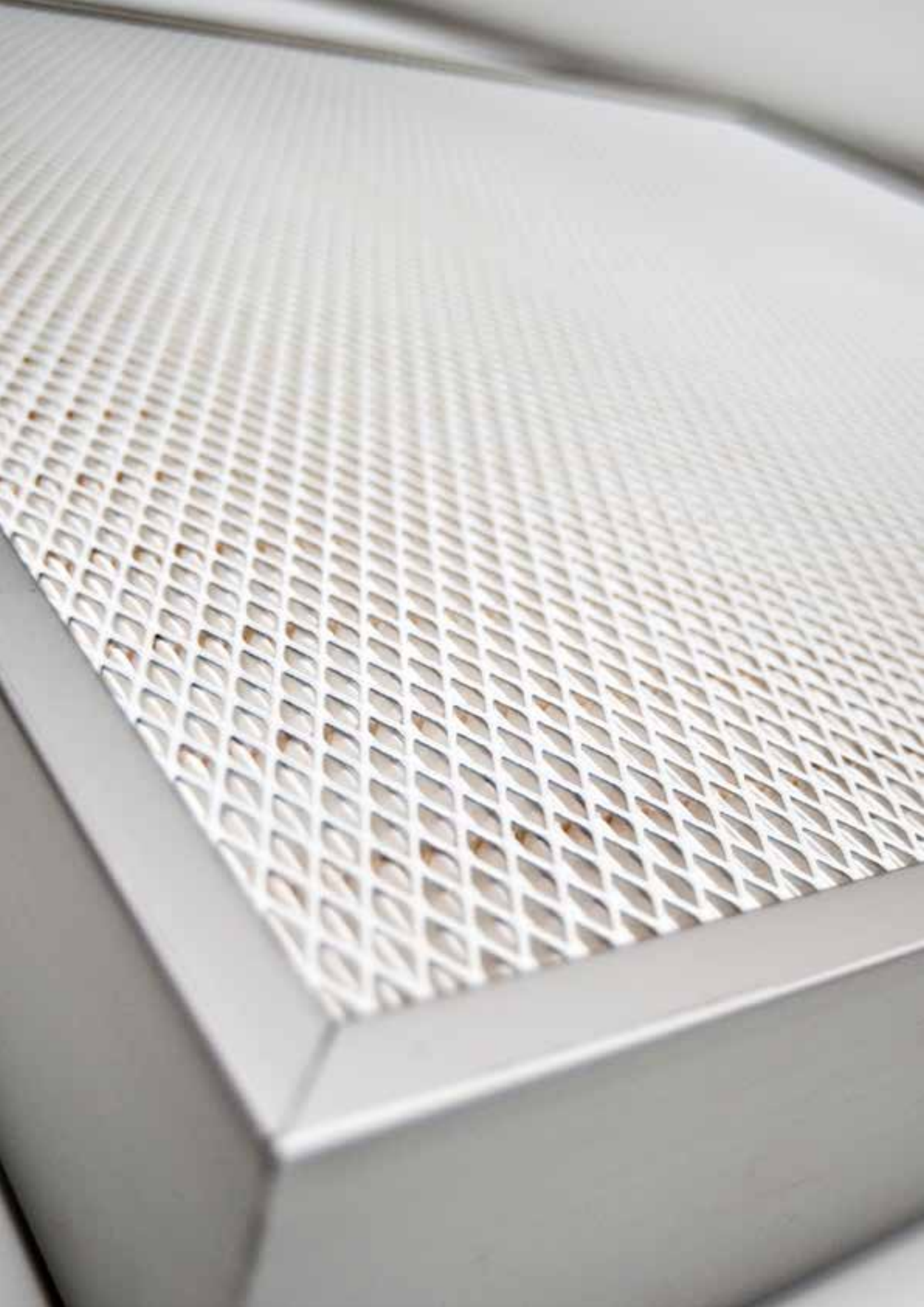
Filter Class		Dimensions	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm	m ³ /h	Pa
ePM1 55%	F7	610 x 610 x 292	4000	160
ePM1 80%	F9	610 x 610 x 292	4000	170

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Frame	Galvanized steel, stainless steel, plastic
Gasket	EPDM flat gasket
Dimensions (mm)	305 x 610; 290 x 595; 595 x 595; 610 x 610; 610 x 762



High Efficiency Filters

Used to separate: Tiny contaminants, such as germs, viruses, carbon black and radioactive particles.

EPA, HEPA and ULPA filters can remove up to 99.99999% of particles. These high efficiency filters are used to protect people – in applications such as biotechnology and pharmaceutical research, or processes – in the fields such as nanotechnology and microelectronics.

High efficiency filters come in a number of shapes and sizes, from space-saving panels to high-capacity, deep-pleated filters.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
High Efficiency Filters	98																							
Nanoclass Square Select	100					•	•		•	•							•							
Nanoclass Square Eco FL	102						•		•	•							•							
Nanoclass Square Eco FC	104						•		•	•							•							
Nanoclass Square Eco KE	108						•		•	•							•							
Nanoclass Square Eco TC	110						•		•	•							•							
Nanoclass Square Pro FL HT	112						•		•	•							•	•						
Nanoclass Square Pro Membrane FC	114						•		•	•							•		•					
Nanoclass Square Pro Membrane TC	116						•		•	•							•		•					
Nanoclass Square Pro Membrane KE	118						•		•	•							•		•					
Nanoclass Square Pro Flange HT	120					•			•	•							•	•						
Nanoclass Deeppleat Select	122					•	•		•	•							•							
Nanoclass Cube N Select	124					•	•		•	•							•							
Nanoclass Cube N Eco	126					•	•		•	•							•							
Nanoclass Cube N Pro HT	128								•	•							•	•						
Nanoclass Cube Pro	130					•			•	•							•							
Nanoclass Cube Pro HT	132								•	•							•	•						
Nanoclass Cube 3V Pro Membrane	134					•			•	•							•							
Nanoclass Wedge	136					•	•		•	•							•							
Nanoclass Tube Pro	138						•		•	•							•							
Nanoclass Tube Pro JG	140						•		•	•							•							

Ultra-high performance no matter the conditions.
Nanoclass Square Pro FL HT features an anodized aluminum frame for performance you can count upon.

Nanoclass Square Select EPA and HEPA filters

Product Range



Select

Features



Applications



Filter Class

E

H



KEY FACTS

- High efficiency
- Mini-pleat technology
- Various frame depths and types
- Low pressure drop
- Guaranteed leak free

DESIGN

Filter medium constructed from various grades of microglass fiber paper folded into a pack. The filter pack is sealed into a wooden, galvanized steel or stainless steel frame with a solid polyurethane sealant. Every filter is tested according to EN 1822:2009, and is supplied with a test report and three-part serialized product label.

APPLICATIONS

Final filter for clean rooms and clean workbenches. Used in the separation of viruses, bacteria, toxic dust and aerosols in hospitals, medical institutes, chemists, laboratories, pharmacies, food processing facilities, and the microelectronics industry.

Nanoclass Square Select EPA and HEPA filters

PERFORMANCE DATA

Filter Class	Dimensions	Media Area/ Capacity	Flow Rate	Pressure Drop
EN 1822	mm		m ³ /h	Pa
E11	610 x 610 x 78	Standard	2500	250
H13	610 x 610 x 78	Standard	1260	250
H13	610 x 610 x 150	Standard	2100	250
H13	610 x 610 x 150	Medium	2400	250
H13	610 x 610 x 292	Standard	2100	250
H13	610 x 610 x 292	Medium	2400	250
H13	610 x 610 x 292	High	3400	250
H14	610 x 610 x 78	Standard	1140	250
H14	610 x 610 x 150	Standard	1850	250
H14	610 x 610 x 150	Medium	2150	250
H14	610 x 610 x 292	Standard	1850	250
H14	610 x 610 x 292	Medium	2150	250

Performance data is for products with an MDF wooden frame, a continuous polyurethane on one side and no grid. Alternative options are outlined below.

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	Initial pressure drop x 2 (max. 600 Pa)
Heat resistance	Max. 80 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes (depending on frame material)

OPTIONS

Header Depth	Various upon request
Gasket	Continuous polyurethane or flat neoprene, 1 or 2 sides
Grid	Various types, 1 or 2 sides
Frame Material	MDF wood, galvanized steel, stainless Steel, plastic

Nanoclass Square Eco FL

Product Range



Features



Applications



Filter Class

H



KEY FACTS

- High efficiency (H13 > 99.95 %, H14 > 99.995 % at MPPS)
- Available in depths of 30, 68, 90 and 150 mm
- Minipleat technology for laminar flow
- Low pressure drop
- Guaranteed leak free

DESIGN

Filter medium constructed from various grades of microglass fiber paper folded into a pack. As standard, the pack is sealed into an anodized aluminum frame.

APPLICATIONS

Final filter for clean rooms and clean workbenches. For separation of viruses, bacteria, toxic dust and aerosols, in hospitals/medical institutes, chemists, laboratories, clean rooms, pharmacy, food processing industry, microelectronics.

Nanoclass Square Eco FL

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H13	305 x 305 x 30	150	195
H13	305 x 610 x 30	300	195
H13	305 x 762 x 30	375	195
H13	305 x 915 x 30	450	195
H13	457 x 457 x 30	350	195
H13	457 x 610 x 30	450	195
H13	610 x 610 x 30	600	195
H13	610 x 762 x 30	750	195
H13	610 x 915 x 30	900	195
H13	610 x 1220 x 30	1200	195

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H14	305 x 305 x 30	150	100
H14	305 x 610 x 30	150	100
H14	305 x 762 x 30	175	100
H14	305 x 915 x 30	200	100
H14	457 x 457 x 30	150	100
H14	457 x 610 x 30	200	100
H14	610 x 610 x 30	280	100
H14	610 x 762 x 30	350	100
H14	610 x 915 x 30	425	100
H14	610 x 1220 x 30	575	100

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa (Max. 600 Pa)
Heat resistance	Up to 70 °C (Peak 90 °C)	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

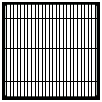
Gasket	Neoprene flat gasket, 1 or 2 sides
Grid	1 or 2 sides

PRESSURE DROP AT DIFFERENT DEPTHS

Depth	Filter Class	Pressure Drop
mm		Pa
68	H13	110
	H14	120
90	H13	90
	H14	100
150	H13	85
	H14	90

Nanoclass Square Eco FC

Product Range



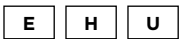
Features



Applications



Filter Class



KEY FACTS

- High efficiency across all filter classes
- Available in filter classes E11 to U16
- Available in depths of 69, 70, 78, 90, 110, 115 and 150 mm
- Minipleat technology for laminar flow
- Low pressure drop
- Guaranteed leak free

DESIGN

Filter medium constructed from various grades of microglass fiber paper folded into a pack. As standard, the pack is sealed into an anodized aluminum frame with a continuous, one-piece gasket to ensure a perfect seal between the filter assembly and its housing. Grid to front and rear faces.

APPLICATIONS

Final filter for clean rooms and clean workbenches. For separation of viruses, bacteria, toxic dust and aerosols, in hospitals/medical institutes, chemists, laboratories, clean rooms, pharmacy, food processing industry, microelectronics.

