camfil
CLEAN AIR SOLUTIONS

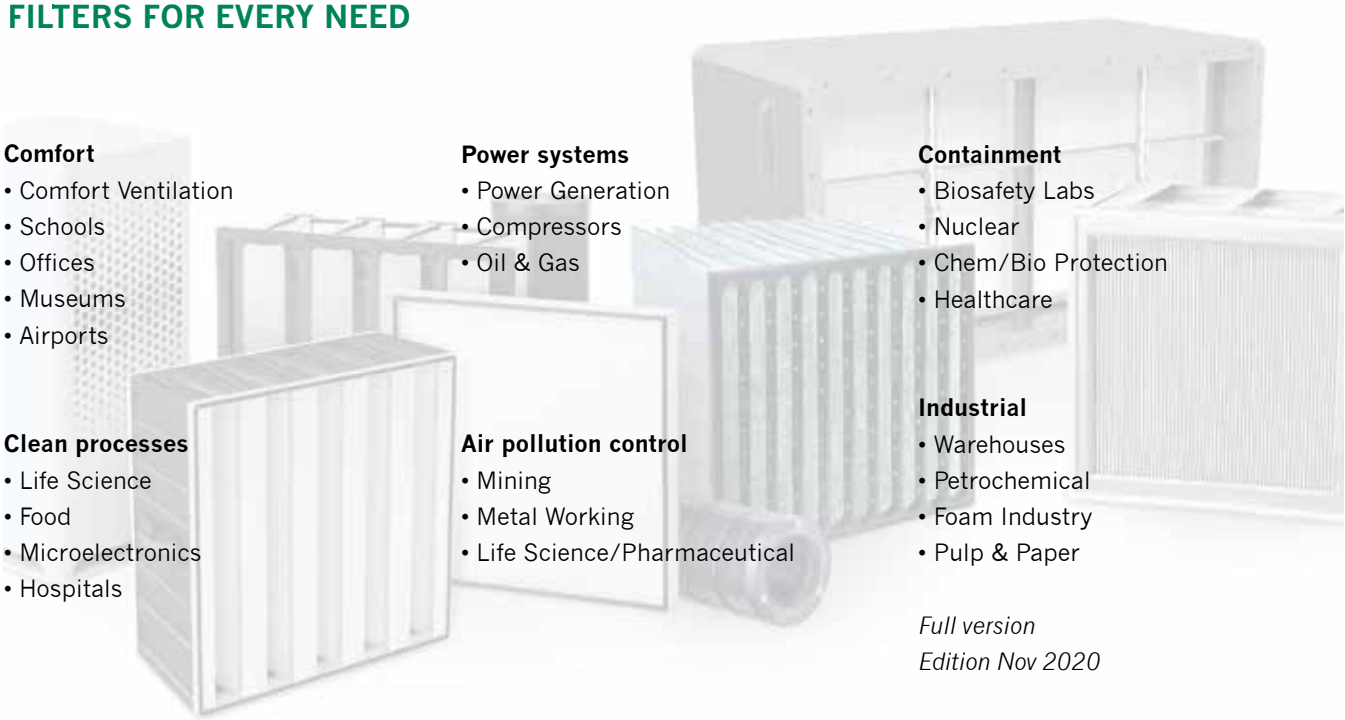
AIR FILTRATION PRODUCTS & SOLUTIONS

Camfil air filtration products & solutions

Over 50 years of clean air solutions

In 1960, Sweden is about to start its nuclear program. Air filtration specialist Gösta Larson realizes that these new power plants need air filters of better quality than ever before. Using low quality air filters in a nuclear plant can quickly turn into a catastrophe. Gösta convinces the nuclear engineers to start using top quality filters and quickly wins a business contract. In 1963, he builds his first factory in Trosa, Sweden. Camfil is founded. Today, with more than 50 years of experience, Camfil delivers clean air solutions to customers and local markets all over the world. With high quality products, we are contributing to something that is essential to everyone – clean air for health, performance and well-being.

FILTERS FOR EVERY NEED



Comfort
- Comfort Ventilation
- Schools
- Offices
- Museums
- Airports

Power systems
- Power Generation
- Compressors
- Oil & Gas

Containment
- Biosafety Labs
- Nuclear
- Chem/Bio Protection
- Healthcare

Clean processes
- Life Science
- Food
- Microelectronics
- Hospitals

Air pollution control
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- Metal Working
- Life Science/Pharmaceutical

Industrial
- Warehouses
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Full version
Edition Nov 2020

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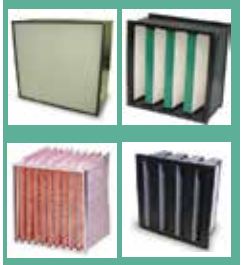
Dust, Fume & Mist Collectors

Quick Selection Guide

			Filter Grade				Air Filter Selection
			US	EU	GLOBAL		
Primary Filtration	Medium Efficiency	Primary	MERV 2 - 4 MERV 5 - 6 MERV 7 - 9	G2 ≥ 65% G3 ≥ 80% G4 ≥ 90% Average Arrestance	**ePM Coarse** Arrestance		
Filtration for Air Conditioning Systems	High Efficiency	Medium	MERV 10 MERV 11 - 12	M5 ≥ 40% M6 ≥ 60%	**ISO ePM$_{10}$** >50% **ISO ePM$_{2.5}$** 50 - 60%		
		Fine	MERV 13 MERV 14 MERV 15 Minimum Efficiency Reporting Value	F7 ≥ 80% F8 ≥ 90% F9 ≥ 95% Average Efficiency	**ISO ePM$_1$** 50 - 70% **ISO ePM$_1$** 70 - 85% **ISO ePM$_1$** >85%		
Final Filters/ Clean Room Filters	Very High Efficiency	EPA HEPA ULPA	DOP 0,3 um ≥ 95% ≥ 99,9% ≥ 99,97% ≥ 99,99% ≥ 99,999%	MPPS (Most penetrating Particle Size) E10 ≥ 85% E11 ≥ 95% E12 ≥ 99,5% H13 ≥ 99,95% H14 ≥ 99,995% U15 ≥ 99,9995% U16 ≥ 99,99995% U17 ≥ 99,999995%			
Molecular							
Filter Holding Frames and Casings							

Caring for the environment

‘‘How will your filters help you to reduce the environmental impact of your installations?’’

Camfil has been involved in air quality for over 50 years, and has to set an example when it comes to the environment. It therefore has an obligation to provide its customers with practical assistance on green issues. With regard to complying with the law on waste disposal, Camfil is with you all the way; in designing products and services, Camfil shares your environmental concerns.

It is now widely acknowledged that air conditioning filters can be considered ordinary industrial waste, whereas filters used in environments containing potentially hazardous products (e.g. return air from clean rooms, spray booths and operating theatres) should be considered special industrial waste and must be disposed of by an approved route using accredited systems.

Please Note - your individual circumstances depend entirely on your processes and we recommend that you approach your usual waste disposal provider, who will be qualified to advise you on the matter.

In order to minimise waste, Camfil pay close attention to the life cycle of the product:

1. We make strenuous efforts to extend the lifespan of our filters and to optimise their performance, which means that you reduce your operating costs, the frequency with which you have to replace the filters and the cost of their disposal.

Just look at the large filter surface used in many of our products and remember large filter area is synonymous with long filter life.

2. We favour the use of recyclable or incinerable materials.

3. We are continually researching effective materials with low pressure loss, a parameter that has a direct influence on the energy consumed during the lifetime of the filter.

4. The Green CAMFIL range ensures that you can dispose of your used filters with less hassle and at lower cost. The use of plastics or cardboard lends itself to the incineration of used filters whilst ensuring compliance with all provisions of environmental law.

5. We minimise the weight of materials used in the construction of our filters which helps reduce the waste mass as far as possible when the filter reaches the end of its life.

6. In our ISO 14001 certified factories, we are phasing out the use of chloride solvents and hazardous products from our processes.

Follow up CFM

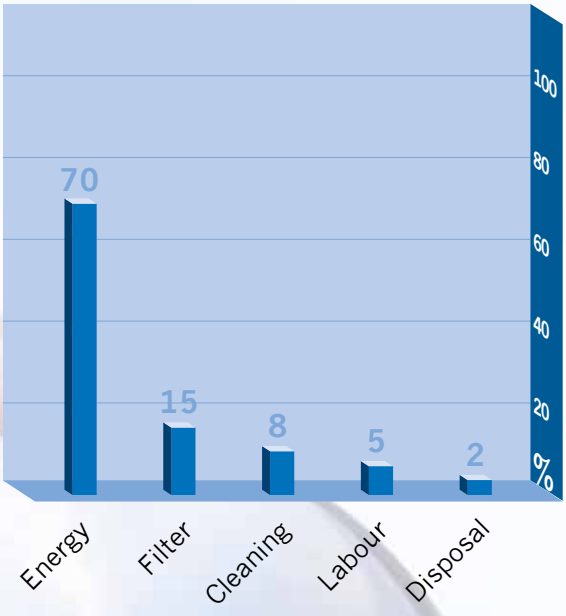
Conscious of the increasing importance attached by our customers to waste management, Camfil can support you and take charge of replacing and organising the disposal of certain used filters as part of its CAMFIL FILTER MANAGEMENT (CFM) programme. For more information and to find out whether this service might work for you, please contact us.

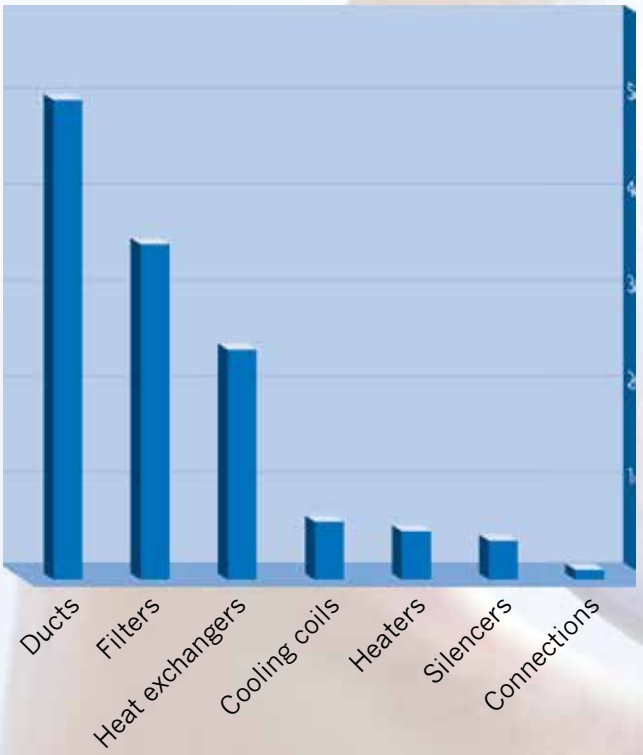
Would you like to reduce your energy outgoings?

Economic optimisation of air filtration

The price of crude oil has more than doubled in recent years and the cost of electricity is rising throughout the world. The World Bank's Energy Group has predicted that total energy consumption is set to rise at the current rate for at least the next 50 years.

The cost of ventilation
Ventilating buildings, as we know, can be a very expensive business. The average energy cost of filters is around 30% of the total costs of the system. By choosing the right filter, for example the ePM1 60% for its efficiency and its very low average pressure loss, energy savings can be made whilst maintaining a high level of IAQ. When you consider that the air filter is the most inexpensive and simplest component to change, savings can be made quickly.

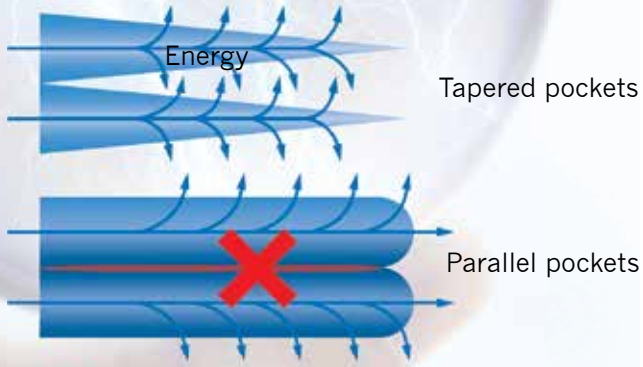




Typical pressure loss (Pa) in a ventilation system with 2 stage filtration

Choosing the right filter saves energy

In order to optimise the lifespan of the filter and to reduce energy consumption, it is important to bear in mind the extent to which their configuration and their structure influence the average pressure loss.



✕ Blocked surface = high energy consumption

1Pa = 1 euro

A rule of thumb, for a typical installation running for half of the time over one year, is that one additional Pascal in pressure drop adds 1 euro per filter in extra energy cost.

A badly designed filter construction could add 50 Pascal compared to a well engineered filter, even if it claims to have the same efficiency. In other words it adds 50 euros to the annual energy bill, for every filter.

70% of the total cost comes from energy costs

Calculations show that energy normally accounts for 70% of the total cost of the life cycle of an air treatment system. Energy consumption is in direct proportion to the filter's average pressure loss.

Software aimed at helping select the right filter = optimising energy costs

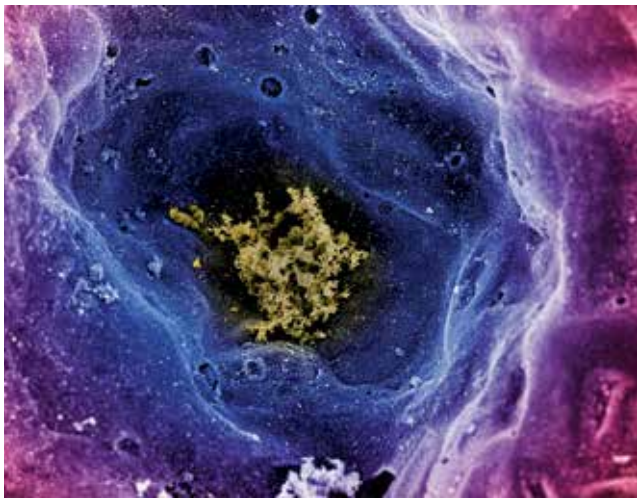
For over 50 years, Camfil has played a pioneering role in designing filters with low average pressure loss for all efficiency levels for air conditioning and ventilation systems. Camfil was the first filter manufacturer to develop sophisticated software that calculates the overall cost for the complete life cycle of air filters. As part of our continuous improvement, this software has evolved over time and it uses real life data collected from numerous tests in real use conditions. This enables us to calculate the pressure loss of the filter and its actual lifespan, rather than relying on theoretical calculations.

For more information and assistance, please contact your nearest branch of Camfil.

Indoor Air Quality (IAQ)

Environmental Health

Environmental health is becoming a central concern at national and international levels. Indoor Air Quality (IAQ) is an area that focuses on providing a comfortable and healthy indoor environment which is important to the well being of people. We spend 90% of our time in indoor spaces and, as such, the issue of IAQ is a key aspect of public health, especially since this affects the entire population, particularly the most sensitive and vulnerable.
The industrialised world is a very different place compared to 50 years ago and one major difference is that the air we breathe is now more heavily and more diversely polluted than at any time in the past. Although natural sources of pollution exist, the greater concerns arise as a result of mans own activities which have increased both the amount and the complexity of pollutants found in the atmosphere. There are tens of thousands of synthetic chemicals (not found in nature) made today with an estimated annual production rate in excess of a billion tonnes. These chemicals are released to the atmosphere during manufacture use and can subsequently travel vast distances. They are an inevitable part of our lives.

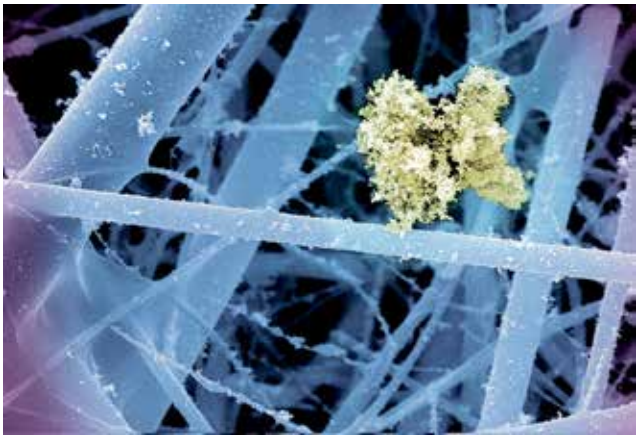


Atmospheric pollution

Atmospheric pollution can be categorised in two different ways. The simplest is measurement (a physical categorisation) to distinguish gaseous pollutants from solid, dust and particulate pollutants. The second is based on the origin of pollutants and is divided into primary and secondary pollutants.

Primary pollutants

Primary pollutants are substances present in the atmosphere, in the form in which they are emitted. Of these pollutants, some are especially prominent:
Sulphur dioxide (SO_2) emitted by certain industrial processes, such as paper-making and refining, and in particular by the use of sulphurous fossil fuels. SO_2 is one of the main causes of acid rain on account of its transformation in the atmosphere into sulphuric acid (H_2SO_4). Nitric oxides (NO_x), and in particular nitrogen dioxide (NO_2), which is usually emitted from the burning of fossil fuels (particularly vehicles), contribute towards the formation of ozone in the atmosphere. Polycyclic aromatic hydrocarbons are emitted by the incomplete burning of fuels or carbon, which can usually be found in the air, linked to particles. Some of them are known to be highly carcinogenic.



Secondary pollutants

Secondary pollutants are substances whose presence in the atmosphere is the result of chemical transformations related to the interaction of compounds known as precursors. Ozone is the main secondary pollutant, it is formed as a result of a photochemical process in the presence of certain primary pollutants (carbon monoxide, nitric oxide and volatile organic compounds). This is a gas that is naturally present in the atmosphere in low concentrations at high altitude. At low altitude, on the other hand, the development of the concentration is primarily the result of human activity. Sulphuric acid and nitric acid form in the atmosphere as a result of humidity from sulphur dioxide and nitric oxide respectively.

Solid pollutants

Solid pollutants usually in the form of small (fine) particles are very important and from a cleanliness point of view, these particles deserve particular attention. These are capable of acting as vectors to other substances, such as carcinogenic polycyclic aromatic hydrocarbons, which is particularly worrying given the capacity of the finest particles (< 1**µ**m) to find their way into the lungs and even to penetrate into the bloodstream. Effective solutions aimed at combating such particle pollution are now widely known. The development of the main standards and recommendations governing the manufacture and use of modern air filters is clearly geared towards much higher filtration levels than have been permitted in the past

City

Our range of '**City**' filters has been developed with the sole purpose of combating atmospheric pollution and its major components.

CityCarb and **City-Flo** combine particulate filtration with pollution and odour filtration. They are suitable for any new installation and can be readily installed to upgrade and improve systems currently equipped with standard filters.

With its higher molecular adsorption, **CitySorb** is ideal for highly polluted urban environments. **CitySorb** must be fitted in conjunction with a particulate filter above ePM1 50% efficiency, **Hi-Flo** or **Opakfil** type.

Air Pollution and PM1

Air pollution has been assessed to be 4th highest risk factor to human health and by far the most serious environmental risk . Air pollution includes particulate matter (PM). We identify both man-made sources such as vehicle exhaust, construction and power generation alongside natural sources such as pollen, forest fires and windblown sand and soil. Particulate matter from man-made sources, especially combustion processes, tends to be at the small end of the size range and often these particles are released into the air near centres of high population density, i.e. cities.

Many governments and NGOs publish pollution data in real time on websites. The most commonly reported values relate to particle fractions PM2.5 and PM10. In 2005 the World health Organisation (WHO) published air quality guidelines (AQG) which included recommendations for exposure limits to PM2.5 and PM10.

Recently there has been a shift in focus towards a smaller particle fraction, PM1. This is all particles sized 1 micron and less. A micron is one thousandth of a millimetre. There is a growing body of evidence from the scientific and medical communities that it is the very small particles that we breathe that are most hazardous. By number, particulate matter is very much biased towards particles less than 1 micron in size.

The body has some natural defences against larger particles such as the nasal hairs and mucas membranes. However these are not so effective for smaller particles and potentially they are able to reach the lungs. Fine particles, less than 1 micron are able to penetrate into the important fine structure of the lungs, the alveoli. Extremely fine particles, so called ultra-fines and nano particles are able to pass through the alveoli and enter the bloodstream when they are distributed around the entire body and reach critical organs such as the brain, heart, liver and endocrine system.

A study published by UK researchers in 2016 reported that ultrafine metallic particles (<0.1 micron) had been found in the human brain and these have been linked to the onset of Alzheimer's Disease. These metallic particles appeared to have been exposed to high temperatures and it is concluded that they originated in the combustion cycle of diesel engines.

Camfil were involved in another study published in 2016. Polyaromatic hydrocarbons (PAH) are a group of chemicals that are released into the air when petrol, diesel, coal, wood and other organic materials are combusted. PAH are characterised by their toxicity including the ability to be capable of causing mutations in human DNA which can lead to cancers. This behaviour is known as mutagenicity. PAH can exist as particles or in the molecular form, but often they are found condensed onto the surface of PM1, particles smaller than 1 micron. In this study four different air filtration medias (corresponding to M6, F7 [x2] and F9 acc. EN779:2012) were assessed in respect of their ability to:

1. Remove fine particles (0.4 micron) according to method EN779:2012
2. Reduce the level of PAH in urban air.
3. Reduce the mutagenicity of urban air.

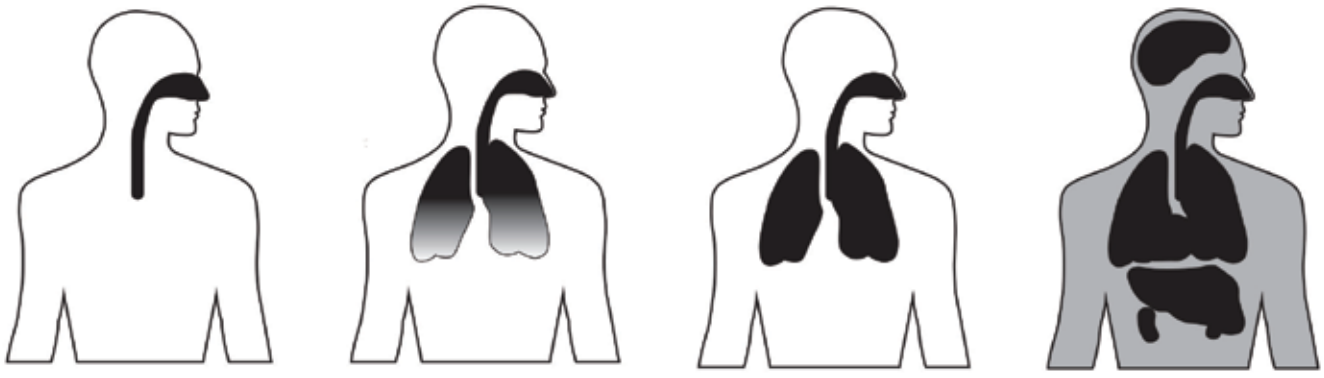
The study concluded that:

A.The PAH content of urban air was progressively reduced by passing the air through filter media of increasing efficiency between M6, F7 and F9. When the reduction in PAH was plotted against the efficiency of the filters in removing 0.4 micron sized particles (EN779:2012 results), the relationship was linear.

B. The mutagenicity of urban air was progressively reduced by passing the air through filter media of increasing efficiency between M6, F7 and F9. When the reduction in mutagenicity was plotted against the efficiency of the filters in removing 0.4 micron sized particles (EN779:2012 results), the relationship was linear.

C.There is a direct relationship between the removal of 18 common PAHs and the reduction of mutagenicity of urban air.
D.The observed results support the theory that a significant proportion of airborne PAHs are bound to very small particles; PM1, and highly efficient filters are required to effectively reduce their concentration in air.

So, the hazard from breathing very fine particles, PM1 is clear. There is a new global standard for the testing and classification of air filters. To afford maximum protection against these hazardous pollutants, Camfil strongly recommend the use of ePM1 rated filters according to IS016890.



[1] Professor Michael Brauer. University of British Columbia, School of Population and Public Health, Vancouver, Canada.

[2] Prof David Allsop et al. Proceedings of the National Academy of Sciences, Sept. 2016.

[3] *"Removal of polycyclic aromatic hydrocarbons and genotoxic compounds in urban air using air filter materials for mechanical ventilation in buildings"* by Ioannis Sadiktsis1, Gertrud Nilsson2,3, Ulf Johansson2, Ulf Rannug3 and Roger Westerholm1. Published in ASHRAE's research publication Science and Technology for the Built Environment, February 2016

ISO 16890

Camfil welcome the publication of a new ISO standard for the testing and classification of air filters used in general ventilation systems. Importantly, ISO16890 has global applicability and will ultimately be applied in all our markets. After a period of coexistence, ISO16890 fully replaced EN779:2012 and the European norm was withdrawn in 2018. It is obvious that it would be beneficial if ISO16890 also replaced ASHRAE 52.2. Whilst this could happen in the future, the time scale is not yet clearly defined..

Benefits of ISO16890

For specifiers, purchasers and users of air filters	For the filter industry
The standard recognises that air filters positively influence indoor air quality and human health.	It will be easier to compare products. This will drive innovation and customer value. Very poor performing products may be eliminated.
The test method and filter classification system are better aligned with real-world pollution.	Easier to explain product value in terms of function and customer application.
The global applicability will eliminate confusion that occurred when attempts were made to compare results of EN779 and ASHRAE 52.2 tests.	This standard will remove an obstacle to global trade.

How ISO16890 compares to EN779:2012 and ASHRAE 52.2.