Nanoclass Square Eco FC

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H13	305 x 305 x 69	150	95
H13	305 x 610 x 69	300	95
H13	305 x 762 x 69	375	95
H13	305 x 915 x 69	450	95
H13	457 x 457 x 69	350	95
H13	457 x 610 x 69	450	95
H13	610 x 610 x 69	600	95
H13	610 x 762 x 69	750	95
H13	610 x 915 x 69	900	95
H13	610 x 1220 x 69	1200	95
H13	762 x 915 x 69	1130	95
H13	762 x 1220 x 69	1500	95
H13	1220 x 1220 x 69	2400	95
H13	305 x 305 x 78	150	95
H13	305 x 610 x 78	300	95
H13	305 x 762 x 78	375	95
H13	305 x 915 x 78	450	95
H13	457 x 457 x 78	350	95
H13	457 x 610 x 78	450	95
H13	610 x 610 x 78	600	95
H13	610 x 762 x 78	750	95
H13	610 x 915 x 78	900	95
H13	610 x 1220 x 78	1200	95
H13	762 x 915 x 78	1130	95
H13	762 x 1220 x 78	1500	95
H13	1220 x 1220 x 78	2400	95

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H13	305 x 305 x 90	150	90
H13	305 x 610 x 90	300	90
H13	305 x 762 x 90	375	90
H13	305 x 915 x 90	450	90
H13	457 x 457 x 90	350	90
H13	457 x 610 x 90	450	90
H13	610 x 610 x 90	600	90
H13	610 x 762 x 90	750	90
H13	610 x 915 x 90	900	90
H13	610 x 1220 x 90	1200	90
H13	762 x 915 x 90	1130	90
H13	762 x 1220 x 90	1500	90
H13	1220 x 1220 x 90	2400	90
H13	305 x 305 x 110	150	90
H13	305 x 610 x 110	300	90
H13	305 x 762 x 110	375	90
H13	305 x 915 x 110	450	90
H13	457 x 457 x 110	350	90
H13	457 x 610 x 110	450	90
H13	610 x 610 x 110	600	90
H13	610 x 762 x 110	750	90
H13	610 x 915 x 110	900	90
H13	610 x 1220 x 110	1200	90
H13	762 x 915 x 110	1130	90
H13	762 x 1220 x 110	1500	90
H13	1220 x 1220 x 110	2400	90

Nanoclass Square Eco FC

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H13	305 x 305 x 150	150	85
H13	305 x 610 x 150	300	85
H13	305 x 762 x 150	375	85
H13	305 x 915 x 150	450	85
H13	457 x 457 x 150	350	85
H13	457 x 610 x 150	450	85
H13	610 x 610 x 150	600	85
H13	610 x 762 x 150	750	85
H13	610 x 915 x 150	900	85
H13	610 x 1220 x 150	1200	85
H13	762 x 915 x 150	1130	85
H13	762 x 1220 x 150	1500	85
H13	1220 x 1220 x 150	2400	85
H14	305 x 305 x 69	150	105
H14	305 x 610 x 69	300	105
H14	305 x 762 x 69	375	105
H14	305 x 915 x 69	450	105
H14	457 x 457 x 69	350	105
H14	457 x 610 x 69	450	105
H14	610 x 610 x 69	600	105
H14	610 x 762 x 69	750	105
H14	610 x 915 x 69	900	105
H14	610 x 1220 x 69	1200	105
H14	762 x 915 x 69	1130	105
H14	762 x 1220 x 69	1500	105
H14	1220 x 1220 x 69	2400	105

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H14	305 x 305 x 78	150	105
H14	305 x 610 x 78	300	105
H14	305 x 762 x 78	375	105
H14	305 x 915 x 78	450	105
H14	457 x 457 x 78	350	105
H14	457 x 610 x 78	450	105
H14	610 x 610 x 78	600	105
H14	610 x 762 x 78	750	105
H14	610 x 915 x 78	900	105
H14	610 x 1220 x 78	1200	105
H14	762 x 915 x 78	1130	105
H14	762 x 1220 x 78	1500	105
H14	1220 x 1220 x 78	2400	105
H14	305 x 305 x 90	150	100
H14	305 x 610 x 90	300	100
H14	305 x 762 x 90	375	100
H14	305 x 915 x 90	450	100
H14	457 x 457 x 90	350	100
H14	457 x 610 x 90	450	100
H14	610 x 610 x 90	600	100
H14	610 x 762 x 90	750	100
H14	610 x 915 x 90	900	100
H14	610 x 1220 x 90	1200	100
H14	762 x 915 x 90	1130	100
H14	762 x 1220 x 90	1500	100
H14	1220 x 1220 x 90	2400	100

Nanoclass Square Eco FC

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H14	305 x 305 x 110	150	100
H14	305 x 610 x 110	300	100
H14	305 x 762 x 110	375	100
H14	305 x 915 x 110	450	100
H14	457 x 457 x 110	350	100
H14	457 x 610 x 110	450	100
H14	610 x 610 x 110	600	100
H14	610 x 762 x 110	750	100
H14	610 x 915 x 110	900	100
H14	610 x 1220 x 110	1200	100
H14	762 x 915 x 110	1130	100
H14	762 x 1220 x 110	1500	100
H14	1220 x 1220 x 110	2400	100

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H14	305 x 305 x 150	150	95
H14	305 x 610 x 150	300	95
H14	305 x 762 x 150	375	95
H14	305 x 915 x 150	450	95
H14	457 x 457 x 150	350	95
H14	457 x 610 x 150	450	95
H14	610 x 610 x 150	600	95
H14	610 x 762 x 150	750	95
H14	610 x 915 x 150	900	95
H14	610 x 1220 x 150	1200	95
H14	762 x 915 x 150	1130	95
H14	762 x 1220 x 150	1500	95
H14	1220 x 1220 x 150	2400	95

SPECIFICATION

Recommended air flow	Flow rate ± 15 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Up to 70 °C (Peak 90 °C)	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

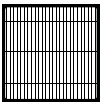
OPTIONS

Gasket	Continuous polyurethane gasket, 1 or 2 sides
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Nanoclass Square Eco

KE

Product Range



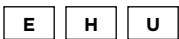
Features



Applications



Filter Class



KEY FACTS

- High efficiency across all filter classes
- Available in filter classes E11 to U16
- Integral knife-edge for use with gel-seal grid ceiling systems
- Available in depths of 86, 109 and 134 mm
- Minipleat technology for laminar flow
- Low pressure drop
- Guaranteed leak free

DESIGN

Filter medium constructed from various grades of microglass fiber paper folded into a pack. As standard, the pack is sealed into an anodized aluminum frame with integrated knife-edge.

APPLICATIONS

Final filter for clean rooms and clean workbenches that use gel-seal grid systems. For separation of viruses, bacteria, toxic dust and aerosols, in hospitals/medical institutes, chemists, laboratories, clean rooms, pharmacy, food processing industry, microelectronics.

Nanoclass Square Eco KE

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H13	305 x 305 x 109	150	90
H13	305 x 610 x 109	300	90
H13	305 x 762 x 109	375	90
H13	305 x 915 x 109	450	90
H13	457 x 457 x 109	350	90
H13	457 x 610 x 109	450	90
H13	610 x 610 x 109	600	90
H13	610 x 762 x 109	750	90
H13	610 x 915 x 109	900	90
H13	610 x 1220 x 109	1200	90
H13	762 x 1220 x 109	1500	90
H13	762 x 915 x 109	1130	90
H13	1220 x 1220 x 109	2400	90

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H14	305 x 305 x 109	150	100
H14	305 x 610 x 109	300	100
H14	305 x 762 x 109	375	100
H14	305 x 915 x 109	450	100
H14	457 x 457 x 109	350	100
H14	457 x 610 x 109	450	100
H14	610 x 610 x 109	600	100
H14	610 x 762 x 109	750	100
H14	610 x 915 x 109	900	100
H14	610 x 1220 x 109	1200	100
H14	762 x 915 x 109	1130	100
H14	762 x 1220 x 109	1500	100
H14	1220 x 1220 x 109	2400	100

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Up to 70 °C (Peak 90 °C)	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Gasket	Continuous polyurethane foam or flat neoprene
Grid	1 or 2 sides

Nanoclass Square Eco TC

Product Range



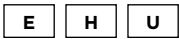
Features



Applications



Filter Class



KEY FACTS

- High efficiency across all filter classes
- Available in filter classes E11 to U16
- Self-healing, fluid gel gasket
- Available in depths of 80, 83, 102, 104 and 128 mm
- Minipleat technology for laminar flow
- Low pressure drop
- Guaranteed leak free

DESIGN

Filter medium constructed from various grades of microglass fiber paper folded into a pack. As standard, the pack is sealed into an anodized aluminum frame with a fluid gel gasket to ensure a perfect seal between the filter assembly and its housing. Grid to front and rear faces.

APPLICATIONS

Final filter for clean rooms and clean workbenches. For separation of viruses, bacteria, toxic dust and aerosols, in hospitals/medical institutes, chemists, laboratories, clean rooms, pharmacy, food processing industry, microelectronics.

Nanoclass Square Eco TC

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H13	305 x 610 x 80	300	90
H13	305 x 762 x 80	375	90
H13	305 x 915 x 80	450	90
H13	457 x 610 x 80	450	90
H13	610 x 610 x 80	600	90
H13	610 x 762 x 80	750	90
H13	610 x 915 x 80	900	90
H13	610 x 1220 x 80	1200	90
H13	762 x 1220 x 80	1500	90
H13	305 x 610 x 104	300	85
H13	305 x 762 x 104	375	85
H13	305 x 915 x 104	450	85
H13	457 x 610 x 104	450	85
H13	610 x 610 x 104	600	85
H13	610 x 762 x 104	750	85
H13	610 x 915 x 104	900	85
H13	610 x 1220 x 104	1200	85
H13	762 x 1220 x 104	1500	85

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H14	305 x 610 x 80	300	100
H14	305 x 762 x 80	375	100
H14	305 x 915 x 80	450	100
H14	457 x 610 x 80	450	100
H14	610 x 610 x 80	600	100
H14	610 x 762 x 80	750	100
H14	610 x 915 x 80	900	100
H14	610 x 1220 x 80	1200	100
H14	762 x 1220 x 80	1500	100
H14	305 x 610 x 104	300	95
H14	305 x 762 x 104	375	95
H14	305 x 915 x 104	450	95
H14	457 x 610 x 104	450	95
H14	610 x 610 x 104	600	95
H14	610 x 762 x 104	750	95
H14	610 x 915 x 104	900	95
H14	610 x 1220 x 104	1200	95
H14	762 x 1220 x 104	1500	95

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Up to 70 °C (Peak 90 °C)	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Gasket	Self-healing fluid gel gasket
Depth*	80, 83, 102, 104 mm

*83 mm technical values are the same as 80 mm,
102 mm technical values are the same as 104 mm

Nanoclass Square Pro

FL HT

Product Range



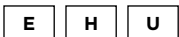
Features



Applications



Filter Class



KEY FACTS

- High efficiency across all filter classes
- Available in filter classes E11 to U16
- High temperature resistance up to 120 °C
- Available in depths of 75 and 95 mm
- Minipleat technology for laminar flow
- Low pressure drop
- Guaranteed leak free

DESIGN

Filter medium constructed from various grades of microglass fiber paper folded into a pack. Continuous thread separators coated with adhesive support the pleats. As standard, the pack is sealed into an anodized aluminum frame.

APPLICATIONS

Final filter for clean rooms and clean workbenches. For separation of viruses, bacteria, toxic dust and aerosols, in hospitals/medical institutes, chemists, laboratories, clean rooms, pharmacy, food processing industry, microelectronics.

Nanoclass Square Pro

FL HT

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m³/h	Pa
H13	305 x 610 x 75	300	90
H13	457 x 457 x 75	350	90
H13	457 x 610 x 75	450	90
H13	610 x 610 x 75	600	90
H13	610 x 762 x 75	750	90
H13	610 x 915 x 75	900	90
H13	610 x 1220 x 75	1200	90
H13	762 x 1220 x 75	1500	90
H13	1220 x 1220 x 75	2400	90
H13	305 x 610 x 95	300	90
H13	457 x 457 x 95	350	90
H13	457 x 610 x 95	450	90
H13	610 x 610 x 95	600	90
H13	610 x 762 x 95	750	90
H13	610 x 915 x 95	900	90
H13	610 x 1220 x 95	1200	90
H13	762 x 1220 x 95	1500	90
H13	1220 x 1220 x 95	2400	90

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m³/h	Pa
H14	305 x 610 x 75	300	105
H14	457 x 457 x 75	350	105
H14	457 x 610 x 75	450	105
H14	610 x 610 x 75	600	105
H14	610 x 762 x 75	750	105
H14	610 x 915 x 75	900	105
H14	610 x 1220 x 75	1200	105
H14	762 x 1220 x 75	1500	105
H14	1220 x 1220 x 75	2400	105
H14	305 x 610 x 95	300	100
H14	457 x 457 x 95	350	100
H14	457 x 610 x 95	450	100
H14	610 x 610 x 95	600	100
H14	610 x 762 x 95	750	100
H14	610 x 915 x 95	900	100
H14	610 x 1220 x 95	1200	100
H14	762 x 1220 x 95	1130	100
H14	1220 x 1220 x 95	2400	100

SPECIFICATION

Recommended air flow	Flow rate \pm 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Up to 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Gasket	Silicon gasket, 1 or 2 sides
Grid	1 or 2 sides

Nanoclass Square Pro Membrane FC

Product Range



Features



Applications



Filter Class

H



KEY FACTS

- High efficiency (H14 > 99.995 % at MPPS)
- Available in depths of 69 and 90 mm
- High tensile strength
- 100% boron free
- Minipleat technology for laminar flow
- Extremely low pressure drop
- Guaranteed leak free

DESIGN

e-PTFE membrane filter media folded into a pack and sealed into an anodized aluminum frame. A continuous, one-piece gasket ensures a perfect seal between the filter assembly and its housing. Grid to front and rear faces.

APPLICATIONS

Final filter for clean rooms and clean workbenches. For separation of viruses, bacteria, toxic dust and aerosols, in hospitals/medical institutes, chemists, laboratories, clean rooms, pharmacy, food processing industry, microelectronics.

Nanoclass Square Pro Membrane FC

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H14	305 x 305 x 69	150	55
H14	305 x 610 x 69	300	55
H14	305 x 762 x 69	375	55
H14	305 x 915 x 69	450	55
H14	457 x 457 x 69	350	55
H14	457 x 610 x 69	450	55
H14	610 x 610 x 69	600	55
H14	610 x 762 x 69	750	55
H14	610 x 915 x 69	900	55
H14	610 x 1220 x 69	1200	55
H14	762 x 915 x 69	1130	55
H14	762 x 1220 x 69	1500	55
H14	1220 x 1220 x 69	2400	55

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H14	305 x 305 x 90	150	55
H14	305 x 610 x 90	300	55
H14	305 x 762 x 90	375	55
H14	305 x 915 x 90	450	55
H14	457 x 457 x 90	350	55
H14	457 x 610 x 90	450	55
H14	610 x 610 x 90	600	55
H14	610 x 762 x 90	750	55
H14	610 x 915 x 90	900	55
H14	610 x 1220 x 90	1200	55
H14	762 x 915 x 90	1130	55
H14	762 x 1220 x 90	1500	55
H14	1220 x 1220 x 90	2400	55

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Up to 70 °C (Peak 90 °C)	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Gasket	Continuous polyurethane gasket, 1 or 2 sides
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Nanoclass Square Pro Membrane TC

Product Range



Features



Applications



Filter Class

H



KEY FACTS

- High efficiency (H14 > 99.995 % at MPPS)
- Self-healing, fluid gel gasket
- Available in depths of 80 and 104 mm
- High tensile strength
- 100% boron free
- Minipleat technology for laminar flow
- Extremely low pressure drop
- Guaranteed leak free

DESIGN

e-PTFE membrane filter media folded into a pack and sealed into an anodized aluminum frame. A fluid gel gasket ensures a perfect seal between the filter assembly and its housing. Grid to front and rear faces.

APPLICATIONS

Final filter for clean rooms and clean workbenches. For separation of viruses, bacteria, toxic dust and aerosols, in hospitals/medical institutes, chemists, laboratories, clean rooms, pharmacy, food processing industry, microelectronics.

Nanoclass Square Pro Membrane TC

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop	Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa	EN 1822	mm	m ³ /h	Pa
H14	305 x 305 x 104	150	55	H14	610 x 610 x 104	600	55
H14	305 x 610 x 104	300	55	H14	610 x 762 x 104	750	55
H14	305 x 762 x 104	375	55	H14	610 x 915 x 104	900	55
H14	305 x 915 x 104	450	55	H14	610 x 1220 x 104	1200	55
H14	457 x 457 x 104	350	55	H14	762 x 1220 x 104	1500	55
H14	457 x 610 x 104	450	55	H14	1220 x 1220 x 104	2400	55

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Up to 70 °C (Peak 90 °C)	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Gasket	Self-healing fluid gel gasket
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Nanoclass Square Pro Membrane KE

Product Range



Features



Applications



Filter Class

H



KEY FACTS

- High efficiency (H14 > 99.995 % at MPPS)
- Integral knife-edge for use with gel-seal grid ceiling systems
- Available in depth of 109 mm
- High tensile strength
- 100% boron free
- Minipleat technology for laminar flow
- Extremely low pressure drop
- Guaranteed leak free

DESIGN

e-PTFE membrane filter media folded into a pack and sealed into an anodized aluminum frame with integrated knife-edge.

APPLICATIONS

Final filter for clean rooms and clean workbenches that use gel-seal grid systems. For separation of viruses, bacteria, toxic dust and aerosols, in hospitals/medical institutes, chemists, laboratories, clean rooms, pharmacy, food processing industry, microelectronics.

Nanoclass Square Pro Membrane KE

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop	Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m³/h	Pa	EN 1822	mm	m³/h	Pa
H14	305 x 305 x 109	150	55	H14	610 x 762 x 109	750	55
H14	305 x 610 x 109	300	55	H14	610 x 915 x 109	900	55
H14	305 x 762 x 109	375	55	H14	610 x 1220 x 109	1200	55
H14	305 x 915 x 109	450	55	H14	762 x 915 x 109	1130	55
H14	457 x 457 x 109	350	55	H14	762 x 1220 x 109	1500	55
H14	457 x 610 x 109	450	55	H14	1220 x 1220 x 109	2400	55
H14	610 x 610 x 109	600	55	H14	1220 x 1220 x 109	2400	55

SPECIFICATION

Recommended air flow	Flow rate \pm 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Up to 70 °C (Peak 90 °C)	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Gasket	Continuous polyurethane foam or flat neoprene
Grid	1 or 2 sides

Nanoclass Square Pro Flange HT

Product Range



Features



Applications



Filter Class

E



KEY FACTS

- Operating temperature up to 120°C
- Microglass fiber with no risk of shedding
- Large filter surface area for high dust holding capacity
- Extremely high burst pressure
- Compact installation depth of only 88 mm

DESIGN

Microglass fiber media, pleated with cotton thread separators and held in a rigid, galvanized steel frame.

APPLICATIONS

Ideal for use as a final filter in applications that require a high degree of safety.

Nanoclass Square Pro Flange HT

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
E11	287 x 592 x 88	1000	190
E11	592 x 592 x 88	2000	190
E12	287 x 592 x 88	500	190
E12	592 x 592 x 88	1000	190

SPECIFICATION

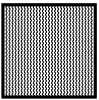
Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa (max. 800 Pa)
Heat resistance	Max. 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Grid	Galvanized steel, one or two-sided
Gasket	Silicon gasket, 1 or 2 sides

Nanoclass Deeppleat Select

Product Range



Select

Features



Applications



Filter Class

E

H



KEY FACTS

- Available in a variety of frame materials
- Extremely long service life
- Suitable for heavy-duty operation
- Robust pleating technology
- Optional handle available

DESIGN

Ultra-fine glass fiber media with aluminum separators to ensure pleat spacing and stability.

APPLICATIONS

Designed for supply, recirculation and exhaust air, where the highest demands are placed on air purity and filter life. Typical industries include pharmaceutical, food, optics, biotechnology, operating theaters and nuclear.

Nanoclass Deeppleat Select

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m³/h	Pa
E11	305 x 610 x 150	1050	250
E11	457 x 610 x 150	1580	250
E11	610 x 610 x 150	2100	250
H13	305 x 610 x 150	530	250
H13	457 x 610 x 150	800	250
H13	610 x 610 x 150	1050	250
H14	305 x 610 x 150	500	250
H14	457 x 610 x 150	750	250
H14	610 x 610 x 150	1000	250

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m³/h	Pa
E11	305 x 610 x 292	2100	250
E11	457 x 610 x 292	3160	250
E11	610 x 610 x 292	4200	250
H13	305 x 610 x 292	1050	250
H13	457 x 610 x 292	1580	250
H13	610 x 610 x 292	2100	250
H14	305 x 610 x 292	1000	250
H14	457 x 610 x 292	1500	250
H14	610 x 610 x 292	2000	250

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa (max. 800 Pa)
Heat resistance	Max. 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Frame	MDF, or galvanized or stainless steel
Gasket	Flat EPDM, 1 or 2 sides
Grid	Galvanized steel or stainless steel, 1 or 2 sides
Header options	None, 20 mm or 25 mm

Nanoclass Cube N Select

Product Range



Features



Applications



Filter Class



KEY FACTS

- For high flow rates up to 4,000 m³/h
- Compact, space-saving design
- Large active media area
- Rigid and robust

DESIGN

V-shaped pleated cells with hotmelt separators to ensure even spacing of the pleats. Available in various casing materials and with an integrated handle for ease of installation.

APPLICATIONS

EPA and HEPA filters for terminal outlets in ventilation and clean room systems with high air quantities.

Nanoclass Cube N Select

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m³/h	Pa
E11	610 x 610 x 292	3400	190
H13	610 x 610 x 292	4000	250
H14	610 x 610 x 292	3400	250

SPECIFICATION

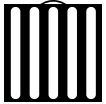
Recommended air flow	Flow rate \pm 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Frame	Galvanized steel, stainless steel
Gasket	PU foam (standard), CR flat (optional)
Dimensions (mm)	305 x 610; 290 x 595; 595 x 595; 610 x 610; 610 x 762

Nanoclass Cube N Eco

Product Range



Features



Applications



Filter Class



KEY FACTS

- For high flow rates up to 4,000 m³/h
- Compact, space-saving design
- Large active media area
- Rigid and robust

DESIGN

V-shaped pleated cells with special thread separators to ensure even spacing of the pleats. Available in various casing materials and with an integrated handle for ease of installation.

APPLICATIONS

EPA and HEPA filters for terminal outlets in ventilation and clean room systems with high air quantities.

Nanoclass Cube N Eco

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m³/h	Pa
E11	610 x 610 x 292	3400	190
H13	610 x 610 x 292	4000	250
H14	610 x 610 x 292	3400	250

SPECIFICATION

Recommended air flow	Flow rate \pm 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Max. 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Frame	Galvanized steel, stainless steel
Gasket	EPDM flat gasket
Dimensions (mm)	305 x 610; 290 x 595; 595 x 595; 610 x 610; 610 x 762

Nanoclass Cube N Pro HT

Product Range



Features



Applications



Filter Class



KEY FACTS

- For high flow rates up to 3,400 m³/h
- High temperature resistance up to 220 °C
- Compact, space-saving design
- Large active media area
- Rigid and robust

DESIGN

V-shaped pleated cells with silicon-coated thread separators to ensure the even spacing of the pleats. Sealed with silicon in a stainless steel case. Integrated handle for ease of installation.

APPLICATIONS

HEPA filters for terminal outlets in ventilation and clean room systems with high air quantities.

Nanoclass Cube N Pro HT

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H13	610 x 610 x 292	3400	270

SPECIFICATION

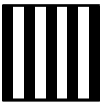
Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa (max. 600 Pa)
Heat resistance	Max. 220 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Gasket	Silicon gasket, 1 or 2 sides
---------------	------------------------------

Nanoclass Cube Pro

Product Range



Features



Applications



Filter Class



KEY FACTS

- Fits all commonly used filter frames
- Industry-leading burst resistance
- Fully incinerable
- Recyclable materials for simple, environmentally friendly disposal
- High efficiencies at low pressure drops

DESIGN

Pleated filter cells with hotmelt or special thread separators to ensure the even spacing of the pleats. Robust, hollow-profile plastic frame made from fully incinerable and recyclable materials. Foamed one-piece PU-gasket can be applied on 1 or 2 sides.

APPLICATIONS

Fine dust filter for pre or main filtration for various cleanroom systems.

Nanoclass Cube Pro

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
E10	592 x 287 x 300	2150	140
E10	592 x 490 x 300	2800	140
E10	592 x 592 x 300	3400	140
E11	592 x 287 x 300	1800	160
E11	592 x 490 x 300	2800	160
E11	592 x 592 x 300	3400	160
E12	592 x 287 x 300	1800	290
E12	592 x 490 x 300	2800	290
E12	592 x 592 x 300	3400	290
H13	592 x 287 x 300	1125	250
H13	592 x 490 x 300	2060	250
H13	592 x 592 x 300	2500	250

SPECIFICATION

Recommended air flow	Flow rate \pm 20 %	Recommended final pressure drop	450 Pa (max. 800 Pa)
Heat resistance	Max. 80 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Gasket	Continuous polyurethane foam, 1 or 2 sides
---------------	--

Nanoclass Cube Pro HT

Product Range



Features



Applications



Filter Class

E



KEY FACTS

- High temperature 120 °C
- Air flow rates up to 5000 m³/h
- Integrated temperature indicator reduces risk of filter failure
- High efficiency
- Low pressure drop
- Stable construction and low weight
- Top cost-benefit ratio

DESIGN

Compact filter with a four-V design made of a high temperature resistant plastic for a lightweight, stable construction. In-built temperature monitor indicates periods of high temperature for greater filter safety and improved process control.

APPLICATIONS

Fine dust filter for pre or main filtration for various cleanroom systems.

Nanoclass Cube Pro HT

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
E10	592 x 592 x 292	3400	140
E10	592 x 490 x 292	2800	140
E10	592 x 287 x 292	1700	140
E11	592 x 592 x 292	3400	160
E11	592 x 490 x 292	2800	160
E11	592 x 287 x 292	1700	160

SPECIFICATION

Recommended air flow	Flow rate \pm 20 %	Recommended final pressure drop	450 Pa (max. 800 Pa)
Heat resistance	Max. 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Gasket	EPDM flat or silicon gasket, 1 or 2 sides
---------------	---

Nanoclass Cube 3V Pro Membrane

Product Range



Features



Applications



Filter Class

H



KEY FACTS

- Reliable virus protection for conventional HVAC systems
- Robust, moisture-resistant media
- Available in standard dimensions according to EN 15805 for installation in almost any system
- Reduced operating noise
- Filter series tested E according to EN 13501-1:2010

DESIGN

Compact filter in a 3V design with a plastic frame and flow-optimized profiles. Lightweight stable construction. Pleat pack made from an ePTFE membrane filter media with hotmelt bead spacing.