	EN779:2012	ASHRAE 52.2	ISO16890
Filter test method	Efficiency measurement made using **0,4µm particles**	Efficiency measurements made using 0,3- 10 µm particles. Classifications relate to results for **E1, E2 & E3 efficiency classes - MERV rating**	Efficiency measurements made using 0,3- 10 µm particles. Classifications relate to result for **PM1, PM2.5 & PM10**
Discharging method	Discharge only filter media, using IPA soak. **A tough discharging method.**	Discharge entire filter using KCL salt. **A soft discharging method.** Discharge is not mandatory - may be applied as Appendix J procedure.	Discharge entire filter using IPA vapor. **A tough discharging method**
Filter loading method	Dust loading with ASHRAE dust. **Coarse dust.**	Dust loading with ASHRAE dust. **Coarse dust.**	Dust loading with ISO fine dust. **Fine dust (more like real-world).**
Classification system	**9 Classes**	**16 Classes**	**49 Classes In 4 different groups**

ISO16890: Overview of Classification System

Group Designation	Requirement			Class reporting value
	$ePM_{1,\ min}$	**$ePM_{2.5,\ min}$**	**ePM_{10}**	
ISO Coarse	-	-	<50%	Initial gravimetric arrestance
ISO ePM_{10}	-	-	>/=50%	ePM10
ISO $ePM_{2.5}$	-	>/=50%	-	ePM2.5
ISO ePM_{1}	>/=50%	-	-	ePM1

ISO16890: Classification Table

PM1 Classification	PM2.5 Classification	PM10 Classification	Coarse
ePM1 95% ePM1 90% ePM1 85% ePM1 80% ePM1 75% ePM1 70% ePM1 65% ePM1 60% ePM1 55% ePM1 50%	ePM2.5 95% ePM2.5 90% ePM2.5 85% ePM2.5 80% ePM2.5 75% ePM2.5 70% ePM2.5 65% ePM2.5 60% ePM2.5 55% ePM2.5 50%	ePM10 95% ePM10 90% ePM10 85% ePM10 80% ePM10 75% ePM10 70% ePM10 65% ePM10 60% ePM10 55% ePM10 50%	Arrestance reported in 5%
Requirement: >50% initial efficiency >50% discharged efficiency	Requirement: >50% initial efficiency >50% discharged efficiency	Requirement: >50% initial efficiency No discharge requirement	No discharge requirement

Note: ISO16890 demands a minimum (discharged efficiency) of 50% for ePM1 and ePM2.5 rated filters. This will ensure that those filters always provide a decent standard of long-term filtration in real-world customer applications.

Comparison Chart
ASHRAE 52.2, EN779:2012 and ISO16890

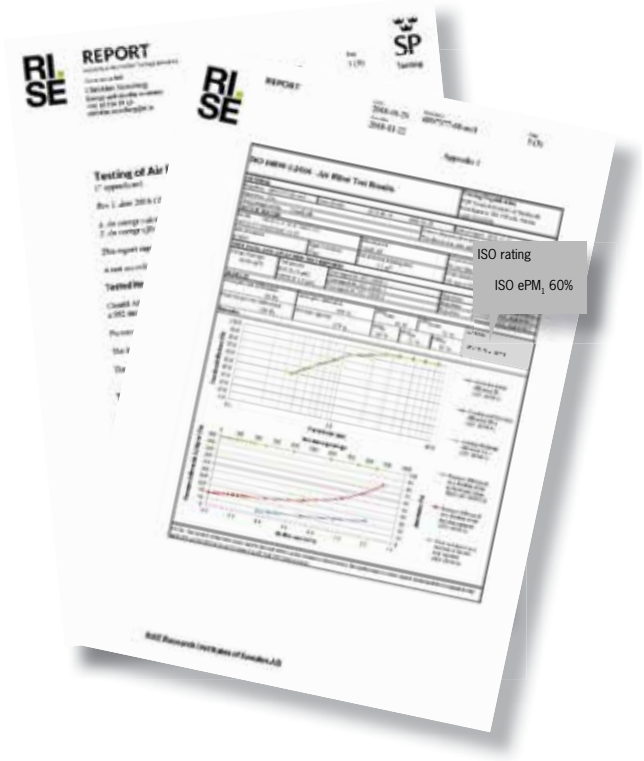
TYPICAL EFFICIENCIES OF AIR FILTERS AGAINST PM1 AND OTHER FINE DUST MASS CONCENTRATIONS

EN779:2012 / EN ISO 16890	ISO ePM_1	ISO $ePM_{2.5}$	ISO ePM_{10}
M5			≥50%
M6		≥50%	≥60%
F7	≥50%	≥70%	≥80%
F8	≥70%	≥80%	≥90%
F9	≥80%	≥90%	≥95%

ASHRAE 52.2 – TYPICAL EFFICIENCIES OF AIR FILTERS AGAINST PM1 AND OTHER FINE DUST MASS CONCENTRATIONS

ASHRAE 52.2 / EN ISO 16890	ISO ePM_1	ISO $ePM_{2.5}$	ISO ePM_{10}
MERV 10 (10-A)			≥50%
MERV 11 (11-A)		≥50%	≥60%
MERV 13 (13-A)	≥50%	≥70%	≥80%
MERV 14 (14-A)	≥70%	≥80%	≥90%
MERV 15 (15-A)	≥80%	≥90%	≥95%

Eurovent certified performance



Air filter certification - you can count on us!

Camfil, in conjunction with the main independent test laboratories in Europe, is committed to bringing you the highest levels of transparency with regard to the new test protocols for air filters.

The European Committee for Standardisation has recently published a new standard on “Particulate air filters for general ventilation · determination of filtration performance”. One of the aims of this new standard is to detail the in-situ performance of an air filter.

This new test protocol provides accurate data on the effectiveness of your air filters operating under real life conditions. Please always specify filters tested in accordance with EN ISO16890:2016. Your Camfil representative is available to explain this standard in detail should you require it · you can count on us!

Air filter performance

At Camfil we are going a step further to ensure the best possible performance for our customers. The European ventilation industry organisation Eurovent Certita has developed a certification programme to guarantee that our products live up to our promises.

The key elements of the programme are that:

- **Published data must be correct**
- **The products must comply with the EN ISO16890:2016 standard**
- **Filters must be tested by independent laboratories - RISE in Sweden, VTT in Finland and CETIAT in France**
- **The test laboratories must be ISO 17025 certified**
- **We as manufacturers must be quality certified to ISO 9000 or a corresponding standard**
- **Each year, Eurovent Certita selects, at random, four new filters from our range for inspection**

Read more on Eurovent Certita’s website: www.eurovent-certification.com

Eurovent Certita’s certification of our fine-dust filters means that you can rest assured that we live up to the performance requirements and the data we print in our official documentation. Our fine-dust filters are tested by independent laboratories selected by Eurovent Certita and that means security for you. Select Camfil air filters with Eurovent Certita certification · its guaranteed!

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Independent test results

Our Eurovent Certita certification covers bag filters, compact filters and panel filters in classes ePM1, ePM2,5 and ePM10, tested to EN ISO16890:2016. The initial pressure drop must remain within the tolerance levels set out in EN ISO16890:2016.*

All filters that we officially market in brochures or on our website in these filter classes are covered by the certification. Each class contains a range of product groups:

- **Same filter media/material (such as fibreglass)**
- **Same basic design (such as bag filters, compact filters etc)**
- **Same or lower air speed/net filter area**
- **Same filter class: ePM10, ePM2,5 and ePM1**
- **Published data must be available, specifying the model, type, filter material, filter class as per EN ISO16890:2016,**
- **Nominal airflow and initial pressure drop at nominal airflow.**

The filters are tested at independent test laboratories · in Sweden, the Research Institute, RISE, in Borås; in Finland, VTT in Espoo and CETIAT France in Lyon. These are the only laboratories in Europe that are accredited to ISO 17025.

The test laboratories are not told which company’s products they are testing, but are only given a number that Eurovent assigns to each individual filter.

*) Tolerance levels for initial pressure drop defined in EN ISO16890:2016: +(10%+Mt) or +(10Pa+Mt), whichever is highest. Mt = 5Pa (tolerance level defined in EN ISO16890:2016)

Energy efficiency classification

The way of comparing air filters.

At last, buyers of air filters will find it a lot easier to find the right filter– regarding both energy efficiency and indoor air quality. With the implementation of Eurovent Certita´s updated and objective system for classifying energy efficiency, it will be easier to find the right air filter for the lowest energy usage and highest indoor air quality. All air filters can be graded from A+ to E. Grade A+ stands for the lowest energy consumption and E for the highest. The classification, based on the filter test method EN ISO16890:2016, will give buyers a better understanding of annual energy consumption, average efficiency and minimum efficicency. The energy consumption of air filters in general ventilation systems has become the focus of attention as energy prices increase, and as demands to reduce CO2 emissions get tougher.

The standard.

The energy consumption of air filters can be determined as a function of the volume flow rate, the fan efficiency, the operation time and the average pressure drop. Due to the dust loading during operation, the pressure drop of an air filter is constantly increasing. The related energy consumption during a certain period of time can be calculated from the integral average of the pressure drop over this period of time.

Put your supplier to the test.

Many suppliers do not test their filters properly, making it impossible for customers to compare different brands. At Camfil, we test all our filters to guarantee a high standard of quality. Does your air filter supplier have what it takes?

- Is the supplier certified by Eurovent Certita?
- Are there labels on all boxes?
- Are all tests based on EN ISO16890:2016?
- Is there a test protocol for validation?

Calculation and classification.

The standard measures both filtration efficiency and pressure drop as a function of dust loading. A representative energy consumption level is calculated using the mean pressure drop difference averaged over the course of dust loading. On the basis of these figures, the energy performance of a filter over an operating period of one year is simulated in a laboratory. This representative energy value is used for a classification of air filters into energy classes.

Calculation and Energy Classification

The energy use in kWh/annum is calculated due to the formula in Eurovent REC 4/21-2018.

Where we define q_v = 0.944 m^3/s, t = 6000 h/a and h = 0.5

$$W = \frac{q_V \cdot \Delta\overline{p} \cdot t}{\eta \cdot 1000}$$

Annual energy use for filter classes

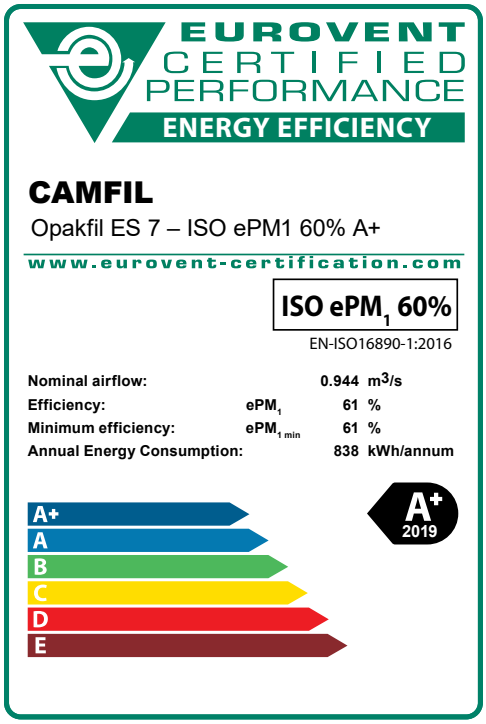
Eurovent Certita rules allow only 1% A+, 5% A, 15% B, and 30% C class filters in Europe. Update of Eurovent Energy Rating every 3 years.

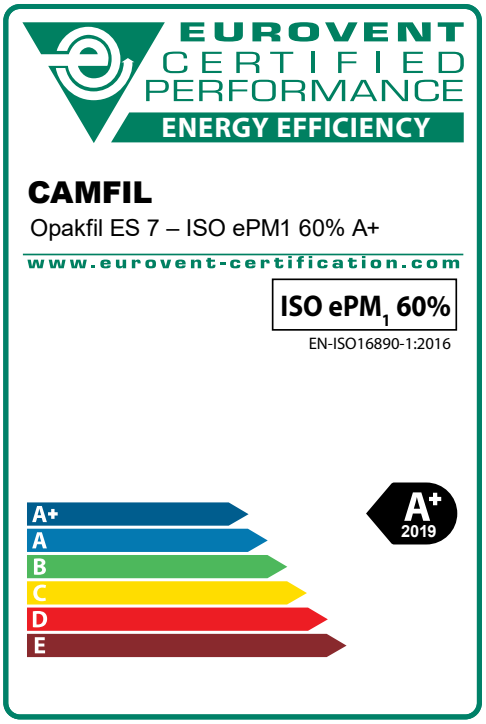
M_x = 200 g (AC Fine)	AEC in kWh/y FOR ePM_1 (ePM_1 and $ePM_{1,min} \geq 50\%$)					
	A+	A	B	C	D	E
50 & 55%	800	900	1050	1400	2000	>2000
60 & 65%	850	950	1100	1450	2050	>2050
70 & 75%	950	1100	1250	1550	2150	>2150
80 % 85%	1050	1250	1450	1800	2400	>2400
> 90%	1200	1400	1550	1900	2500	>2500

M_x = 250 g (AC Fine)	AEC in kWh/y FOR $ePM_{2.5}$ ($ePM_{2.5}$ and $ePM_{2.5,min} \geq 50\%$)					
	A+	A	B	C	D	E
50 & 55%	700	800	950	1300	1900	>1900
60 & 65%	750	850	1000	1350	1950	>1950
70 & 75%	800	900	1050	1400	2000	>2000
80 % 85%	900	1000	1200	1500	2100	>2100
> 90%	1000	1100	1300	1600	2200	>2200

M_x = 400 g (AC Fine)	AEC in kWh/y FOR ePM_{10} ($ePM_{10} \geq 50\%$)					
	A+	A	B	C	D	E
50 & 55%	450	550	650	750	1100	>1100
60 & 65%	500	600	700	850	1200	>1200
70 & 75%	600	700	800	900	1300	>1300
80 % 85%	700	800	900	1000	1400	>1400
> 90%	800	900	1050	1400	1500	>1500

Energy efficiency classification





Eurovent Energy Efficiency label

The new labeling system will be displayed on standard filter boxes.

There are two different ways of exercusion.