APPLICATIONS

Reliable virus protection as a final stage filter for HVAC systems.

Nanoclass Cube 3V Pro Membrane

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m³/h	Pa
H13	592 x 592 x 292	3400	225
H13	592 x 490 x 292	2800	225
H13	592 x 287 x 292	1700	225

SPECIFICATION

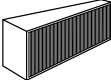
Recommended air flow	3400 m ³ /h	Recommended final pressure drop	Initial pressure drop x 2
Heat resistance	Max. 70°C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes
Fire Classification	E according to EN 13501-1:2010		

OPTIONS

Header depth	25 mm
Gasket	Continuous polyurethane foam, 1 or 2 sides
Frame material	Plastic

Nanoclass Wedge Tapered filter cells

Product Range



Features



Applications



Filter Class



KEY FACTS

- Top cost-benefit ratio
- Low pressure drop
- Stable construction and lightweight

DESIGN

V-shaped pleated cell with hotmelt or thread separators to ensure even spacing of the pleats. Available in galvanized or stainless steel casing.

APPLICATIONS

Final filtration in various HVAC systems.

Nanoclass Wedge Tapered filter cells

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
E11	65 x 202 x 600	200	180
E11	86 x 202 x 600	200	180
H13	65 x 202 x 600	200	205
H13	86 x 202 x 600	200	205

SPECIFICATION

Recommended air flow	Flow rate ± 20 %	Recommended final pressure drop	450 Pa
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No

OPTIONS

Frame	Galvanized or stainless steel
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Nanoclass Tube Pro

Product Range



Features



Applications



Filter Class

H



KEY FACTS

- Compact, space-saving designs
- Low pressure drop
- Available in a wide variety of sizes and casing types
- Large filter area
- Individually tested and leak-free
- Corrosion resistant

DESIGN

Micro-glass filter media enclosed within an aluminum protection grid, attached to a ring and base made of Resocel.

APPLICATIONS

Filtration of bacteria, viruses or general contaminants suspended in air, compressed air or gases.

Nanoclass Tube Pro

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
EN 1822	mm	m ³ /h	Pa
H13	155 x 50	25	200
H13	155 x 100	55	200
H13	155 x 150	80	200
H13	155 x 200	110	200
H13	200 x 50	40	200
H13	200 x 100	70	200
H13	200 x 150	115	200
H13	200 x 200	150	200
H13	200 x 300	200	200
H13	200 x 400	250	200

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	1000 Pa
Heat resistance	Max. 90 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

OPTIONS

Frame	Galvanized or stainless steel
--------------	-------------------------------

Nanoclass Tube Pro JG

Product Range



Features



Applications



Filter Class

H



KEY FACTS

- Compact space-saving designs
- Low pressure drop
- Large filter medium area of 0.3 m²
- Individually tested and leak free
- No separate housing required
- Connectable to standard pipes and tanks with 1"-thread connections

DESIGN

High efficiency, microglass media protected by a stable, corrosion resistant, stainless-steel housing.

APPLICATIONS

Designed to filter particles such as bacteria, viruses or general contaminants suspended in air, compressed air or gases. Ideal for controlled air exchange for pipes and tanks.

Nanoclass Tube Pro JG

PERFORMANCE DATA

Description	Filter Class	Dimensions	Flow Rate	Pressure Drop
	EN 1822	mm	m³/h	Pa
JG without protective cover	H13	Ø 97.5 x 140	22	230
JG with protective cover	H13	Ø 97.5 x 145	22	230
JG with casing	H13	Ø 97.5 x 202	22	280

SPECIFICATION

Recommended air flow	22 m ³ /h	Recommended final pressure drop	Initial pressure x 2 (max. 500 Pa)
Heat resistance	Max. 120 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No
Fire classification	E d0 according to EN 13501-1:2010		



Molecular Filters

Used to separate: Gases including volatile organic compounds, odors, and nitrous oxides.

Gas adsorption and chemisorption filters typically use a range of activated carbon, impregnated media, chemical catalysts and oxidizers to remove harmful gaseous pollutants from an air flow. In doing so, these filters eliminate smells, odors and toxic air pollution, prevent corrosion and protect valuable products, processes or artefacts. Molecular filters also protect humans and animals from sick building syndrome – as documented by the World Health Organization.

MANN+HUMMEL's molecular filter product range features a large variety of specialist physical and chemical activity options, and also standard, plug n' play formats – including combined particle and molecular filters that fit in any standard HVAC housing.

If you have a high flow rate, non-standard application that requires a special molecular filtration stage, please contact your local MANN+HUMMEL representative and we will be glad to help you.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
Molecular Filters	142																							
Carboactiv Fill	144								•	•				•										
Carboactiv Panel	146								•	•				•										
Carboactiv Tube	148								•	•				•										
Carboactiv Pocket Duosorb Select	152				•				•	•				•										
Carboactiv Pocket Duosorb Eco	154		•						•	•				•										
Carboactiv Cube N	156								•	•				•										
Carboactiv Cube	158								•	•	•			•										
Carboactiv Cube Duosorb	160			•					•	•				•										
Carboactiv Coupon	162								•	•	•			•										

Double the performance. Carboactiv Cube Duosorb provides particle filtration and gas adsorption in one filter element – saving you time, space and money.

Carboactiv Fill

Granulated carbon

Product Range



Features



Applications



KEY FACTS

- Pelletized molecular filtration media
- Various options designed to target specific contaminants
- Effective adsorption and chemical conversion of gaseous molecular air contaminants, solvents, chemicals and biological odors
- Ideal for use in refillable deep-bed gas adsorption and chemisorption installations

DESIGN

Gas-phase filtration media formed into pellets.

APPLICATIONS

Suitable for use in HVAC systems and industrial process exhaust treatment units (deep bed scrubbers) to solve a wide range of issues relating to molecular contamination. Each standard product has been specifically designed to address issues (e.g. toxic fumes, air pollution, odors, corrosion) caused by individual contaminants.

SPECIFICATION

Heat resistance	< 50 °C (Peak 60 °C)	Moisture resistance	< 60 % (Max. < 90 %)
Regenerable	No	Incinerable	Yes*

* Please ensure accordance with relevant disposal directives

Carboactiv Fill

Granulated carbon

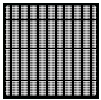
PERFORMANCE DATA

Type	Packaging	ISO EN 10121:2014 Max. Sorptive Capacity (g Gas/kg Media)			Max. Sorptive Capacity (g Gas/kg Media)				Recommended Contaminants
		SO ₂	NH ₃	Toluene	H ₂ S	VOC/ Condens.	Dopants (B, P, As)	Chlorine (Cl ₂)	
Carb	25 kg sack	<20	<5	<250	<20	<250	<20	<20	Light to medium pollution of large molecular VOC, solvents, fragrances, kitchen exhaust, lab fumes, building recirculation air, etc
	12" cassette refill	<20	<5	<250	<20	<250	<20	<20	
	1 m ³ big bag	<20	<5	<250	<20	<250	<20	<20	
Alkali / KI-KOH	25 kg sack	<250	<5	<150	<250	<150	<100	<150	Light to medium levels of VOC, solvents, organic and inorganic acids, SO ₂ , NO ₂ , low-level H ₂ S, fragrances, kitchen and lab fumes, etc
	12" cassette refill	<250	<5	<150	<250	<150	<100	<150	
	1 m ³ big bag	<250	<5	<150	<250	<150	<100	<150	
Acidic	25 kg sack	<20	<150	<200	<20	<200	<20	N/A	Light to medium levels of ammonia, organic alkylamines, cyclic and aromatic amines, etc
	12" cassette refill	<20	<150	<200	<20	<200	<20	N/A	
	1 m ³ big bag	<20	<150	<200	<20	<200	<20	N/A	
Pro acidic	25 kg sack	<20	<250	<150	<20	<150	<20	N/A	Medium levels of ammonia, organic alkylamines, cyclic and aromatic amines, etc
	12" cassette refill	<20	<250	<150	<20	<150	<20	N/A	
	1 m ³ big bag	<20	<250	<150	<20	<150	<20	N/A	
Carboxy blend	25 kg sack	<50	<5	<150	<150	<150	<100	<60	Light to medium levels of VOC, solvents, formaldehyde, organic and inorganic acids, SO ₂ , NO ₂ , kitchen and lab fumes, etc
	12" cassette refill	<50	<5	<150	<150	<150	<100	<60	
	1 m ³ big bag	<50	<5	<150	<150	<150	<100	<60	
Oxy 10%	25 kg sack	<150	<5	<10	<300	<10	<200	<20	Medium levels of formaldehyde, alcohols, ketones, organic acids, SO ₂ , mid-level H ₂ S, mercaptans and other sulfuric compounds
	12" cassette refill	<150	<5	<10	<300	<10	<200	<20	
	1 m ³ big bag	<150	<5	<10	<300	<10	<200	<20	
Oxy 8%	25 kg sack	<100	<5	<10	<250	<10	<160	<20	Light to medium levels of formaldehyde, alcohols, ketones, organic acids, SO ₂ , mid-level H ₂ S, mercaptans and other sulfuric compounds
	12" cassette refill	<100	<5	<10	<250	<10	<160	<20	
	1 m ³ big bag	<100	<5	<10	<250	<10	<160	<20	
Sulf chlorine scrub	25 kg sack	<100	<5	<10	<250	<10	<160	<200	Light to medium levels of organic and inorganic acids, chlorine, SO ₂ , NO ₂ , low-level H ₂ S, lab fumes, building recirculation air and similar
	12" cassette refill	<100	<5	<10	<250	<10	<160	<200	
	1 m ³ big bag	<100	<5	<10	<250	<10	<160	<200	

Carboactiv Panel

Activated Carbon Filter

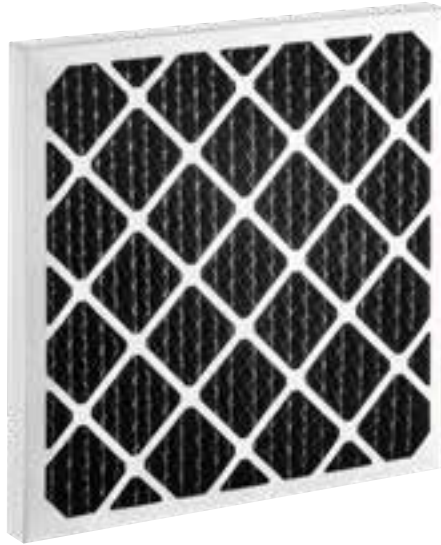
Product Range



Features



Applications



KEY FACTS

- Compact design
- High level of carbon content
- Specially-finished support grid prevents oxidization
- High quality, water-resistant frame
- Simple installation and handling

DESIGN

Pleated synthetic media coated with activated carbon, which is laminated onto a diamond grid. Also features a special finish to prevent oxidization and a high quality frame that's resistant to water.

APPLICATIONS

Prefiltration for air conditioning and ventilation equipment or systems where odour and fume adsorption is required.

Carboactiv Panel Activated Carbon Filter

PERFORMANCE DATA

Dimensions	Flow Rate	Pressure Drop
mm	m ³ /h	Pa
287 x 596 x 47	1700	80
496 x 596 x 47	2800	80
596 x 596 x 47	3400	80

Carboactiv Tube

Activated carbon cylinder

Product Range



Features



Applications



KEY FACTS

- Extremely high capacity
- Removes odours and captures harmful gases
- Refillable (metal versions only)
- Simple "plug-and-play" installation system

DESIGN

Galvanized steel, stainless steel and plastic cartridges, which can be filled with a wide variety of activated carbon and mediums.

APPLICATIONS

Suitable for installation in HVAC and industrial process systems to solve a wide range of molecular contamination issues. Each standard products has been designed to target issues caused by specific contaminants.

Carboactiv Tube

Activated carbon cylinder

PERFORMANCE DATA

Type	Frame	Dimensions (mm)	ISO EN 10121:2014 Max. Sorptive Capacity (g Gas/kg Media)			Max. Sorptive Capacity (g Gas/kg Media)				Recommended Contaminants
			SO ₂	NH ₃	Toluene	H ₂ S	VOC/ Condens.	Dopants (B, P, As)	Chlorine (Cl ₂)	
Carb	Plastic	145 x 450	<20	<5	<250	<20	<250	<20	<20	Light to medium air pollution of large molecular VOC, solvents, fragrances, kitchen exhaust, lab fumes, building recirculation air and similar
		145 x 600	<20	<5	<250	<20	<250	<20	<20	
	Galv. Steel	145 x 450	<20	<5	<250	<20	<250	<20	<20	
		145 x 600	<20	<5	<250	<20	<250	<20	<20	
	Stain. Steel	145 x 450	<20	<5	<250	<20	<250	<20	<20	
		145 x 600	<20	<5	<250	<20	<250	<20	<20	
Alkali / KI-KOH	Plastic	145 x 450	<250	<5	<150	<250	<150	<100	<150	Light to medium air pollution of VOC, Solvents, Organic and Inorganic Acids (HF, HCl, HBr, HNO ₃ , H ₂ SO ₄ , HCN, etc.), SO ₂ , NO ₂ , low-level H ₂ S, fragrances, kitchen exhaust, lab fumes, building recirculation air and similar
		145 x 600	<250	<5	<150	<250	<150	<100	<150	
	Galv. Steel	145 x 450	<250	<5	<150	<250	<150	<100	<150	
		145 x 600	<250	<5	<150	<250	<150	<100	<150	
	Stain. Steel	145 x 450	<250	<5	<150	<250	<150	<100	<150	
		145 x 600	<250	<5	<150	<250	<150	<100	<150	
Acidic	Plastic	145 x 450	<20	<150	<200	<20	<200	<20	N/A	Light to medium air pollution of ammonia (NH ₃) organic alkylamines (primary, secondary, tertiary), cyclic and aromatic amines (aniline, phenylenediamine, pyrrolidine, etc.) and similar
		145 x 600	<20	<150	<200	<20	<200	<20	N/A	
	Galv. Steel	145 x 450	<20	<150	<200	<20	<200	<20	N/A	
		145 x 600	<20	<150	<200	<20	<200	<20	N/A	
	Stain. Steel	145 x 450	<20	<150	<200	<20	<200	<20	N/A	
		145 x 600	<20	<150	<200	<20	<200	<20	N/A	

Carboactiv Tube

Activated carbon cylinder

PERFORMANCE DATA (CONTINUED)

Type	Frame	Dimensions (mm)	ISO EN 10121:2014 Max. Sorptive Capacity (g Gas/kg Media)			Max. Sorptive Capacity (g Gas/kg Media)				Recommended Contaminants
			SO ₂	NH ₃	Toluene	H ₂ S	VOC/ Condens.	Dopants (B, P, As)	Chlorine (Cl ₂)	
Pro Acidic	Plastic	145 x 450	<20	<250	<150	<20	<150	<20	N/A	Medium air pollution of ammonia (NH ₃) organic alkylamines (primary, secondary, tertiary), cyclic and aromatic amines (aniline, phenylenediamine, pyrrolidine, etc.) and similar
		145 x 600	<20	<250	<150	<20	<150	<20	N/A	
	Galv. Steel	145 x 450	<20	<250	<150	<20	<150	<20	N/A	
		145 x 600	<20	<250	<150	<20	<150	<20	N/A	
	Stain. Steel	145 x 450	<20	<250	<150	<20	<150	<20	N/A	
		145 x 600	<20	<250	<150	<20	<150	<20	N/A	
Carboxy Blend	Plastic	145 x 450	<50	<5	<150	<150	<150	<100	<60	Light to medium air pollution of VOC, solvents, formaldehyde, organic and inorganic acids (HF, HCl, HBr, HNO ₃ , H ₂ SO ₄ , HCN, etc.), SO ₂ , NO ₂ , mid-level H ₂ S, fragrances, kitchen exhaust, lab fumes, building recirculation air and similar
		145 x 600	<50	<5	<150	<150	<150	<100	<60	
	Galv. Steel	145 x 450	<50	<5	<150	<150	<150	<100	<60	
		145 x 600	<50	<5	<150	<150	<150	<100	<60	
	Stain. Steel	145 x 450	<50	<5	<150	<150	<150	<100	<60	
		145 x 600	<50	<5	<150	<150	<150	<100	<60	
Oxy 10%	Plastic	145 x 450	<150	<5	<10	<300	<10	<200	<20	Medium air pollution of formaldehyde, alcohols, ketones, organic acids, SO ₂ , mid-level H ₂ S, mercaptans and other sulfuric compounds and similar
		145 x 600	<150	<5	<10	<300	<10	<200	<20	
	Galv. Steel	145 x 450	<150	<5	<10	<300	<10	<200	<20	
		145 x 600	<150	<5	<10	<300	<10	<200	<20	
	Stain. Steel	145 x 450	<150	<5	<10	<300	<10	<200	<20	
		145 x 600	<150	<5	<10	<300	<10	<200	<20	
Oxy 8%	Plastic	145 x 450	<100	<5	<10	<250	<10	<160	<20	Light to medium air pollution of formaldehyde, alcohols, ketones, organic acids, SO ₂ , mid-level H ₂ S, mercaptans and other sulfuric compounds and similar
		145 x 600	<100	<5	<10	<250	<10	<160	<20	
	Galv. Steel	145 x 450	<100	<5	<10	<250	<10	<160	<20	
		145 x 600	<100	<5	<10	<250	<10	<160	<20	
	Stain. Steel	145 x 450	<100	<5	<10	<250	<10	<160	<20	
		145 x 600	<100	<5	<10	<250	<10	<160	<20	
Sulf Chlorine Scrub	Plastic	145 x 450	<100	<5	<10	<250	<10	<160	<200	Light to medium air pollution of organic and inorganic acids (HF, HCl, HBr, HNO ₃ , H ₂ SO ₄ , HCN, etc.), chlorine, SO ₂ , NO ₂ , low-level H ₂ S, including lab fumes, building recirculation air and similar
		145 x 600	<100	<5	<10	<250	<10	<160	<200	
	Galv. Steel	145 x 450	<100	<5	<10	<250	<10	<160	<200	
		145 x 600	<100	<5	<10	<250	<10	<160	<200	
	Stain. Steel	145 x 450	<100	<5	<10	<250	<10	<160	<200	
		145 x 600	<100	<5	<10	<250	<10	<160	<200	

Carboactiv Tube

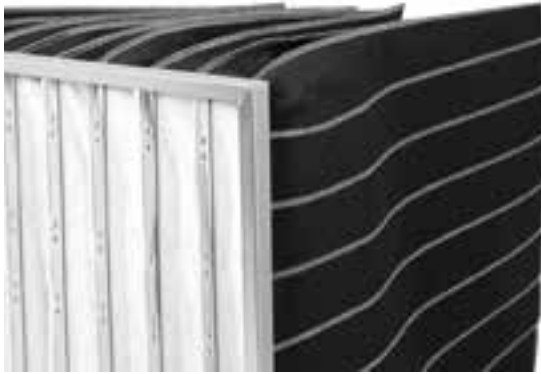
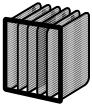
Activated carbon cylinder

INSTALLATION FRAMES

Dimensions (mm)	Frame Material	Number of Cartridges
305 x 305 x 70	Galvanized steel	4
305 x 610 x 70	Galvanized steel	8
508 x 610 x 70	Galvanized steel	12
610 x 610 x 70	Galvanized steel	16
305 x 305 x 70	Stainless steel 304	4
305 x 610 x 70	Stainless steel 304	8
508 x 610 x 70	Stainless steel 304	12
610 x 610 x 70	Stainless steel 304	16

Carboactiv Pocket Duosorb Select

Product Range



Features



Applications



Filter Class

F

ePM1

KEY FACTS

- Particle filtration and gas adsorption in one filter element
- Improvement of indoor air quality
- Ideal for eliminating odors
- Low pressure drop

DESIGN

Multi-layered media, tailored-sewn into pockets with sealed, conical spacer seams for an optimal V-shape. A galvanized steel frame provides rigidity.

APPLICATIONS

For use in public buildings or other places where people gather to improve indoor air quality and protect against sick building syndrome.

Carboactiv Pocket Duosorb Select

PERFORMANCE DATA

Filter Class		Dimensions	Pockets	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm		m ³ /h	Pa
ePM1 60%	F7	287 x 592 x 600	4	1650	140
ePM1 60%	F7	287 x 592 x 600	5	1650	140
ePM1 60%	F7	287 x 892 x 600	4	2475	140
ePM1 60%	F7	287 x 892 x 600	5	2475	140
ePM1 60%	F7	490 x 592 x 600	6	2825	140
ePM1 60%	F7	490 x 592 x 600	8	2825	140
ePM1 60%	F7	592 x 287 x 600	8	1650	140
ePM1 60%	F7	592 x 287 x 600	10	1650	140
ePM1 60%	F7	592 x 490 x 600	8	2825	140
ePM1 60%	F7	592 x 490 x 600	10	2825	140
ePM1 60%	F7	592 x 592 x 600	8	3400	140
ePM1 60%	F7	592 x 592 x 600	10	3400	140
ePM1 60%	F7	592 x 892 x 600	8	5125	140
ePM1 60%	F7	592 x 892 x 600	10	5100	140

SPECIFICATION

Heat resistance	< 30 °C (Peak 50 °C)	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Regenerable	No	Moisture resistance	< 60 % (Max. < 90 %)
Incinerable	No		

OPTIONS

Gasket	Flat gasket, 1 or 2 sides
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Carboactiv Pocket Duosorb Eco

Product Range



Features



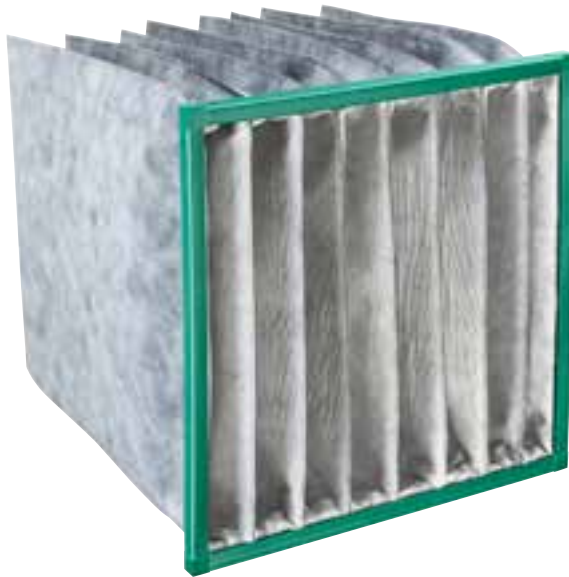
Applications



Filter Class

M

ePM10



KEY FACTS

- Particle filtration and gas adsorption in one filter element
- Improvement of indoor air quality
- Ideal for eliminating odors
- Low pressure drop

DESIGN

Multi-layered synthetic and carbon media sewn together to form pockets and assembled in a robust frame.

APPLICATIONS

For use in public buildings or other places where people gather to improve indoor air quality and protect against sick building syndrome.

Carboactiv Pocket Duosorb Eco

PERFORMANCE DATA

Filter Class		Dimensions	Pockets	Flow Rate	Pressure Drop
ISO 16890	EN 779	mm		m³/h	Pa
ePM10 75%	M6	592 x 592 x 635	8	3400	70

SPECIFICATION

Heat resistance	< 30 °C (Peak 50 °C)	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Regenerable	No	Moisture resistance	< 60 % (Max. < 90 %)
Incinerable	No		

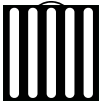
OPTIONS

Gasket	Flat gasket, 1 or 2 sides
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Carboactiv Cube

N

Product Range



Features



Applications



KEY FACTS

- Compact filter with airborne molecular contamination (AMC) filtration media
- Removes odours, solvents, condensables, airborne chemicals, molecular acids and captures harmful gases
- Rugged construction and build provides high structural stability
- No exhaust-carbon dust load, minimizes the need for an additional safety, post-AMC fine filter
- Microgranulated carbon and impregnated media delivers high spontaneity of adsorption/reaction

DESIGN

V-shaped, pleated activated carbon cells, made of composite material of fine-grain absorbents embedded into a synthetic textile matrix. Available in various casing materials. Integrated handle for ease of installation.

APPLICATIONS

For installation in HVAC systems to solve a wide range of issues relating to gaseous molecular contamination. Each standard product has been specifically designed to address issues (e.g. toxic fumes, air pollution, odors, corrosion) caused by specific contaminants.