Full size 592x592mm, acc. to EN15805

1. Full size 592x592 mm, according to EN 15805

- Nominal air flow rate, 3400 m³/h
- Efficiency, (average of initial and discharged)
- Minimum efficiency (discharged)
- Annual Energy Consumption, kWh/annum
- Energy class

Certified values are to be find at:

Certified values are to be find at: www.eurovent-certification.com

Other ”family sizes” acc. to EN15805, Eurovent OM-11-2019 and RS 4/C/001-2019

2. Other ”family” sizes according to EN15805, *Eurovent OM-11-2019 and RS 4/C/001-2019

- Energy class only, as 592x592 certified dimension

Front dimension

Width	Height
490	592
287	592
592	287
490	287
287	287
592	490*
490	490*
592	892*
490	892*
287	892*

CREO Software (Clean Room Energy Optimization)

An overview of Camfil CREO Software

- **Clean room theory and design**
- **Human particle generation calculations**
- **LCC (Life Cycle Cost) calculations**
- **Steady state condition calculations for various designs**
- **Air handling system design specific to the selection of air filters**
- **Latest clean room standards**
- **Cleanliness Classification Report**
- **Total Cost of Ownership Reports**
- **Specification Generator**

Clean Room Classification Report with Steady State calculation. Clean rooms play a vital role in multiple industries, supporting product innovation and the latest developments in cutting-edge technologies. They are also extremely challenging to design, with very high demands for **air cleanliness** and an increasing demand from owners and operators to **reduce escalating energy costs**. As the air cleanliness level is dependent on various factors - the room's supply air, **contamination sources**, and the **design** of the **ventilation system - sophisticated computer-aided analysis** is often better suited to estimate cleanliness, and ensure that users end up with the facilities their application requires.

Clean Room Classification Report with Steady State calculation

Camfil, the world's leading provider of air filters is widely recognized as the leading clean air solutions supplier globally. In another industry first, they have released this **new software** to support end users and designers to optimize air filtration selection for the most sustainable clean rooms:

Output summary

Key features of CREO

CREO software features a unique up-to-date simulation engine based on clean-room theory and design. Users calculate **human particle generation**, perform **calculations** of **steady-state conditions** for different designs, and select the appropriate air handling system design and **air filters**. As reference, CREO also contains the **latest clean room standards** for the life sciences and microelectronic industries, including comparisons between ASHRAE and ISO 16890.

CREO is a very quick and accurate tool for designers to select the required filters. Comparison up to three different solutions can be obtained with just a few inputs. The end result is customized clean room application that also allows the user to calculate the life cycle cost and cleanliness class for different clean room configurations and optimize their energy consumption.

Outputs, in standard file format, from CREO are:

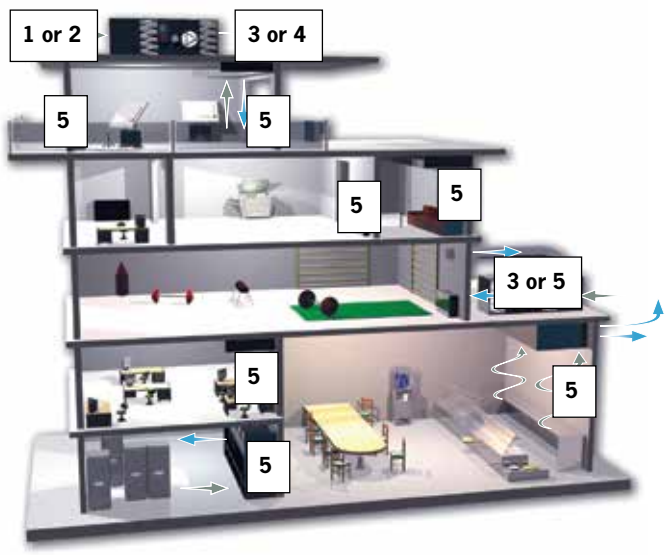
- **TCO Executive Summary**
- **Steady State Calculation Report**
- **Complete and Detailed TCO Calculation Report for all System Components**
- **Extensive Engineering Specifications**

For further information and software simulation, contact your nearest Camfil office or representative.

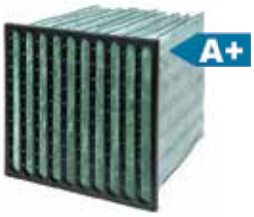
Public buildings

Camfil ventilation filters prevent airborne particles from reducing air flow volumes in HVAC systems. During their lifetime, these filters keep air-handling systems clean so they can perform in accordance with design parameters.

These same filters also help safeguard people's wellbeing and health. Camfil's comfort air filters are commonly used in for example office buildings, schools, conference centres, shopping malls.



These recommendations are based upon existing criterion as published by cognizant authorities, or best practice, based upon published data. For your specific application, contact Camfil for a detailed solution for your needs.



1. Hi-Flo XLT

2. Opakfil ES

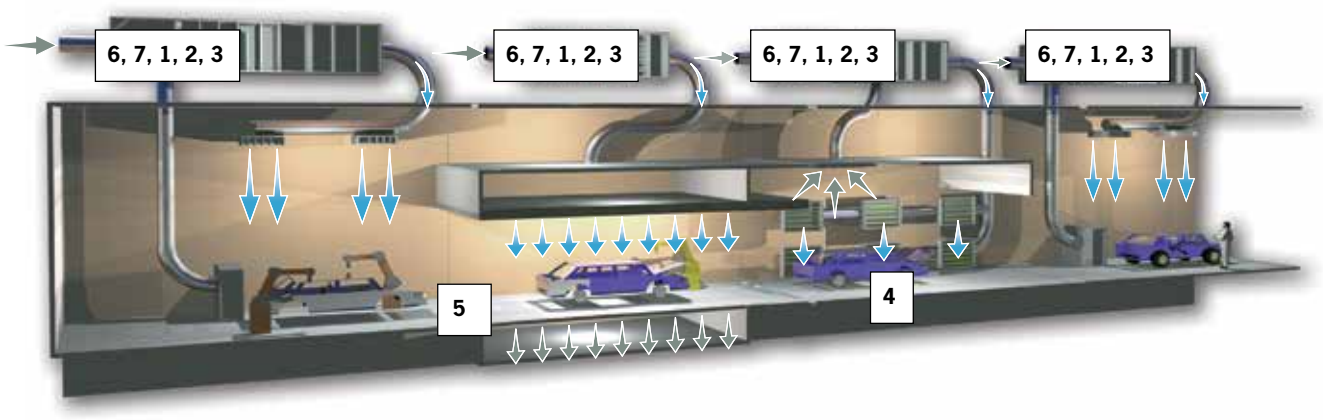
3. CityCarb

4. City-Flo

5. Ecopleat

Automotive

Few industrial applications demand such a clean working environment as paint facilities. Paint spraying facilities require a constant supply of fresh air for hygiene and safety reasons. We currently provide clean air and services to many major automotive plants throughout the world. We provide the best possible cost effective clean air solutions, customized and performance-optimized to meet your demands. Supplied and delivered exactly according to your needs – with Camfil.



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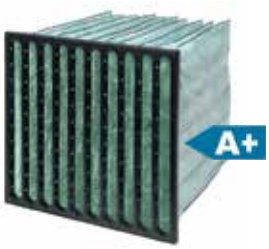


1. Hi-Flo XLT

2. S-Flo

3. Opakfil ES

4. Airopac HT/Panolair HT

5. CDM-600

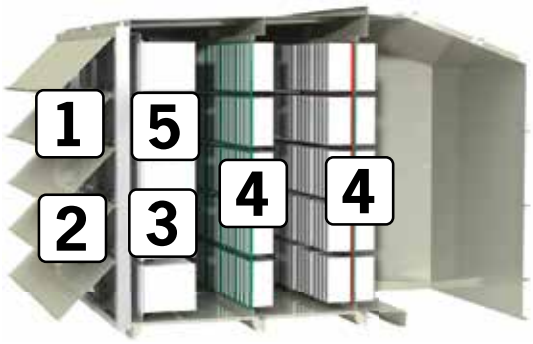
6. 30/30

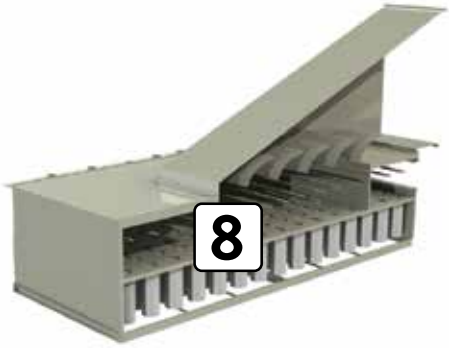
7. Hi-Cap

Power systems

Clean air is vital to all combustion processes. The prime function of an inlet filter system is to protect the gas turbine from pollutants in the air, as particles entering can cause costly damages like erosion, corrosion and fouling. Erosion is a permanent degradation, mainly caused by coarse particles, while corrosion is caused by salt in combination with sulphur, and high temperatures. Smaller particles cause fouling of turbine blades, and thus affecting performance negatively. A secondary effect is an increase in temperatures, as heat transfer effectiveness is reduced, and ultimately the life of the hot section. Effective capture of particulate and airborne salt is therefore of vital importance for long and efficient operation. If not removed by the inlet system, particles will force operators to more frequently water wash the compressor, either by unnecessary on-line washing or during costly shut downs.

It is also important to understand the complexity of differentiating air filters. Most air filters remain in a system for months or even years. During this time, the filter will experience several environmental variations like changes in temperature, humidity, airflow velocity and particle load. To prevent this, and make sure our filters withstand the severe real life conditions once in operation; all GT filters are being developed and tested both at our own brand new Tech center, or at a third party company. For your best choice and solution, please contact your local Camfil-office for consultation, recommendation and calculation.





These are general recommendations for gas turbine air inlet systems. For consultation and details, please contact your nearest Camfil office.

1. CamVane 100

2. CamClose

3. Cam-Flo XMGT

4. CamGT

5. Cam-Flo GT / CamGuard

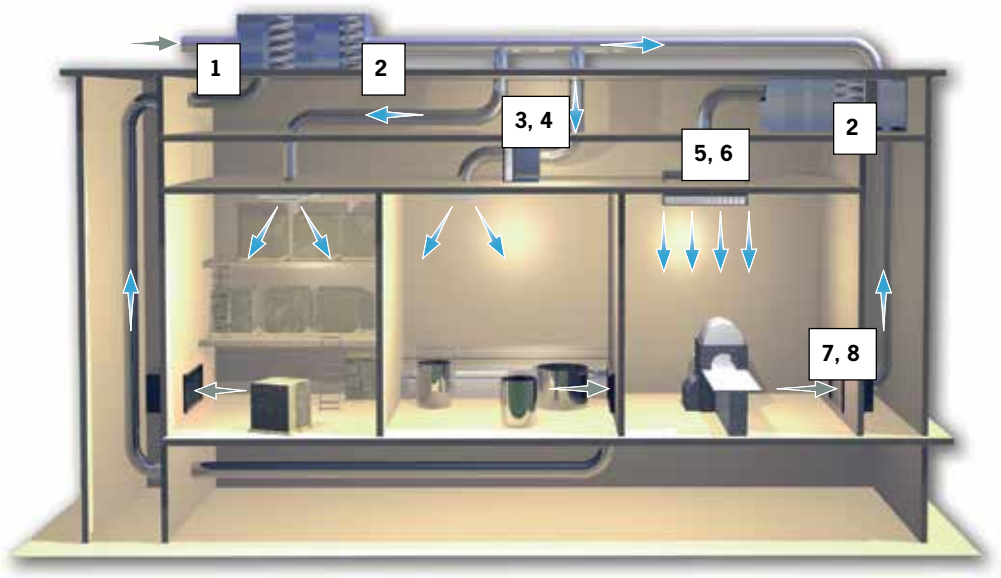
6. CamPulse GTC/GTD

7. CamPulse CamBrane

8. Tenkay

Food and beverage

Beverages protecting human health is a major concern for governments throughout the world. In France, for instance, the National Agency for Food Health and Safety (AFSSAL) can recommend to the authorities that the requisite health policy measures be taken. To prevent the air conditioning system from becoming a microbe nest, temperature and humidity must be controlled and accumulated organic matter removed, as clogged exchangers provide good support for the development of microorganisms. Talk with the experts in Clean air solutions – Camfil.