Carboactiv Cube

N

PERFORMANCE DATA

Type	Dimensions (mm)	Flow Rate (m ³ /h)	Initial Pressure Drop (Pa)	ISO EN 10121:2014 Max. Sorptive Capacity (g Gas/kg Media)			Max. Sorptive Capacity (g Gas/kg Media)			Recommended Contaminants
				SO ₂	NH ₃	Toluene	H ₂ S	VOC/Conden.	Dopants (B, P, As)	
Carb	610 x 610 x 292	3400	90	<20	<5	<300	<20	<300	<20	Light to medium pollution of VOC, solvents, fragrances, kitchen exhaust, lab fumes, building recirculation air, etc
	305 x 610 x 292	1700	90	<20	<5	<300	<20	<300	<20	
Alkaline	610 x 610 x 292	3400	90	<200	<5	<200	<200	<200	<50	Light to medium levels of organic and inorganic acids (HF, HCl, HBr, HNO ₃ , H ₂ SO ₄ , HCN, etc.), SO ₂ , NO ₂ , low-level H ₂ S, etc
	305 x 610 x 292	1700	90	<200	<5	<200	<200	<200	<50	
Acidic	610 x 610 x 292	3400	90	<5	<180	<200	<5	<180	<50	Light to medium pollution of ammonia organic alkylamines cyclic and aromatic amines (aniline, phenylenediamine, pyrrolidine, etc.) and similar
	305 x 610 x 292	1700	90	<5	<180	<200	<5	<180	<50	
Sulfuric	610 x 610 x 292	3400	90	<100	<5	<150	<300	<150	<50	Light to medium levels of VOC, solvents, organic and inorganic acids, SO ₂ , NO ₂ , low-level H ₂ S, ammonia, organic alkylamines, cyclic and aromatic amines, etc
	305 x 610 x 292	1700	90	<100	<5	<150	<300	<150	<50	
VOC-Amine-Acid	610 x 610 x 292	3400	90	<200	<300	<250	<50	<250	<150	Light to medium levels of VOC, solvents, formaldehyde, organic and inorganic acids, SO ₂ , NO ₂ , mid-level H ₂ S, ammonia, organic alkylamines, cyclic and aromatic amines, etc
	305 x 610 x 292	1700	90	<200	<300	<250	<50	<250	<150	
Sulf-Amine-Acid	610 x 610 x 292	3400	90	<200	<300	<150	<300	<150	<250	Light to medium levels of VOC, solvents, formaldehyde, organic and inorganic acids, SO ₂ , NO ₂ , mid-level H ₂ S, ammonia, organic alkylamines, cyclic and aromatic amines, etc
	305 x 610 x 292	1700	90	<200	<300	<150	<300	<150	<250	

SPECIFICATION

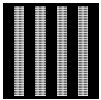
Heat resistance	< 50 °C (Peak 60 °C)	Moisture resistance	< 60 % (Max. < 90 %)
Regenerable	No	Incinerable	No

OPTIONS

Gasket	One piece, flat EPDM gasket
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Carboactiv Cube 4V compact filter

Product Range



Features



Applications



Filter Class

ePM1



KEY FACTS

- Compact filter with molecular-filtration media
- Removes odors and captures harmful gases
- High structural stability
- Stackable frame system to reduce space
- Microgranulated carbon for high spontaneity of adsorption/reaction

DESIGN

Filter elements sealed into a 4-V plastic frame with polyurethane for an extremely robust construction. Pleat packs consist of carbon and chemical absorbants sealed into a synthetic media.

APPLICATIONS

Suitable for installation in HVAC systems to solve a wide range of molecular contamination issues. Each standard product has been designed to target issues caused by specific contaminants.

Carboactiv Cube

4V compact filter

PERFORMANCE DATA

Type	Dimensions W x H (mm)	ISO EN 10121:2014 Max. Sorptive Capacity (g Gas/kg Media)			Max. Sorptive Capacity (g Gas/kg Media)			Recommended Contaminants
		SO ₂	NH ₃	Toluene	H ₂ S	VOC/ Condens.	Dopants (B, P, As)	
Carb	592 x 592	<20	<5	<300	<20	<300	<20	VOC, solvents, fragrances, kitchen exhaust, lab fumes, building recirculation air
	592 x 490	<20	<5	<300	<20	<300	<20	
	592 x 287	<20	<5	<300	<20	<300	<20	
Alkaline	592 x 592	<200	<5	<200	<200	<200	<50	Organic and inorganic acids (HF, HCl, HBr, HNO ₃ , H ₂ SO ₄ , HCN, etc.), SO ₂ , NO ₂ , low-level H ₂ S
	592 x 490	<200	<5	<200	<200	<200	<50	
	592 x 287	<200	<5	<200	<200	<200	<50	
Acidic	592 x 592	<5	<180	<200	<5	<180	<50	Ammonia (NH ₃) organic alkylamines (primary, secondary, tertiary), cyclic and aromatic amines (aniline, phenylenediamine, pyrrolidine, etc.)
	592 x 490	<5	<180	<200	<5	<180	<50	
	592 x 287	<5	<180	<200	<5	<180	<50	
Sulfuric	592 x 592	<100	<5	<150	<300	<150	<50	Ammonia (NH ₃) organic alkylamines (primary, secondary, tertiary), cyclic and aromatic amines (aniline, phenylenediamine, pyrrolidine, etc.)
	592 x 490	<100	<5	<150	<300	<150	<50	
	592 x 287	<100	<5	<150	<300	<150	<50	
VOC- Amine- Acid	592 x 592	<200	<300	<250	<50	<250	<150	VOC, solvents, organic and inorganic acids (HF, HCl, HBr, HNO ₃ , H ₂ SO ₄ , HCN, etc.), SO ₂ , NO ₂ , low-level H ₂ S, ammonia (NH ₃) organic alkylamines, cyclic and aromatic amines (aniline, phenylenediamine, pyrrolidine, etc.)
	592 x 490	<200	<300	<250	<50	<250	<150	
	592 x 287	<200	<300	<250	<50	<250	<150	
Sulf- Amine- Acid	592 x 592	<200	<300	<150	<300	<150	<250	VOC, solvents, formaldehyde, organic and inorganic acids (HF, HCl, HBr, HNO ₃ , H ₂ SO ₄ , HCN, etc.), SO ₂ , NO ₂ , mid-level H ₂ S, ammonia (NH ₃) organic alkylamines, cyclic and aromatic amines (aniline, phenylenediamine, pyrrolidine)
	592 x 490	<200	<300	<150	<300	<150	<250	
	592 x 287	<200	<300	<150	<300	<150	<250	

SPECIFICATION

Heat resistance	< 30 °C (Peak 50 °C)	Moisture resistance	< 60 % (Max. < 90 %)
Regenerable	No	Incinerable	Yes*
Depth	292 mm	Air flow/pressure drop	0.94 m/s @ 90 Pa

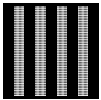
* Please ensure accordance with relevant disposal directives

OPTIONS

Gasket	Continuous polyurethane, 1 or 2 sides
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Carboactiv Cube Duosorb

Product Range



Features



Applications



Filter Class

ePM2.5



KEY FACTS

- Particle filtration and gas adsorption in one filter element
- Top cost-benefit ratio
- Low pressure drop
- Stable construction
- Lightweight

DESIGN

Filter elements are sealed into a 4V plastic frame with polyurethane for an extremely robust construction. The pleat packs are made of a composite material based on fine-grain absorbents embedded into a synthetic textile matrix. The frame features an integrated handle for ease of transportation.

APPLICATIONS

Improvement of indoor air quality, particularly in locations with problem odors or gaseous compounds.

Carboactiv Cube Duosorb

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
ISO 16890	mm	m ³ /h	Pa
ePM2.5 60%	592 x 287 x 300	1700	125
ePM2.5 60%	592 x 490 x 300	2800	125
ePM2.5 60%	592 x 592 x 300	3400	125

SPECIFICATION

Heat resistance	< 30 °C (Peak 50 °C)	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Regenerable	No	Moisture resistance	< 60 % (Max. < 90 %)
Adsorption capacity	950 g	Incinerable	No

OPTIONS

Gasket	Continuous polyurethane, 1 or 2 sides
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Carboactiv Coupon Corrosion Coupons

Features



Applications



KEY FACTS

- Copper and silver-based coupons
- Identify and measure sources of corrosion on electrical and electronic components according to ISA71.04
- Provide exact measurement of gaseous components and molecular air contaminants, solvents, chemicals and biological odors
- Help protect expensive equipment from corrosion, and reduce associated downtime and outages

DESIGN

Copper and silver-based corrosion coupons, constructed to meet the requirements of ISA71.04 / ASHRAE TC9.

APPLICATIONS

Suitable for use in HVAC systems and industrial process exhaust treatment units to help tackle a wide range of issues caused by gaseous molecular contamination. Carboactiv Coupon identifies and measures corrosive contaminants in an internal environment, so that the filtration system or other corrective steps can be targeted at those specific contaminants and sources e.g. toxic and corrosive fumes, agriculture, air pollution, traffic, ambient heating and other polluting processes.

Carboactiv Coupon

Corrosion Coupons

PERFORMANCE DATA

Type	Packaging
Description	Quantity
ISA71.04 / ASHRAE TC9.9 Corrosion Coupon	1 PCE



ATEX-Compliant Filters

Used to separate: All types of contaminants in potentially explosive atmospheres.

Equipment used in potentially explosive environments must meet the requirements set out within the ATEX directives to mitigate the risk to workers and the wider environment. Air filters are a key part of this. But as well as creating an environment free from the risk of explosion, air filters must also deliver a safe environment free from contaminants too.

All products in the MANN+HUMMEL Pro ATEX range are designed specifically to be fully compliant with ATEX directive 2014/34/EU. Various designs and filter efficiencies are available, and all products are suitable for all ATEX zones in the atmospheres relevant to each filter type and efficiency.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
ATEX-Compliant Air Filters	164																							
Aircurve Pro ATEX	166	•							•	•		•												
Airpocket Pro ATEX	168			•					•	•		•		•										
Aircube/Nanoclass Cube N Pro ATEX	170				•	•	•		•	•		•					•	•						
Airsquare/Nanoclass Square Pro ATEX	172				•	•	•		•	•		•					•							

The standout feature of an ATEX-compliant air filter is its ability to dissipate electrostatic charges safely. Our ATEX filters are interlinked, grounded and tested to meet the earthing requirements of the ATEX directives.

Aircurve Pro

ATEX

Product Range



Features

EX

Applications



Filter Class

Coarse



KEY FACTS

- Filter series compliant with the European directive ATEX 2014/34/EU
- Synthetic filter media
- No fiber shedding
- Stable, lightweight design
- High dust holding capacity
- Top cost-benefit ratio
- M1-classed media according to NFP92-507

DESIGN

Open-pleated synthetic filter media installed in a lightweight metal case. Supported by galvanized steel mesh on both sides to provide extra pleat stability.

APPLICATIONS

For special air conditioning and ventilation systems in food, chemical and pharmaceutical industries, where demanding requirements for explosive atmospheres must be met.



The filters used in the application areas are electrically conductive and comply with the European ATEX directive 2014/34/EU for products used in explosive atmospheres.

Aircurve Pro

ATEX

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop
ISO 16890	mm	m³/h	Pa
Coarse 60%	287 x 592 x 48	1700	105
Coarse 60%	490 x 592 x 48	2900	105
Coarse 60%	592 x 592 x 48	3400	105

SPECIFICATION

Recommended air flow	< 3400 m ³ /h	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 50 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Moisture resistance	80 % rel. humidity
Regenerable	No	Flammability	M1 according to NF P92-507

OPTIONS

Frame	Galvanized steel
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ZONE AUTHORIZATION

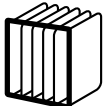
Filters are authorized, depending on their filtration classes, for use in the following zones with the listed flammable substances.

Substance	Zone	Explosion Group
Dust	Zone 20, Zone 21, Zone 22	IIIA - Flammable lints and flocculation IIIB - Isolating, non-conductive dust
Gases	Zone 0, Zone 1, Zone 2	IIA - Diesel, petrol, ethane, etc IIB - Town gas, ethylene, etc

Airpocket Pro

ATEX

Product Range



Features



EX

Applications



Filter Class

ePM1

ePM10

Coarse



KEY FACTS

- Filter series compliant with the European directive ATEX 2014/34/EU
- Particle filtration and gas adsorption in one filter element
- Removes odors and harmful gases

DESIGN

Multi-layered media, tailored-sewn into pockets with sealed, conical spacer seams for an optimal V-shape. A galvanized steel frame provides rigidity.

APPLICATIONS

For special air conditioning and ventilation systems in food, chemical and pharmaceutical industries, where demanding requirements for explosive atmospheres need to be met.



The filters used in the application areas are electrically conductive and comply with the European ATEX directive 2014/34/EU for products used in explosive atmospheres.