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1. Opakfil ProSafe F7

2. Opakfil ProSafe F8

3. Absolute VG

4. Slimline RSR

5. CleanSeal AP

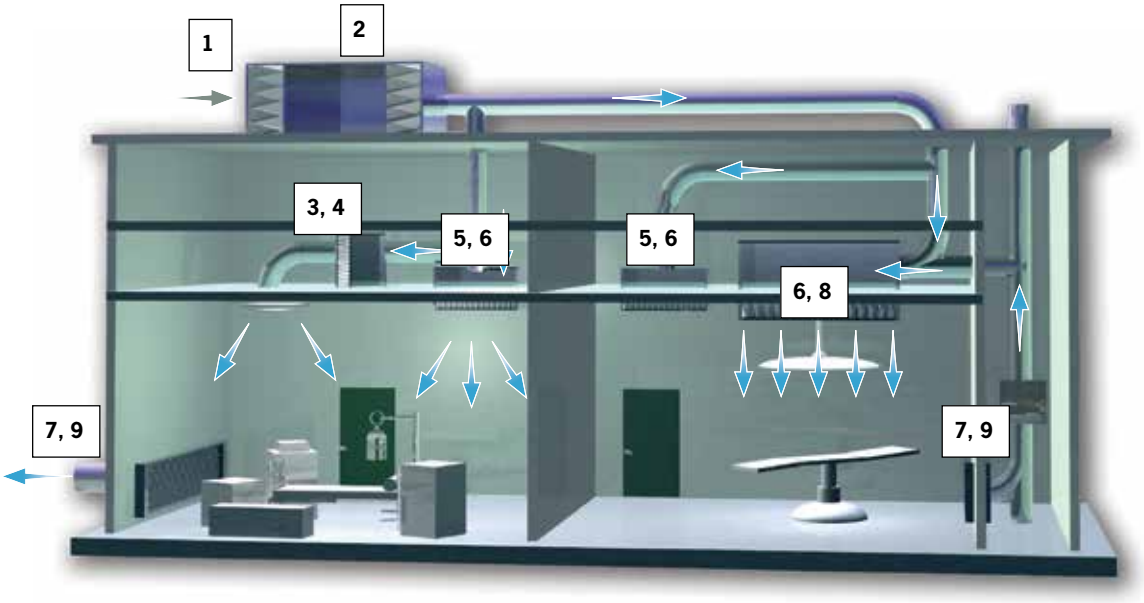
6. Silenthood

7. 30/30

8. Ecopleat

Hospitals

Nowhere is air filtration more important than in health care facilities. Air filters offer excellent protection from airborne diseases in health care facilities, provided they form part of an overall air quality control programme. Camfil superior components include air filters, air filter housings or holding frames, air changes supplied to the conditioned space, temperature and humidity control, outside air introduction and appropriate control of air flow to protect visitors from undue exposure.



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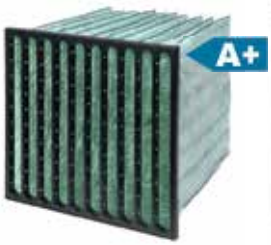


1. Hi-Flo XLT F7/F8

2. Opakfil ES

3. Absolute DG

4. Slimline RSR

5. CleanSeal

6. Megalam MD14

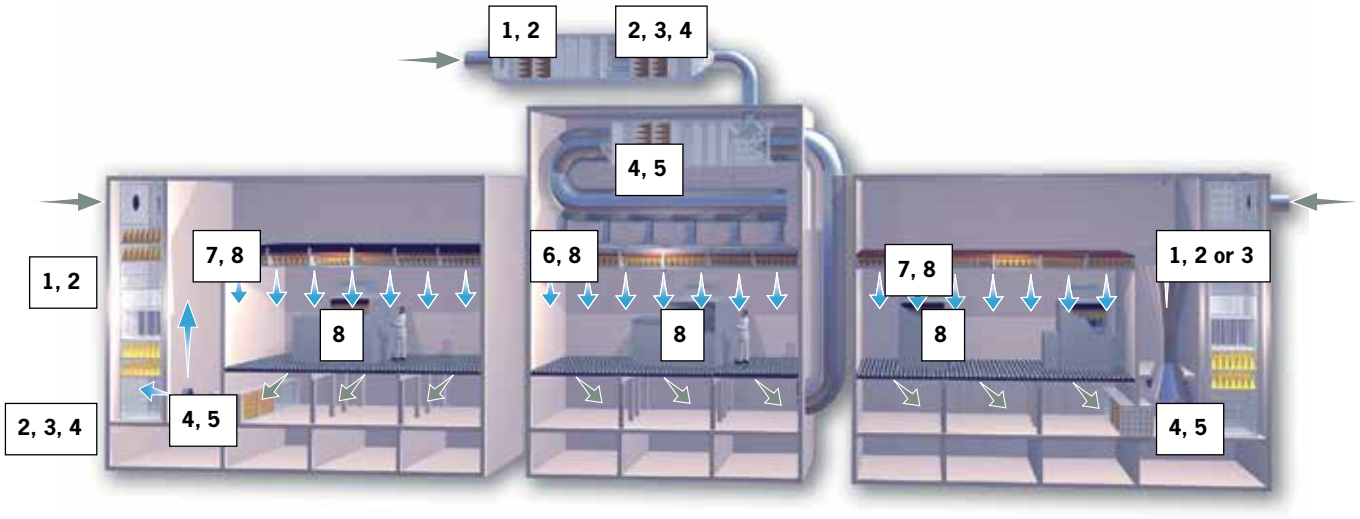
7. Ecopleat

8. CleanSeal AP

9. CamSafe

Microelectronics

Advanced production methods often require very clean air, and in many cases these requirements are certain to increase. Camfil is recognized as the leading supplier of high efficiency filtration products for the microelectronics industry. HEPA/ULPA filters are produced within controlled environments in our ISO 9000-certified plants. Our large production capacity ensures the availability of our products at all times throughout the world.



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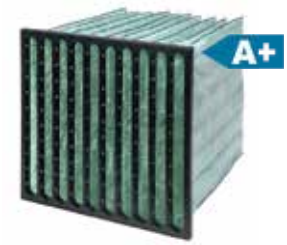


1. Hi-Flo F7/F8

2. Opakfil ES

3. Camcarb

4. Absolute V

5. Gigapleat

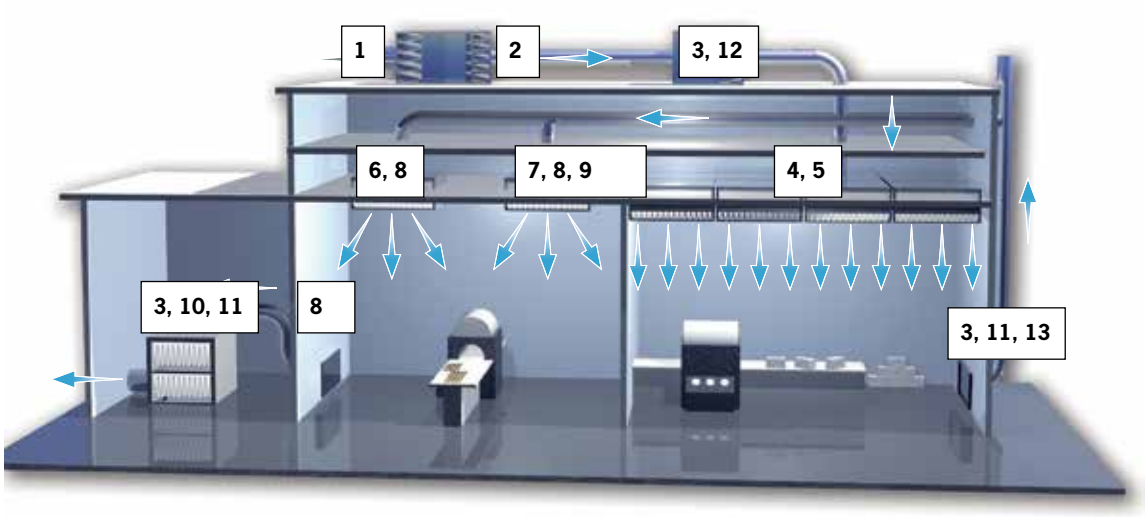
6. Silent Hood

7. Megalam FabSafe

8. Gigapleat NXPP

Life Science

For the past forty years we have been a leading supplier of air filtration products and services to the Bio-Pharma Industry. Many of our clients have multiple facilities located around the world. Camfil is viewed by many of the largest Pharmaceutical manufacturers as a partner and well positioned to support their air filtration demands on a local and global basis.



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1. Hi-Flo ProSafe F7

2. Opakfil ProSafe

3. Absolute VG XL

4. Absolute DG

5. Megalam MX, MG

6. CleanSeal AP

7. Pharmaseal AP

8. Pharmaseal Exhaust AP

9. CleanSeal

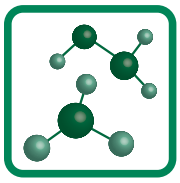
10. Camsafe

11. Airopac/Opakaire

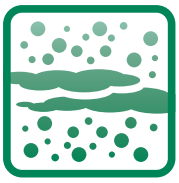
12. FCBL-A Classe C

13. Ecopleat

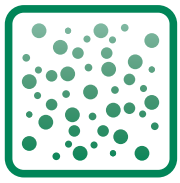
Explanation for symbols



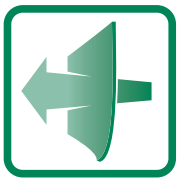
Molecular



2 in 1 Media



High Airflows



Low Pressure Drop

Efficiency Guarantee

Mount with the pockets Vertical

Test Standard EN779:2012

Test Standard EN1822

Test Standard ISO10121

Test Standard ISO16890

LCC Optimized (Lifecycle Optimized)

IAQ Public Buildings

Prosafe

Fabsafe

Haze Free

UL 900

CREO Approved

MagiCad Certified

Ozone 3

Ozone 5

Ozone 6

Ozone 7

Ozone 8

Ozone 9

Allergy friendly Quality Tested

Singapore Green Building Product

A+ Eurovent Energy Classification

MyHIJAU

FM APPROVED

Gasket Position: Gasket_01_10

Eurovent Certification

Gasket Position: Gasket_01_00_10

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Compact Filters (Header Frame)
CitySorb
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Compact Filters (Header Frame)
CitySorb DP
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Durafil ® ESB
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Opakair
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Compact Filters (Box Type)
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Compact Filters (Box Type)
Airopac ® 3GGMHF
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Compact Filters (Box Type)
Riga-Flo
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3CPM Aeropac
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Compact Filters (Box Type)
3HCP8 Aeropac
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Ozone rating

Camfil introduce an ozone removal efficiency classification for molecular filters.

Ozone may be removed from air by molecular filters. To help customers assess the effectiveness of different products, Camfil introduce an ozone removal efficiency rating system. This is a first in the filtration industry.

Ozone

Ozone is a naturally occurring gas that is widely present in our environment at ground level. The ozone molecule is composed of three oxygen atoms, rather than the two atoms of normal oxygen. Ozone is formed by the interaction of other gaseous pollutants such as oxides of nitrogen and volatile organic compounds (VOCs) under the influence of ultraviolet (UV) light. City centre levels of ozone increase during periods of high sunlight. Ozone is classed as an oxidising agent, and has the potential to damage or destroy other molecules.

Ozone and human health

Ozone is an extremely reactive gas and inhalation of ozone can be harmful to human health. The presence of ozone in air may be readily correlated to hospital admission rates relating to respiratory illness. Symptoms of ozone exposure include; throat irritation, aggravation of asthma, decrease in lung function and increased susceptibility to respiratory infection. Ambient ozone levels and high alerts may be available on local government websites in many parts of the world.

Removing ozone from the air

Molecular filters reduce ozone levels in the air through processes of adsorption and decomposition.

Measuring ozone removal efficiency

Camfil use a unique test rig to measure ozone removal efficiency. Temperature and relative humidity conditioned air is blown through full size production filters. Ozone is injected into the airstream and sensitive ozone detectors measure the concentration upstream and downstream of the filter. Filter efficiency is readily calculated from the up-and downstream ozone concentrations.

Camfil are market leaders in the validation of performance of molecular filters. Filters can be challenged with many different gases and vapours. Using temperatures between 5 and 50 deg C and relative humidity values between 30% and 90%, we can determine the performance of our filters under the conditions present in our customer applications.

Table of ozone filtration ratings

Filter Type	Average Ozone Removal Efficiency	Ozone Rating
City-Flo XL	35%	3
CityPleat 200 2"	50%	5
CityPleat 480 4"	65%	6
CitySorb	70%	7
City-Flo	80%	8
CityCarb I	90%	9

(i) All filters tested at 2.5 m/s face velocity (500 fpm);
ii) Ozone challenge = 150 – 450 ppb;
iii) Temperature = 22 deg C;
iv) Relative humidity = 50%)

All the filters use a high quality broad spectrum adsorbent, based on activated carbon to destroy the ozone molecules. Laboratory tests show that filters based on the use of potassium permanganate, which is itself a strong oxidising agent are unlikely to be effective.

Media Rolls

Advantages

- Available for all kind of applications
- Cut to Order
- Different efficiencies available

Application: CM: For use as a prefilter in air conditioning, and spray booth ventilation

CDM: For fine filtration in air conditioning devices and installations, particularly final filtration in Automotive spray booths and drying cabinets.
Media: Synthetic, Polyester
Rec. final pressure drop: 150 Pa
Max Temperature (°C): 80°C - 100°C
Relative Humidity max: 100%
Comment: Fire Rating: DIN53438 class F1 for CM, UL 900 for CDM

ISO16890

Art. No.	Type	Media	ASHRAE 52.2:2017	EN779	ISO16890	Dimensions WxL (m)	Media Thickness (mm)	Weight (g/m²)	Pressure drop (Pa)	Weight (kg)	Velocity (m/s)
5200003	CM-355	Synthetic	MERV 6	G3	Coarse 50%	2,0x 20	10	150	30	6,0	1,0
5200006	CM-360	Synthetic	MERV 7	G4	Coarse 60%	2,0x 20	20	190	45	7,6	1,0
5200013	Camtex CDM-600	Polyester	MERV 10	M5	Coarse 85%	2,0x 20	23-25	600	85	24,5	1,0
5200015	Camtex CDM-600	Polyester	MERV 10	M5	Coarse 85%	1.7x 20	20	600	85	24,5	1.0

Other sizes and cut pads available on request.
Depth: Deviation possible.