OPTIONS

Header depth	25 or 20 mm
Gasket	EPDM flat gasket

SPECIFICATION

Recommended air flow	Flow rate ± 15 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	< 30 °C (Peak 50 °C)	Moisture resistance	< 60 % (max. < 90 %)
Regenerable	No	Incinerable	No

Airpocket Pro

ATEX

PERFORMANCE DATA

Filter Class	Dimensions	Pockets	Flow Rate	Pressure Drop*
ISO 16890	mm		m ³ /h	Pa
Coarse 80%	592 x 592 x 600	6	3400	70
Coarse 80%	490 x 592 x 600	5	2800	70
Coarse 80%	287 x 592 x 600	3	1700	70
Coarse 80%	287 x 287 x 600	3	850	70
ePM10 75%	592 x 592 x 635	8	3400	90
ePM10 75%	490 x 592 x 635	6	2800	90
ePM10 75%	287 x 592 x 635	4	1700	90
ePM10 75%	287 x 287 x 635	4	850	90
ePM1 60%	592 x 592 x 635	8	3400	140
ePM1 60%	490 x 592 x 635	6	2800	140
ePM1 60%	287 x 592 x 635	4	1700	140
ePM1 60%	287 x 287 x 635	4	850	140
ePM1 80%	592 x 592 x 635	8	3400	215
ePM1 80%	490 x 592 x 635	6	2800	215
ePM1 80%	287 x 592 x 635	4	1700	215
ePM1 80%	287 x 287 x 635	4	850	215

* Pressure drop tolerance \pm 10%

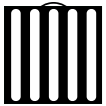
ZONE AUTHORIZATION

Filters are authorized, depending on their filtration classes, for use in the following zones with the listed flammable substances.

Substance	Zone	Explosion Group
Dust	Zone 20, Zone 21, Zone 22	IIIA - Flammable lints and flocculation IIIB - Isolating, non-conductive dust
Gases	Zone 0, Zone 1, Zone 2	IIA - Diesel, petrol, ethane, etc IIB - Town gas, ethylene, etc

Aircube / Nanoclass Cube N Pro ATEX

Product Range



Features



EX

Applications



Filter Class



KEY FACTS

- Suitable for high flow rates up to 4,000 m³/h
- Compact, space-saving design
- Large active media area
- Ideal for robust industrial applications
- High temperature stability up to 120 °C
- Filter series tested according to EN 13501-1:2010 as E d0

DESIGN

V-shaped pleated cells with special thread separators to ensure even spacing of the pleats. Metal casing with an integrated handle for ease of installation.

APPLICATIONS

Fine dust and HEPA filtration for process applications in HVAC and clean room systems with high air flow rates.

OPTIONS

Frame	Galvanized steel, stainless steel
Gasket	EPDM flat gasket 1 or 2 sides; U-profile gasket 1 or 2 sides
Dimensions	305 x 610; 290 x 595; 595 x 595; 610 x 610; 610 x 762 mm



The filters used in the application areas are electrically conductive and comply with the European ATEX directive 2014/34/EU for products used in explosive atmospheres.

Aircube & Nanoclass Cube N Pro ATEX are certified according to EN 13501-1:2010 in flammability class E and droplet formation class d0.

Aircube / Nanoclass Cube N Pro ATEX

PERFORMANCE DATA

	Filter Class		Dimensions	Flow Rate	Pressure Drop**
	ISO 16890	EN 1822	mm	m ³ /h	Pa
Aircube N Pro ATEX	ePM1 55%	-	610 x 610 x 292	4,000	160
Aircube N Pro ATEX	ePM1 80%	-	610 x 610 x 292	4,000	170
Nanoclass Cube N Pro ATEX	-	E11	610 x 610 x 292	3,400	190
Nanoclass Cube N Pro ATEX	-	H13	610 x 610 x 292	4,000	290
Nanoclass Cube N Pro ATEX	-	H14	610 x 610 x 292	3,400	270

* Catalogue items are constructed with stainless steel frames and feature a gasket on the dirty side.

** Pressure drop tolerance \pm 10%

SPECIFICATION

Recommended air flow	Flow rate \pm 10 %	Rec. final pressure for efficient energy use acc. to EN 13053 (Aircube)	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 120 °C	Recommended final pressure drop (Nanoclass Cube)	600 Pa
Regenerable	No	Moisture resistance	100 % rel. humidity
Fire classification	E d0 according EN 13501-1:2010	Incinerable	No

ZONE AUTHORIZATION

Filters are authorized, depending on their filtration classes, for use in the following zones with the listed flammable substances.

Substance	Zone	Explosion Group
Dust	Zone 20, Zone 21, Zone 22	IIIA – Flammable lints and flocculation IIIB – Isolating, non-conductive dust
Gases	Zone 0, Zone 1, Zone 2	IIA – Diesel, petrol, ethane, etc IIB – Town gas, ethylene, etc IIC – Hydrogen, acetylene, etc

Airsquare / Nanoclass Square Pro ATEX

Product Range



Features



EX

Applications



Filter Class



KEY FACTS

- Various dimensions and extrusion types
- High-quality, anodized aluminum frame with stainless steel grid protection
- Filter series tested according to EN 13501-1:2010 as E d0

DESIGN

Pleated cells with state-of-the-art hotmelt spacing technology to ensure even spacing of the pleats. Stainless steel grid protection with dry sealing.

APPLICATIONS

Fine dust and HEPA filtration for process applications in HVAC and clean room systems.

OPTIONS

Extrusions	Various extrusion types available
Gasket	1 or 2 sides



The filters used in the application areas are electrically conductive and comply with the European ATEX directive 2014/34/EU for products used in explosive atmospheres.

Airsquare & Nanoclass Square N Pro ATEX are certified according to EN 13501-1:2010 in flammability class E and droplet formation class d0.

Airsquare / Nanoclass Square Pro ATEX

PERFORMANCE DATA

	Filter Class		Dimensions	Flow Rate	Pressure Drop*
	ISO 16890	EN 1822	mm	m ³ /h	Pa
Airsquare Pro ATEX FC	ePM1 55%	-	610 x 610 x 70	2,000	90
Airsquare Pro ATEX FC	ePM1 80%	-	610 x 610 x 70	2,000	140
Nanoclass Square Pro ATEX FC	-	E11	610 x 610 x 70	600	80
Nanoclass Square Pro ATEX FC	-	H13	610 x 610 x 70	600	95
Nanoclass Square Pro ATEX FC	-	H14	610 x 610 x 70	600	105

* Pressure drop tolerance \pm 10%

SPECIFICATION

Recommended air flow	Flow rate \pm 20 %	Rec. final pressure for efficient energy use acc. to EN 13053 (Airsquare)	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70 °C	Recommended final pressure drop (Nanoclass Square)	600 Pa
Regenerable	No	Moisture resistance	100 % rel. humidity
Fire classification	E d0 according EN 13501-1:2010	Incinerable	No

ZONE AUTHORIZATION

Filters are authorized, depending on their filtration classes, for use in the following zones with the listed flammable substances.

Substance	Zone	Explosion Group
Dust	Zone 20, Zone 21, Zone 22	IIIA – Flammable lints and flocculation IIIB – Isolating, non-conductive dust
Gases	Zone 0, Zone 1, Zone 2	IIA – Diesel, petrol, ethane, etc IIB – Town gas, ethylene, etc IIC – Hydrogen, acetylene, etc



Paint Spray Filters

Used to separate: All types of contaminants, including water, dust, fine particles and paint overspray.

A flawless finish, free from imperfections can only be achieved in an environment that's free from imperfections too. Paint spray filters remove the contaminants that can ruin your work.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
Paint Spray Filters	174																							
Airroll Select Paint Dust	176	•							•						•					•				
Airroll Paintcard PFF	178					•												•						
Airroll Pro Paint NoGlass	180	•							•										•	•				
Aircube Deeppleat Pro Paint	182				•				•								•			•				

Good for your budget and the environment. Airroll Paintcard PFF is a quick and easy way to replace an expensive water-curtain system. And it offers four to six times greater paint loading than glass fiber too.

Airroll Select Paint Dust

Product Range



Select

Features



Applications



KEY FACTS

- Glass fiber filter medium
- To separate paint mists
- Free of silicon and paint-damaging substances
- Resistant to acetone

DESIGN

Continuously-spun glass fiber filter mats with a progressive structure to provide even dirt loading.

APPLICATIONS

Floor filter for color mist separation in paint cabins and spray booth in the automobile industry, body paint shops, carpentry workshops, etc.

Airroll Select Paint Dust

PERFORMANCE DATA

Dimensions	Average arrestance	Flow rate	Pressure Drop
mm	Paint mist (%)	m/s	Pa
750 x 20000 x 50	90 – 95	2.5	6 – 30
750 x 20000 x 70	93 – 97	2.5	7 – 40
750 x 20000 x 100	98 – 99	2.5	14 – 60

SPECIFICATION

Recommended air velocity	2.5 m/s	Recommended final pressure drop	80 Pa for 50 mm and 70 mm, 130 Pa for 100 mm
Heat resistance	Max. 180 °C	Moisture resistance	80 %
Regenerable	No	Incinerable	No

Airroll Paintcard PFF

Product Range



Features



Applications



KEY FACTS

- Self supporting, environmentally-friendly design
- Four to six times greater paint loading than glass fiber
- Simple method for retrofitting expensive water-curtain systems
- Ensures an even air flow across the cabin

DESIGN

Self-supporting filter medium made from 100% recycled cardboard. Paper pleats for effective paint storage.

APPLICATIONS

Prefilter for exhaust air in spray and paint cabins. Dry filter for cross-draft paint booths.

Airroll

Paintcard PFF

PERFORMANCE DATA

Width x Length	Pleats	Filter area / packaging unit	Flow rate	Pressure Drop
approx. mm		m ²	m/s	Pa
750 x 13000	330	10	0.75	30
900 x 11000	270	10	0.75	30
1000 x 10000	250	10	0.75	30

SPECIFICATION

Recommended air velocity	0.75 m/s	Recommended final pressure drop	Max. 150 Pa
Heat resistance	Max. 100 °C	Moisture resistance	100 % rel. humidity
Regenerable	Yes	Incinerable	Yes

Airroll Pro

Paint NoGlass

Product Range



Features



Applications



Filter Class

G

Coarse



KEY FACTS

- Contains no irritants
- Zero risk of shedding
- Last up to four times longer than equivalent glass media
- Suitable for heavy-duty use
- High dust and paint holding capacity

DESIGN

Constructed from robust, flexible, polyester fibers connected by strong bonds, with no risk of shedding.

APPLICATIONS

Designed for paint booth and other wet/dry applications.

Airroll Pro

Paint NoGlass

PERFORMANCE DATA

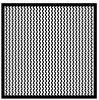
Filter Class		Dimensions	Air Velocity	Pressure Drop
ISO 16890	EN 779	mm	m/s	Pa
Coarse 70%	G4	750 x 20000 x 30	1.5	≤22
Coarse 70%	G4	1000 x 20000 x 30	1.5	≤22
Coarse 70%	G4	2000 x 20000 x 30	1.5	≤22
Coarse 70%	G4	750 x 20000 x 40	1.5	≤30
Coarse 70%	G4	1000 x 20000 x 40	1.5	≤30
Coarse 70%	G4	2000 x 20000 x 40	1.5	≤30
Coarse 70%	G4	750 x 20000 x 50	1.5	≤35
Coarse 70%	G4	1000 x 20000 x 50	1.5	≤35
Coarse 70%	G4	2000 x 20000 x 50	1.5	≤35

SPECIFICATION

Recommended air velocity	2 m/s	Recommended final pressure drop	80 Pa
Heat resistance	Max. 70 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

Aircube Deeppleat Pro Paint

Product Range



Features



Applications



Filter Class

ePM1



KEY FACTS

- Operates in temperatures up to 500 °C
- Large filter area up to 10 m²
- Compact dimensions
- Long service life
- Silicon free

DESIGN

Hot-dip galvanized steel frame with grills to front and rear faces. Pleat pack is separated by aluminum spacers and sealed in place using a microglass filter media. Glass rope gasket is applied to the rear of the header without the use of glues or chemicals for extremely high temperature resistance.

APPLICATIONS

For industrial environments with both high temperatures and high flow rates, such as paint-finishing applications in the automobile industry.