Fan Coil Filters

Advantages

- Protection via 2 grids
- Ultra compact
- Supported media·upstream and downstream metal face grids
- Progressively built·up thermal bonded polyester fibre

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Aluminium
Media: Polyester
Max Temperature (°C): 80°C·100°C maximum in continuous services
Comment: Holding Frame: Type 8
Fire rating: DIN 53438 class F1

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
5404501	FCF 24x24x1·G3	MERV 6	G3	Coarse 50%	597x 597x 22	3400/ 115	0.356	1.35
5404511	FCF 24x12x1·G3	MERV 6	G3	Coarse 50%	597x 292x 22	1700/ 144	0.174	1.57
5404001	FCF 24x24x1·G4	MERV 7	G4	Coarse 60%	597x 597x 22	3400/ 140	0.356	1.39
5404002	FCF 24x12x1·G4	MERV 7	G4	Coarse 60%	597x 292x 22	1700/ 190	0.174	1.29

Media Holding Frame (MHF)

Advantages

- Suitable for high humidity conditions
- Replaceble filter media
- Progressively built-up thermal bonded polyester fibre

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Anodized aluminium
Media: Polyester
Max Temperature (°C): 80°C - 100°C maximum in continuous service
Installation Options: Front and side access housings and frames are available, Type 8 and FC Housings
Comment: Fire Rating: DIN 53438 class F1

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
5402501	MHF-24/24/2-G3	MERV 6	G3	Coarse 50%	594x 594x 46	3400/ 100	0.57	1.17
5402502	MHF-12/24/2-G3	MERV 6	G3	Coarse 50%	289x 594x 46	1700/ 150	0.30	1.52
5402001	MHF-24/24/2-G4	MERV 7	G4	Coarse 60%	594x 594x 46	3400/ 110	0.57	1.69
5402002	MHF-12/24/2-G4	MERV 7	G4	Coarse 60%	289x 594x 46	1700/ 160	0.30	1.18

Hi-Cap ®

Advantages

- Low initial pressure drop
- Flat pressure drop curve
- Comprehensive range of standard sizes
- Innovative pocket design for optimum air distribution
- Conical pockets

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Galvanised steel
Media: Synthetic
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 50 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C max in continuous service
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available, Type 8 and FC Housings
Comment: Fire rating: DIN 53438 class F1

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)
3202009	HF 90/35- 592*592-6*580-66	G4	Coarse 60%	592x 592x 580	3400/ 30	6	4,2	2,6
3202033	HF 90/35- 490*592-5.580-66	G4	Coarse 60%	490x 592x 580	2800/ 30	5	3,5	2,2
3202016	HF 90/35-287*592-3.580-36	G4	Coarse 60%	287x 592x 580	1700/ 30	3	2,0	1,5
3200005	HF 90/35-66	G4	Coarse 60%	592x 592x 360	3400/ 40	6	2,6	2,2
3200006	HF 90/35-56	G4	Coarse 60%	490x 592x 360	2800/ 40	5	2,2	1,9
3200007	HF 90/35-36	G4	Coarse 60%	287x 592x 360	1700/ 40	3	1,3	1,3
3100008	HF 90/35-55	G4	Coarse 60%	490x 490x 360	2334/ 50	5	1.8	1.7

Other dimensions are available on request - All dimensions are nominal

Hi-Cap ProSafe

Advantages

- ProSafe certified for Food Beverage, Life Science or close to product applications
- Chemically resistant to decontamination, inactivation and cleaning agent
- Microbial inert components acc. to ISO 846
- Compliant to VDI 6022
- Free of bisphenol-A, phthalate and formaldehyde
- Tested for food safety acc. to EC 1935:2004
- Manufactured and packed in a controlled environment
- Packaging suitable for cleanroom unpacking

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Plastic
Media: Synthetic
Sealant: Polyurethane
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 50 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available
Comment: Packing: Hygienic packing in plastic bag. Outer packing: Environmental friendly cardboard box, easy to carry

Food and Beverage or Life-Science activities have set new standards in product quality and therefore require specific characteristics regarding process definition.
Camfil, as the leader in clean air solutions and air filtration, has developed the complete ProSafe range of products designed for the most demanding processes, including safety, traceability and audits requirement.

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)
3204018-P	Hi-Cap ProSafe-G4-592x592-6x520	G4	Coarse 60%	592x 592x 520	3400/ 30	6	3,7	1,2
3204019-P	Hi-Cap ProSafe-G4-490x592-5x520	G4	Coarse 60%	490x 592x 520	2800/ 30	5	3,0	1
3204020-P	Hi-Cap ProSafe-G4-287x592-3x520	G4	Coarse 60%	287x 592x 520	1700/ 30	3	1,8	0,7
3204021-P	Hi-Cap ProSafe-G4-592x592-6x370	G4	Coarse 60%	592x 592x 370	3400/ 35	6	2,6	1
3204022-P	Hi-Cap ProSafe-G4-490x592-5x370	G4	Coarse 60%	490x 592x 370	2800/ 35	5	2,2	0,9
3204023-P	Hi-Cap ProSafe-G4-287x592-3x370	G4	Coarse 60%	287x 592x 370	1700/ 35	3	1,3	0,6

Other dimensions are available on request - All dimensions are nominal
Certification and test results available online

Hi-Cap ® XLS

Advantages

- Low initial pressure drop
- Flat pressure drop curve
- Comprehensive range of standard sizes
- Innovative pocket design for optimum air distribution
- Conical pockets

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Plastic moulded
Media: Synthetic
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 50 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available, Type 8 and FC Housings.

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)
3204001	HF XLS 90/35-66	G4	Coarse 60%	592x 592x 360	3400/ 50	6	2,6	1,7
3204003	HF XLS 90/35-36	G4	Coarse 60%	287x 592x 360	1700/ 50	3	1,3	1,3
3204002	HF XLS 90/35-56	G4	Coarse 60%	490x 592x 360	2800/ 50	5	2,2	1,6

Other dimensions are available on request - All dimensions are nominal

Hi-Flo XLT

Advantages

- Lowest energy consumption and initial pressure drop
- Extended operating life with the best total cost of ownership (TCO)
- Lowest labour cost thanks to less frequent filter changes
- Conical and tapered pocket shape for improved air flow
- Fully incinerable with the plastic frame

Application: Air conditioning applications and as pre filters for clean rooms
Frame: Plastic moulded
Media: Glass fiber
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available

Art. No.	Type	ASHRAE 52.2:2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)	Energy consumption	Energy class
3146017	6/640	MERV A 11A	M6	ePM2,5 50%	592x 592x 640	3400/ 55	10	7,5	2,3	748	A
3146018	6/640	MERV A 11A	M6	ePM2,5 50%	490x 592x 640	2800/ 55	8	6	1,6		A
3146019	6/640	MERV A 11A	M6	ePM2,5 50%	287x 592x 640	1700/ 55	5	3,7	1,4		A
3146001	6/520	MERV A 11A	M6	ePM2,5 50%	592x 592x 520	3400/ 65	10	6,1	2,2	929	B
3146002	6/520	MERV A 11A	M6	ePM2,5 50%	490x 592x 520	2800/ 65	8	4,9	1,4		B
3146003	6/520	MERV A 11A	M6	ePM2,5 50%	287x 592x 520	1700/ 65	5	3	1,3		B
3146122	7/670	MERV A 13A	F7	ePM1 60%	592x 592x 670	3400/ 65	10	7,9	2,3	838	A+
3146123	7/670	MERV A 13A	F7	ePM1 60%	490x 592x 670	2800/ 65	8	6,3	1,6		A+
3146124	7/670	MERV A 13A	F7	ePM1 60%	287x 592x 670	1700/ 65	5	3,8	1,4		A+
3146125	7/640	MERV A 13A	F7	ePM1 60%	592x 592x 640	3400/ 70	10	7,5	2,3	918	A
3146126	7/640	MERV A 13A	F7	ePM1 60%	490x 592x 640	2800/ 70	8	6	1,6		A
3146127	7/640	MERV A 13A	F7	ePM1 60%	287x 592x 640	1700/ 70	5	3,7	1,4		A
3146101	7/520	MERV A 13A	F7	ePM1 60%	592x 592x 520	3400/ 75	10	6,1	2,2	1031	B
3146102	7/520	MERV A 13A	F7	ePM1 60%	490x 592x 520	2800/ 75	8	4,9	1,4		B
3146103	7/520	MERV A 13A	F7	ePM1 60%	287x 592x 520	1700/ 75	5	3	1,3		B
3146207	8/640	MERV A 14A	F8	ePM1 75%	592x 592x 640	3400/130	10	7,5	2,3	Eurovent not applicable	
3146208	8/640	MERV A 14A	F8	ePM1 75%	490x 592x 640	2800/130	8	6,0	1,6		
3146209	8/640	MERV A 14A	F8	ePM1 75%	287x 592x 640	1700/130	5	3,7	1,4		
3146210	8/520	MERV A 14A	F8	ePM1 75%	592x 592x 520	3400/155	10	6,1	2,2		
3146202	8/520	MERV A 14A	F8	ePM1 75%	490x 592x 520	2800/155	8	4,9	1,4		
3146203	8/520	MERV A 14A	F8	ePM1 75%	287x 592x 520	1700/155	5	3,0	1,3		
3146314	9/640	MERV A 15A	F9	ePM1 85%	592x 592x 640	3400/ 115	10	7,5	1,6	1474	C
3146315	9/640	MERV A 15A	F9	ePM1 85%	490x 592x 640	2800/ 115	8	6,3	1,6		C
3146316	9/640	MERV A 15A	F9	ePM1 85%	287x 592x 640	1700/ 115	5	3,7	1,4		C
3146301	9/520	MERV A 15A	F9	ePM1 85%	592x 592x 520	3400/ 165	10	6,1	2,2	2091	D
3146302	9/520	MERV A 15A	F9	ePM1 85%	490x 592x 520	2800/ 165	8	4,9	1,4		D
3146303	9/520	MERV A 15A	F9	ePM1 85%	287x 592x 520	1700/ 165	5	3	1,3		D

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019

Hi-Flo XLS

Advantages

- Low initial pressure drop
- Flat pressure drop curve
- Comprehensive range of standard sizes
- Innovative pocket design for optimum air distribution
- Conical pockets
- Fully incinerable with the plastic frame

Application: Air conditioning applications and as pre filters for clean rooms
Frame: Plastic moulded
Media: Glass fiber
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available

Art. No.	Type	ASHRAE 52.2:2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)	Energy consumption	Energy class
3146418	5/520	MERV A 10A	M5	ePM10 60%	592x 592x 520	3400/ 50	6	3,7	0,9	793	C
3146419	5/520	MERV A 10A	M5	ePM10 60%	490x 592x 520	2800/ 50	5	3	0,8		C
3146420	5/520	MERV A 10A	M5	ePM10 60%	287x 592x 520	1700/ 50	3	1,8	0,6		C
3146415	5/640	MERV A 10A	M5	ePM10 60%	592x 592x 640	3400/ 45	6	4,5	1	770	C
3146416	5/640	MERV A 10A	M5	ePM10 60%	490x 592x 640	2800/ 45	5	3,7	0,9		C
3146417	5/640	MERV A 10A	M5	ePM10 60%	287x 592x 640	1700/ 45	3	2,2	0,6		C
3146421	5/370	MERV A 10A	M5	ePM10 60%	592x 592x 370	3400/ 60	6	2,6	0,8	>1200	E
3146422	5/370	MERV A 10A	M5	ePM10 60%	490x 592x 370	2800/ 60	5	2,2	0,7		E
3146423	5/370	MERV A 10A	M5	ePM10 60%	287x 592x 370	1700/ 60	3	1,3	0,5		E
3146020	6/640	MERV A 11A	M6	ePM2,5 50%	592x 592x 640	3400/ 70	6	4,5	1,2	1212	C
3146021	6/640	MERV A 11A	M6	ePM2,5 50%	490x 592x 640	2800/ 70	5	3,7	1		C
3146022	6/640	MERV A 11A	M6	ePM2,5 50%	287x 592x 640	1700/ 70	3	2,2	0,7		C
3146023	6/520	MERV A 11A	M6	ePM2,5 50%	592x 592x 520	3400/ 80	6	3,7	1,1	1552	D
3146024	6/520	MERV A 11A	M6	ePM2,5 50%	490x 592x 520	2800/ 80	5	3	0,9		D
3146025	6/520	MERV A 11A	M6	ePM2,5 50%	287x 592x 520	1700/ 80	3	1,8	0,6		D
3146026	6/370	MERV A 11A	M6	ePM2,5 50%	592x 592x 370	3400/ 120	6	2,6	0,9	>1900	E
3146027	6/370	MERV A 11A	M6	ePM2,5 50%	490x 592x 370	2800/ 120	5	2,2	0,8		E
3146028	6/370	MERV A 11A	M6	ePM2,5 50%	287x 592x 370	1700/ 120	3	1,3	0,6		E
3146128	7/640	MERV A 13A	F7	ePM1 60%	592x 592x 640	3400/ 85	6	4,5	0,9	1371	C
3146129	7/640	MERV A 13A	F7	ePM1 60%	490x 592x 640	2800/ 85	5	3,7	0,8		C
3146130	7/640	MERV A 13A	F7	ePM1 60%	287x 592x 640	1700/ 85	3	2,2	0,6		C
3146131	7/520	MERV A 13A	F7	ePM1 60%	592x 592x 520	3400/ 115	6	3,7	0,9	1948	D
3146132	7/520	MERV A 13A	F7	ePM1 60%	490x 592x 520	2800/ 115	5	3	0,8		D
3146133	7/520	MERV A 13A	F7	ePM1 60%	287x 592x 520	1700/ 115	3	1,8	0,5		D
3146134	7/370	MERV A 13A	F7	ePM1 60%	592x 592x 370	3400/ 165	6	2,6	0,9	>2050	E
3146135	7/370	MERV A 13A	F7	ePM1 60%	490x 592x 370	2800/ 165	5	2,2	0,7		E
3146136	7/370	MERV A 13A	F7	ePM1 60%	287x 592x 370	1700/ 165	3	1,3	0,5		E
3146318	9/640	MERV A 15A	F9	ePM1 85%	490x 592x 640	2800/ 200	5	3,7	0,9		E
3146319	9/640	MERV A 15A	F9	ePM1 85%	287x 592x 640	1700/ 200	3	2,2	0,6		E
3146320	9/520	MERV A 15A	F9	ePM1 85%	592x 592x 520	3400/ 230	6	3,7	0,9	>2400	E
3146321	9/520	MERV A 15A	F9	ePM1 85%	490x 592x 520	2800/ 230	5	3	0,8		E
3146322	9/520	MERV A 15A	F9	ePM1 85%	287x 592x 520	1700/ 230	3	1,8	0,5		E
3146317	9/640	MERV A 15A	F9	ePM1 85%	592x 592x 640	3400/ 200	6	4,5	1	>2400	E