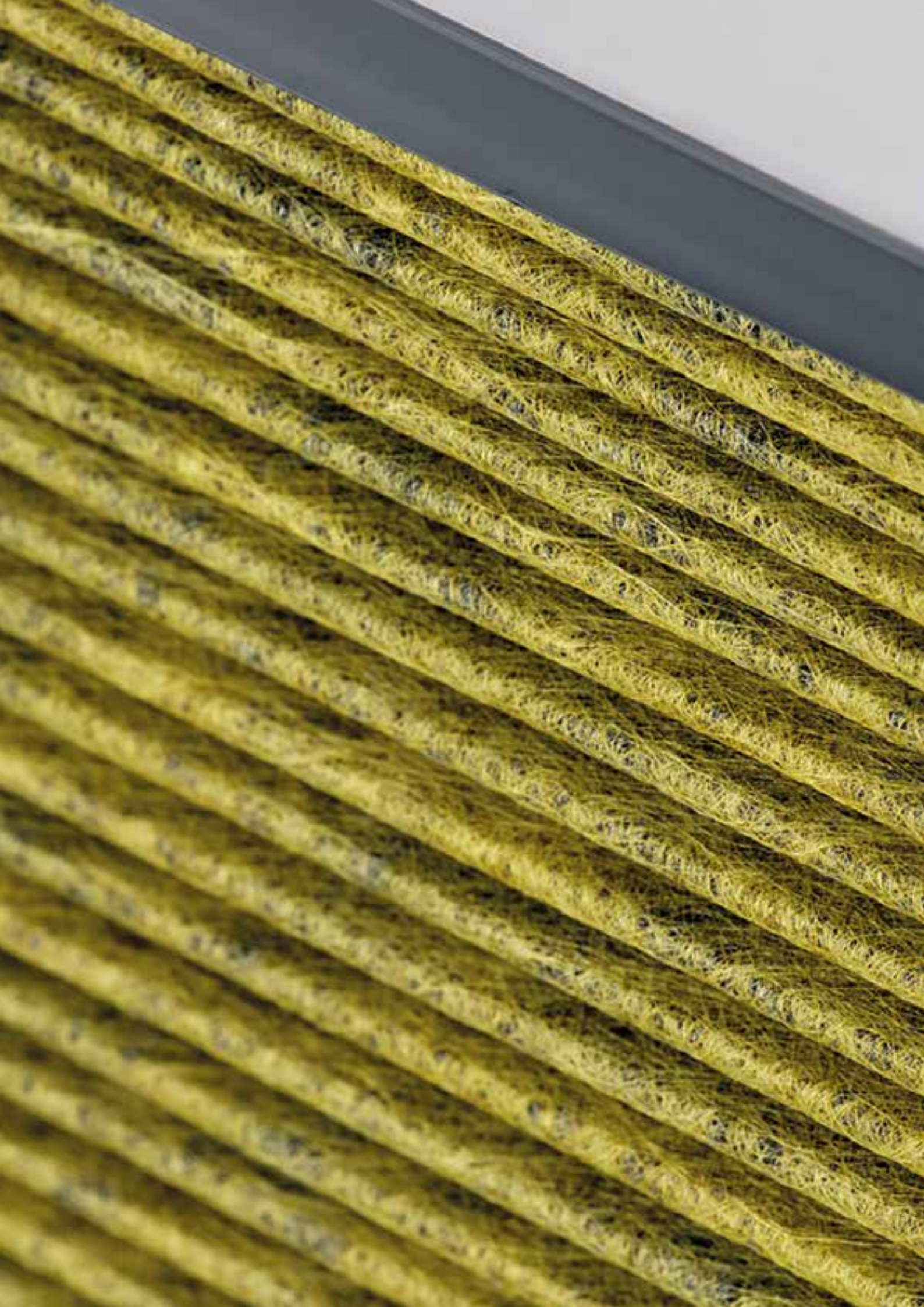
Aircube Deeppleat Pro Paint

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
ISO 16890	mm	m³/h	Pa	kWh/year	Eurovent 2019
ePM1 50%	287 x 592 x 270	1700	190		
ePM1 50%	592 x 592 x 270	3400	190	2379	E

SPECIFICATION

Recommended air flow	Flow rate ± 10 %	Recommended final pressure drop	450 Pa
Heat resistance	275 °C (up to 500 °C for < 30 mins)	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	No



FreciousComfort Filters

Used to: Improve indoor air quality and reduce allergic reactions in public and commercial spaces.

FreciousComfort technology allows allergy sufferers to breathe easy. Thanks to anti-allergenic and anti-microbial functions, FreciousComfort filters block free allergens and inhibit the growth of mold and bacteria.

FreciousComfort filters are available in pocket (bag) and compact forms, with a special Carboactiv version removing odors and harmful gases too.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
FreciousComfort Filters	184																							
Airpocket FreciousComfort	186				•				•								•							
Carboactiv Cube FreciousComfort	188				•				•	•	•			•			•							

The unique FreciousComfort filter media contains a special, all-natural polyphenol coating that inhibits microbial growth and inactivates free allergens.

Airpocket FreciousComfort

Product Range



Applications



Filter Class

ePM1



KEY FACTS

- Anti-allergenic coating inactivates free allergens
- Anti-microbial treatment prevents bacteria and molds on the clean air side
- Particle filtration via synthetic, meltblown filter media
- High dust holding capacity

DESIGN

Pocket filters built with metal or plastic frame. Single pocket made from multilayer, polypropylene meltblown media with integrated prefilter layer and conical spacer seams for an optimal V shape.

APPLICATION

Improvement of indoor air quality and reduction of allergic reactions in public buildings or other places where people gather.



Airpocket

FreciousComfort

PERFORMANCE DATA

Filter Class	Dimensions	Pockets	Flow Rate	Pressure Drop*	Energy Consumption	Energy Class
ISO 16890	mm		m ³ /h	Pa	kWh/year	Eurovent 2019
ePM1 60%	592 x 592 x 635	8	3400	110	1699	D
ePM1 60%	490 x 592 x 635	6	2800	110		
ePM1 60%	287 x 592 x 635	4	1700	110		
ePM1 60%	287 x 287 x 635	4	850	110		
ePM1 60%	592 x 490 x 635	8	2800	110		
ePM1 60%	592 x 287 x 635	8	1700	110		
ePM1 80%	592 x 592 x 635	8	3400	225	2843	E
ePM1 80%	490 x 592 x 635	6	2800	225		
ePM1 80%	287 x 592 x 635	4	1700	225		
ePM1 80%	287 x 287 x 635	4	850	225		
ePM1 80%	592 x 490 x 635	8	2800	225		
ePM1 80%	592 x 287 x 635	8	1700	225		

SPECIFICATION

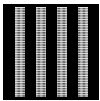
Recommended air flow	Flow rate +-15 %	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop +100 Pa, or initial pressure drop x 3
Heat resistance	Max. 70°C	Moisture resistance	100 % rel. Humidity
Regenerable	No	Incinerable	Yes (excluding metal frame versions)

OPTIONS

Frame	Plastic or galvanized steel
Gasket	EPDM flat gasket
Header depth	25 mm or 20 mm

Carboactiv Cube FreciousComfort

Product Range



Features

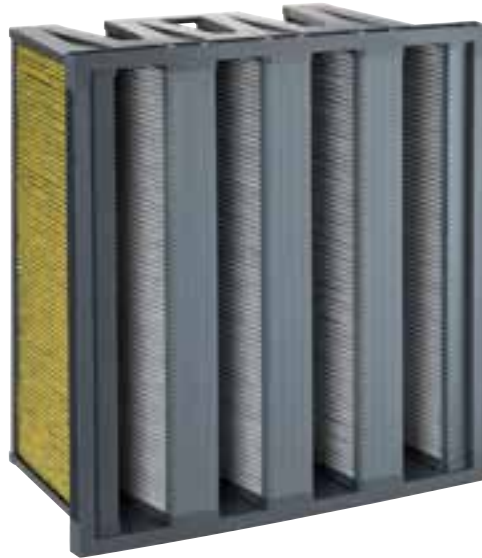


Applications



Filter Class

ePM1



KEY FACTS

- Anti-allergenic coating inactivates free allergens
- Anti-microbial treatment prevents bacteria and molds on clean air side
- Particle filtration and gas adsorption in one layer
- Removes odors and captures harmful gases
- Certified quality (bifa, Hohenstein Institute)

DESIGN

Filter elements are sealed into a 4V plastic frame with polyurethane for an extremely robust construction. The pleat packs are built up of three layers featuring particulate matter filtration, activated carbon and the FreciousComfort with the biofunctional layer. The frame features an integrated handle for ease of transportation.

APPLICATION

Improvement of indoor air quality and reduction of allergic reactions in public buildings or other places where people gather.

Carboactiv Cube

FreciousComfort

PERFORMANCE DATA

Filter Class	Dimensions	Flow Rate	Pressure Drop*
ISO 16890	mm	m ³ /h	Pa
ePM1 50%	592 x 592 x 300	3400	140
ePM1 50%	592 x 287 x 300	1700	140

SPECIFICATION

Heat resistance	< 30°C (Peak 50°C)	Rec. final pressure for efficient energy use acc. to EN 13053	Lowest value of initial pressure drop + 100 Pa, or initial pressure drop x 3
Regenerable	No	Moisture resistance	< 60 % (Max <90 %)
Adsorption capacity	750 g	Incinerable	Yes*

*Please adhere to local disposal guidelines

OPTIONS

Gasket	Continuous polyurethane 1 or 2 sides
---------------	--------------------------------------



Other Products

Used to: Separate grease and help ensure the correct filter installation

Some products are so specialized, they need their own section. Other products include grease filters for use in commercial kitchens and installation frames that are suitable for use with a range of filter types, shapes and sizes.

	PAGE	ISO Coarse	ISO ePM10	ISO ePM2.5	ISO ePM1	EPA	HEPA	ULPA	HVAC	Cleanroom	Industrial	ATEX-rated	Burst resistant	Gas adsorption	Glass fiber	Grease removal	High efficiency	High temp.	NoGlass media	Paint application	Pulse function	Re-gen	Water removal	XL capacity
Other Products	190																							
Airpad Select Grease	192								•							•								
Airhandling	194								•	•	•													

A secure fit. Front-withdrawal frames feature P-clips to hold the filter firmly, but simply, in place.

Airpad Select Grease

Product Range

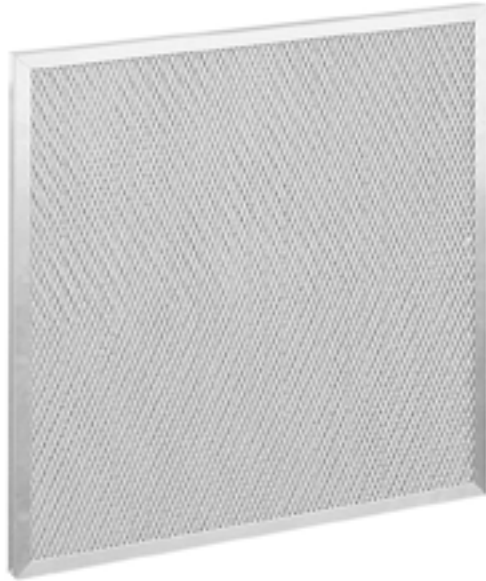


Select

Features



Applications



KEY FACTS

- High thermal and chemical durability
- Regenerable several times

DESIGN

Multi-layer metal filter cell, with metal gratings permanently affixed to the outer frame.

APPLICATIONS

For the capture of grease in commercial kitchens.

Airpad Select Grease

PERFORMANCE DATA

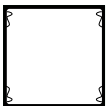
Dimensions	Frame material	Flow rate	Pressure Drop
mm		m ³ /h	Pa
250 x 500 x 12	Stainless Steel	400	15
400 x 400 x 12	Stainless Steel	540	15
400 x 500 x 12	Stainless Steel	660	15
500 x 500 x 12	Stainless Steel	830	15
500 x 625 x 12	Stainless Steel	1050	15
287 x 592 x 23	Galvanized	850	15
400 x 500 x 23	Galvanized	1000	15
500 x 500 x 23	Galvanized	1250	15
592 x 592 x 23	Galvanized	1800	15
287 x 592 x 48	Galvanized	850	25
400 x 500 x 48	Galvanized	1000	25
500 x 500 x 48	Galvanized	1250	25
592 x 592 x 48	Galvanized	1800	25
287 x 592 x 23	Aluminum	850	15
400 x 500 x 23	Aluminum	1000	15
500 x 500 x 23	Aluminum	1250	15
500 x 625 x 23	Aluminum	1570	15
592 x 592 x 23	Aluminum	1800	15
287 x 592 x 48	Aluminum	850	25
400 x 500 x 48	Aluminum	1000	25
500 x 500 x 48	Aluminum	1250	25
592 x 592 x 48	Aluminum	1800	25

SPECIFICATION

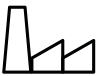
Recommended air velocity	Flow rate ± 20 %	Recommended final pressure drop	100 Pa
Heat resistance	Max. 250 °C	Moisture resistance	100 % rel. humidity
Regenerable	No	Incinerable	Yes

Airhandling Installation Frames

Product Range



Applications



KEY FACTS

- Quick and easy filter replacement
- Compatible with a wide range of air filters
- Stable, compact design
- Non-standard sizes to fit any aperture also available

DESIGN

Front, rear and side withdrawal frames manufactured from galvanized or stainless steel.

APPLICATIONS

Installation frames for air filters.

Airhandling Installation Frames

PAD-HOLDING FRAMES

This type of frame can be fitted with the AIRMAT GLASS or AIRMAT NO GLASS. The frame is supplied with a mesh grill downstream to support the material and can be supplied with a clip on the front to retain the media in the frame.



FRONT-WITHDRAWAL FRAMES

Standard sizes available are 610 x 610, 610 x 508 and 610 x 305 mm in the depths 75, 100, 120, 170 and 320 mm. Other sizes can be made to order. These frames can be used with the complete MANN+HUMMEL air filtration range.

The frames are supplied with a gasket fitted to eliminate air bypass.

Other installation frames available upon request.





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