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019

Hi-Flo M, P, TM

Advantages

- Lowest energy consumption and initial pressure drop
- Extended operating life with the best total cost of ownership (TCO)
- Lowest labour cost thanks to less frequent filter changes
- Conical and tapered pocket shape for improved air flow

Application: Air conditioning applications
Frame: Galvanised steel
Media: Glass fiber
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available
Comment: Hi-Flo M : SGBP is applicable for F9 class (√ GOOD) only
Fire rating: UL 900

Art. No.	Type	ASHRAE 52.2:2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)	Energy consumption	Energy class
3140001	M6	MERV A 11A	M6	ePM2,5 50%	592x 592x 640	3400/ 55	12	9,1	3,3	748	A
3140002	N6	MERV A 11A	M6	ePM2,5 50%	490x 592x 640	2800/ 55	10	7,6	3		A
3140003	O6	MERV A 11A	M6	ePM2,5 50%	287x 592x 640	1700/ 55	6	4,6	2		A
3140009	P6	MERV A 11A	M6	ePM2,5 50%	592x 592x 520	3400/ 65	10	6,2	2,9	992	C
3140010	Q6	MERV A 11A	M6	ePM2,5 50%	490x 592x 520	2800/ 65	8	5,1	2,4		C
3140011	R6	MERV A 11A	M6	ePM2,5 50%	287x 592x 520	1700/ 65	5	3,1	1,5		C
3140025	TM6	MERV A 11A	M6	ePM2,5 50%	592x 592x 370	3400/ 70	12	5,5	2,55	1280	C
3140026	TN6	MERV A 11A	M6	ePM2,5 50%	490x 592x 370	2800/ 70	10	4,5	2,15		C
3140027	TO6	MERV A 11A	M6	ePM2,5 50%	287x 592x 370	1700/ 70	6	2,7	1,4		C
3140029	M7	MERV A 13A1	F7	ePM1 60%	592x 592x 640	3400/ 60	12	9,1	3,3	838	A+
3140030	N7	MERV A 13A	F7	ePM1 60%	490x 592x 640	2800/ 60	10	7,6	3		A+
3140031	O7	MERV A 13A	F7	ePM1 60%	287x 592x 640	1700/ 60	6	4,6	2		A+
3140037	P7	MERV A 13A	F7	ePM1 60%	592x 592x 520	3400/ 75	10	6,2	2,6	895	A
3140038	Q7	MERV A 13A	F7	ePM1 60%	490x 592x 520	2800/ 75	8	5,1	2,3		A
3140039	R7	MERV A 13A	F7	ePM1 60%	287x 592x 520	1700/ 75	5	3,1	1,6		A
3140053	TM7	MERV A 13A	F7	ePM1 60%	592x 592x 370	3400/ 95	12	5,2	2,3	1427	C
3140054	TN7	MERV A 13A	F7	ePM1 60%	490x 592x 370	2800/ 95	10	4,3	2,05		C
3140055	TO7	MERV A 13A	F7	ePM1 60%	287x 592x 370	1700/ 95	6	2,6	1,35		C
3140057	M8	MERV A 14A	F8	ePM1 70%	592x 592x 640	3400/ 130	12	9.1	2.9		
3140058	N8	MERV A 14A	F8	ePM1 70%	490x 592x 640	2800/ 130	10	7.6	2.5		
3140059	O8	MERV A 14A	F8	ePM1 70%	287x 592x 640	1700/ 130	6	4.6	1.7		
3140065	P8	MERV A 14A	F8	ePM1 70%	592x 592x 520	3400/ 160	10	6.5	2.41		
3140066	Q8	MERV A 14A	F8	ePM1 70%	490x 592x 520	2800/ 160	8	5.2	2.03		
3140067	R8	MERV A 14A	F8	ePM1 70%	287x 592x 520	1700/ 160	5	3.3	1.43		
3140081	TM8	MERV A 14A	F8	ePM1 70%	592x 592x 370	3400/ 205	12	5.5	2.45		
3140082	TN8	MERV A 14A	F8	ePM1 70%	490x 592x 370	2800/ 205	10	4.5	2.12		
3140083	TO8	MERV A 14A	F8	ePM1 70%	287x 592x 370	1700/ 205	6	2.7	1.45		
3145006	M9	MERV A 15A	F9	ePM1 85%	592x 592x 640	3400/ 125	12	9,1	3,3	1520	C
3145009	N9	MERV A 15A	F9	ePM1 85%	490x 592x 640	2800/ 125	10	7,6	3		C
3145007	O9	MERV A 15A	F9	ePM1 85%	287x 592x 640	1700/ 125	6	4,6	2		C
3145008	P9	MERV A 15A	F9	ePM1 85%	592x 592x 520	3400/ 155	10	6,2	2,5	1880	D
3145010	Q9	MERV A 15A	F9	ePM1 85%	490x 592x 520	2800/ 155	8	5,1	2,4		D
3145011	R9	MERV A 15A	F9	ePM1 85%	287x 592x 520	1700/ 155	5	3,1	1,5		D

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019
SGBC is only applicable for F8 and F9 class filters

Hi-Flo A, UF

Advantages

- Low initial pressure drop
- Flat pressure drop curve
- Comprehensive range of standard sizes
- Innovative pocket design for optimum air distribution
- Conical pockets
- Robust metal header frame

Application: Comfort air conditioning applications, pre filter applications
Frame: Galvanised steel
Media: Glass fiber
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available
Comment: Fire rating: UL 900

Art. No.	Type	ASHRAE 52.2:017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)	Energy consumption	Energy class
3140085	A5	MERV A 10A	M5	ePM10 60%	592x 592x 600	3400/ 45	6	4,5	1,9	748	C
3140086	B5	MERV A 10A	M5	ePM10 60%	490x 592x 600	2800/ 45	5	3,6	1,6		C
3140087	C5	MERV A 10A	M5	ePM10 60%	287x 592x 600	1700/ 45	3	2,3	1,1		C
3140017	A6	MERV A 11A	M6	ePM2,5 50%	592x 592x 600	3400/ 70	6	4,5	1,9	1189	C
3140018	B6	MERV A 11A	M6	ePM2,5 50%	490x 592x 600	2800/ 70	5	3,6	1,6		C
3140019	C6	MERV A 11A	M6	ePM2,5 50%	287x 592x 600	1700/ 70	3	2,3	1,1		C
3100013	UF6	MERV A 11A	M6	ePM2,5 50%	592x 592x 600	3400/ 60	8	6	2,9	872	B
3100014	UG6	MERV A 11A	M6	ePM2,5 50%	490x 592x 600	2800/ 60	6	4,5	2,4		B
3100015	UH6	MERV A 1A	M6	ePM2,5 50%	287x 592x 600	1700/ 60	4	3	1,5		B
3140016	3UF6	MERV A 11A	M6	ePM2,5 50%	490x 490x 600	2334/ 70	6	4.1	1.65		B
3140045	A7	MERV A 13A	F7	ePM1 60%	592x 592x 600	3400/ 95	6	4,5	1,9	1337	C
3140046	B7	MERV A 13A	F7	ePM1 60%	490x 592x 600	2800/ 95	5	3,6	1,6		C
3140047	C7	MERV A 13A	F7	ePM1 60%	287x 592x 600	1700/ 95	3	2,3	1,1		C
3100041	UF7	MERV A 13A	F7	ePM1 60%	592x 592x 600	3400/ 75	8	6	2,9	940	A
3100042	UG7	MERV A 13A	F7	ePM1 60%	490x 592x 600	2800/ 75	6	4,5	2,4		A
3100043	UH7	MERV A 13A	F7	ePM1 60%	287x 592x 600	1700/ 75	4	3	1,5		A
3140044	3UF7	MERV A 13A	F7	ePM1 70%	490x 490x 600	2334/ 115	6	4.1	1.65		B
3140073	A8	MERV A 14A	F8	ePM1 70%	592x 592x 600	3400/ 160	6	6.2	2.4		
3140074	B8	MERV A 1A	F8	ePM1 70%	490x 592x 600	2800/ 160	5	5.1	2.03		
3140075	C8	MERV A 14A	F8	ePM1 70%	287x 592x 600	1700/ 160	3	3.1	1.4		
3140069	UF8	MERV A 14A	F8	ePM1 70%	592x 592x 600	3400/ 160	8	6	2.19		
3140070	UG8	MERV A 14A	F8	ePM1 70%	490x 592x 600	2800/ 160	6	4.5	1.8		
3140071	UH8	MERV A 14A	F8	ePM1 70%	287x 592x 600	1700/ 160	4	3	1.32		
3140072	3UF8	MERV A 14A	F8	ePM1 70%	490x 490x 600	2334/ 160	6	4.1	1.7		
3105012	UF9	MERV A 15A	F9	ePM1 85%	592x 592x 600	3400/ 160	8	6	2,9	1956	D
3105013	UG9	MERV A 15A	F9	ePM1 85%	490x 592x 600	2800/ 160	6	4,5	2,4		D
3105014	UH9	MERV A 15A	F9	ePM1 85%	287x 592x 600	1700/ 160	4	3	1,5		D
3145015	3UF9	MERV A 15A	F9	ePM1 85%	490x 490x 600	2334/ 160	6	3.6	1.7		D

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019

City-Flo XL

Advantages

- "2-in-1" filtration solution; particulate and molecular
- Removal of solid and gaseous contaminants in one filter stage
- Ideal for filtering low concentrations of most external and internal source pollutants
- Can be used to upgrade existing installations
- Incinerable plastic header frame

Application: Particulate and molecular filter
Frame: Plastic moulded
Media: Glass fiber/Activated carbon
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 50°C
Relative Humidity max: 70%
Installation Options: Front and side access housings and frames are available

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)
612754	7/640	F7	ePM1 60%	592x 592x 640	3400/ 85	10	7,5	3,5
613289	7/640	F7	ePM1 60%	490x 592x 640	2800/ 85	8	6	2,8
612924	7/640	F7	ePM1 60%	287x 592x 640	1700/ 85	5	3,7	1,8
613293	7/640	F7	ePM1 60%	592x 490x 640	2800/ 85	10	6,2	2,9
613291	7/640	F7	ePM1 60%	490x 490x 640	2330/ 85	8	5	2,4
613295	7/640	F7	ePM1 60%	592x 287x 640	1700/ 85	10	3,7	1,8
613297	7/640	F7	ePM1 60%	287x 287x 640	800/ 85	5	1,9	0,9
612753	7/520	F7	ePM1 60%	592x 592x 520	3400/ 110	10	6,1	3,1
613290	7/520	F7	ePM1 60%	490x 592x 520	2800/ 110	8	4,9	2,5
612923	7/520	F7	ePM1 60%	287x 592x 520	1700/ 110	5	3	1,6
613294	7/520	F7	ePM1 60%	592x 490x 520	2800/ 110	10	6,2	3,1
613292	7/520	F7	ePM1 60%	490x 490x 520	2330/ 110	8	4	2
613296	7/520	F7	ePM1 60%	592x 287x 520	1700/ 110	10	3	1,6
613298	7/520	F7	ePM1 60%	287x 287x 520	800/ 110	5	1,5	0,8

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019

City-Flo

Advantages

- "2-in-1" filtration solution; particulate and molecular
- Removal of solid and gaseous contaminants in one filter stage
- Ideal for filtering moderate concentrations of most external and internal source pollutants
- Can be used to upgrade existing installations
- Robust metal header frame

Application: Particle and odour removal in Hospitals, Offices, Airports etc
Frame: Galvanised steel
Media: Glass fiber/Activated carbon
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 50°C
Relative Humidity max: 70%
Installation Options: Front and side access housings and frames are available

The City-Flo filter utilizes a highly effective broad spectrum carbon media layer to ensure removal of a very wide range of airborne chemicals.
The broad spectrum carbon operates with a Rapid Adsorption Dynamics (RAD) mechanism that is specifically designed to be highly efficient against the multiple chemicals that are typically present in low or moderate concentrations in city-centre buildings or other locations.
City-Flo is a very effective ozone filter with an 80% ozone removal efficiency or Oz8 ozone removal rating according to the unique Camfil system.
The City-Flo filter provides particle filtration in classes F7 or F9 according to EN 779:2012. A high media area ensures high efficiency, long life and low pressure drop.

Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)
HFZS-F7-592/592/534-10-25	F7	ePM1 60%	592x 592x 534	3400/ 140	10	6,2	6
HFZS-F7-490/592/534-8-25	F7	ePM1 60%	490x 592x 534	2800/ 140	8	5	4,6
HFZS-F7-287/592/534-8-25	F7	ePM1 60%	287x 592x 534	1700/ 140	5	3,1	3,5

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019

Basic-Flo

Advantages

- Economy version
- Resilient synthetic filter media
- Optimized filter area with conical filter bags
- Robust metal header frame

Application: Comfort air conditioning applications, prefilter applications
Frame: Galvanised steel
Media: Synthetic
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 90%
Installation Options: Front and side access housings and frames are available

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)	Energy consumption	Energy class
3320001	A5	M5	ePM10 50%	592x 592x 600	3400/ 50	6	4,5	2,4	929	D
3320002	B5	M5	ePM10 50%	490x 592x 600	2800/ 50	5	3,6	2,1		D
3320003	C5	M5	ePM10 50%	287x 592x 600	1700/ 50	3	2,3	1,5		D
3320004	A5/520	M5	ePM10 50%	592x 592x 520	3400/ 55	6	3,7	2	940	D
3320005	B5/520	M5	ePM10 50%	490x 592x 520	2800/ 55	5	3	1,8		D
3320006	C5/520	M5	ePM10 50%	287x 592x 520	1700/ 55	3	1,8	1,2		D
3320007	A5/370	M5	ePM10 50%	592x 592x 370	3400/ 60	6	2,6	1,8	>1100	E
3320008	B5/370	M5	ePM10 50%	490x 592x 370	2800/ 60	5	2,2	1,6		E
3320009	C5/370	M5	ePM10 50%	287x 592x 370	1700/ 60	3	1,3	1,2		E
3320051	A6	M6	ePM10 70%	592x 592x 600	3400/ 60	6	4,5	2,4	>1300	E
3320052	B6	M6	ePM10 70%	490x 592x 600	2800/ 60	5	3,6	2,1		E
3320053	C6	M6	ePM10 70%	287x 592x 600	1700/ 60	3	2,3	1,5		E
3320054	A6/520	M6	ePM10 70%	592x 592x 520	3400/ 65	6	3,7	2	>1300	E
3320055	B6/520	M6	ePM10 70%	490x 592x 520	2800/ 65	5	3	1,8		E
3320056	C6/520	M6	ePM10 70%	287x 592x 520	1700/ 65	3	1,8	1,2		E
3320057	A6/370	M6	ePM10 70%	592x 592x 370	3400/ 85	6	2,6	1,8	>1300	E
3320058	B6/370	M6	ePM10 70%	490x 592x 370	2800/ 85	5	2,2	1,6		E
3320059	C6/370	M6	ePM10 70%	287x 592x 370	1700/ 85	3	1,3	1,2		E
3320101	A7	F7	ePM2,5 70%	592x 592x 600	3400/ 120	6	4,5	2,4	1937	D
3320102	B7	F7	ePM2,5 70%	490x 592x 600	2800/ 120	5	3,6	2,1		D
3320103	C7	F7	ePM2,5 70%	287x 592x 600	1700/ 120	3	2,3	1,5		D
3320104	A7/520	F7	ePM2,5 70%	592x 592x 520	3400/ 135	6	3,7	2	>2000	E
3320105	B7/520	F7	ePM2,5 70%	490x 592x 520	2800/ 135	5	3	1,8		E
3320106	C7/520	F7	ePM2,5 70%	287x 592x 520	1700/ 135	3	1,8	1,2		E
3320107	A7/370	F7	ePM2,5 70%	592x 592x 370	3400/ 185	6	2,6	1,8	>2000	E
3320108	B7/370	F7	ePM2,5 70%	490x 592x 370	2800/ 185	5	2,2	1,6		E
3320109	C7/370	F7	ePM2,5 70%	287x 592x 370	1700/ 185	3	1,3	1,2		E
3320110	UF7	F7	ePM2,5 70%	592x 592x 600	3400/ 110	8	6	2,6	1790	D
3320111	UG7	F7	ePM2,5 70%	490x 592x 600	2800/ 110	6	4,5	2,4		D
3320112	UH7	F7	ePM2,5 70%	287x 592x 600	1700/ 110	4	3	1,5		D
3320113	UF7/520	F7	ePM2,5 70%	592x 592x 520	3400/ 120	8	5,2	2,6	1 971	D
3320114	UG7/520	F7	ePM2,5 70%	490x 592x 520	2800/ 120	6	3,9	2,4		D
3320115	UH7/520	F7	ePM2,5 70%	287x 592x 520	1700/ 120	4	2,5	1,5		D

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)	Energy consumption	Energy class
3320116	UF7/370	F7	ePM2,5 70%	592x 592x 370	3400/ 150	8	3,6	2,4	>2000	E
3320117	UG7/370	F7	ePM2,5 70%	490x 592x 370	2800/ 150	6	2,7	2,1		E
3320118	UH7/370	F7	ePM2,5 70%	287x 592x 370	1700/ 150	4	1,8	1,5		E
3326003	UF8	F8	ePM1 70%	592x 592x 600	3400/ 155	8	6	2,8	2458	E
3326007	UG8	F8	ePM1 70%	490x 592x 600	2800/ 155	6	4.5	2.6		E
3326008	UH8	F8	ePM1 70%	287x 592x 600	1700/ 155	4	3	1.7		E
3326009	UF8/520	F8	ePM1 70%	592x 592x 520	3400/ 170	8	5.2	2.7		E
3326010	UG8/520	F8	ePM1 70%	490x 592x 520	2800/ 170	6	3.9	2.5		E
3326011	UH8/520	F8	ePM1 70%	287x 592x 520	1700/ 170	4	2.5	1.6		E

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019
20mm header frame is availableon request

S-Flo A, P, U

Advantages

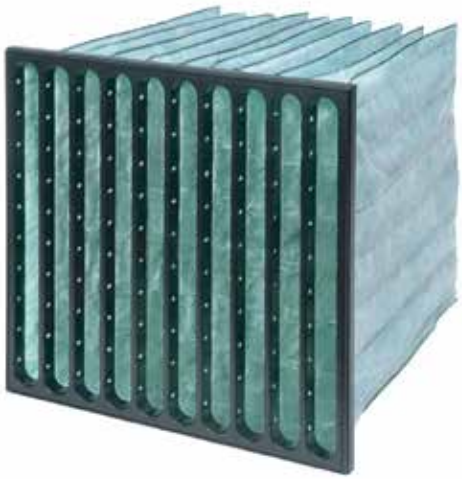
- Extended surface multi-pocket filter
- Comprehensive range of standard sizes
- Unique pocket design
- High efficiency
- Large surface area
- Controlled media spacing (CMS)

Application: Air conditioning applications
Frame: Galvanised steel
Media: Synthetic
Rec. final pressure drop: 450 Pa
Max Temperature (°C): 70 °C maximum in continuous service
Installation Options: Holding frames: Front and side access housings and frames are available, Type 8 and FC Housings
Comment: Fire rating: UL 900

Art. No.	Type	ASHRAE 52.2-2017	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)
3300010	Q6	MERV 11	ePM10 70%	490x 592x 534	2800/ 90	8	5.2	2.44
3300009	P6	MERV 11	ePM10 70%	592x 592x 534	3400/ 90	10	6.5	2.92
3300011	R6	MERV 11	ePM10 70%	287x 592x 534	1700/ 90	5	3.2	1.68
3300033	P7	MERV 13	ePM10 80%	592x 592x 534	3400/ 115	10	6.5	2.92
3300034	Q7	MERV 13	ePM10 80%	490x 592x 534	2800/ 115	8	5.2	2.44
3300035	R7	MERV 13	ePM10 80%	287x 592x 534	1700/ 115	5	3.2	1.68
3300057	P8	MERV 14	ePM10 85%	592x 592x 534	3400/ 135	10	6.5	2.92
3300058	Q8	MERV 14	ePM10 85%	490x 592x 534	2800/ 135	8	5.2	2.44
3300059	R8	MERV 14	ePM10 85%	287x 592x 534	1700/ 135	5	3.2	1.68
3300013	UF6	MERV 11	ePM10 70%	592x 592x 600	3400/ 75	8	6	2.65
3300014	UG6	MERV 11	ePM10 70%	490x 592x 600	2800/ 75	6	4.5	2.14
3300015	UH6	MERV 11	ePM10 70%	287x 592x 600	1700/ 75	4	3	1.54
3300037	UF7	MERV 13	ePM10 80%	592x 592x 600	3400/ 95	8	6	2.65
3300038	UG7	MERV 13	ePM10 80%	490x 592x 600	2800/ 95	6	4.5	2.14
3300039	UH7	MERV 13	ePM10 80%	287x 592x 600	1700/ 95	4	3	1.54
3300061	UF8	MERV 14	ePM10 85%	592x 592x 600	3400/ 110	8	6	2.65
3300062	UG8	MERV 14	ePM10 85%	490x 592x 600	2800/ 110	6	4.5	2.14
3300063	UH8	MERV 14	ePM10 85%	287x 592x 600	1700/ 110	4	3	1.54
3300073	A5	MERV 10	ePM10 60%	592x 592x 600	3400/ 75	6	4.5	2.4
3300074	B5	MERV 10	ePM10 60%	490x 592x 600	2700/ 75	5	3.6	2
3300075	C5	MERV 10	ePM10 60%	287x 592x 600	1700/ 75	3	2.3	1.5
3300017	A6	MERV 11	ePM10 70%	592x 592x 600	3400/ 100	6	4.5	2.4
3300018	B6	MERV 11	ePM10 70%	490x 592x 600	2800/ 100	5	3.6	2
3300019	C6	MERV 11	ePM10 70%	287x 592x 600	1700/ 100	3	2.3	1.5
3300041	A7	MERV 13	ePM10 80%	592x 592x 600	3400/ 110	6	4.5	2.4
3300042	B7	MERV 13	ePM10 80%	490x 592x 600	2800/ 110	5	3.6	2
3300043	C7	MERV 13	ePM10 80%	287x 592x 600	1700/ 110	3	2.3	1.5
3300065	A8	MERV 14	ePM10 85%	592x 592x 600	3400/ 145	6	4.7	2.4
3300066	B8	MERV 14	ePM10 85%	490x 592x 600	2800/ 145	5	3.6	2.0
3300067	C8	MERV 14	ePM10 85%	287x 592x 600	1700/ 145	3	2.3	1.5

20mm header frame is available on request

Hi-Flo ProSafe



Advantages

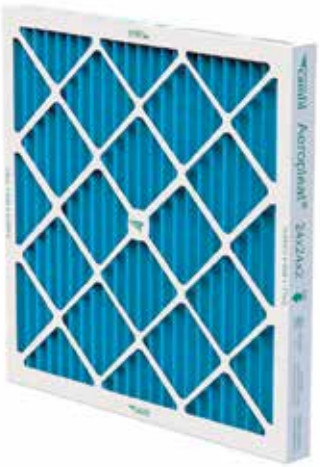
- ProSafe certified for Food Beverage, Life Science or close to product applications
- Chemically resistant to decontamination, inactivation and cleaning agent
- Microbial inert components acc. to ISO 846
- Compliant to VDI 6022
- Free of bisphenol-A, phthalate and formaldehyde
- Tested for food safety acc. to EC 1935:2004
- Manufactured and packed in a controlled environment
- Packaging suitable for cleanroom unpacking

Application: Air conditioning applications and as pre filters for clean rooms
Frame: Plastic
Media: Glass fiber
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)	Energy consumption	Energy class
3146008	6/640	M6	ePM2,5 50%	592x 592x 640	3400/ 55	10	7,5	2,3	748	A
3146009	6/640	M6	ePM2,5 50%	490x 592x 640	2800/ 55	8	6	1.6		A
3146010	6/640	M6	ePM2,5 50%	287x 592x 640	1700/ 55	5	3.7	1.4		A
3146011	6/520	M6	ePM2,5 50%	592x 592x 520	3400/ 60	10	6.1	2.2	929	B
3146012	6/520	M6	ePM2,5 50%	490x 592x 520	2800/ 60	8	4.9	1.4		B
3146013	6/520	M6	ePM2,5 50%	287x 592x 520	1700/ 60	5	3	1.3		B
3146014	6/370	M6	ePM2,5 50%	592x 592x 370	3400/ 70	10	4.3	2	1405	D
3146015	6/370	M6	ePM2,5 50%	490x 592x 370	2800/ 70	8	3.5	1.3		D
3146016	6/370	M6	ePM2,5 50%	287x 592x 370	1700/ 70	5	2.2	1.2		D
3146110	7/670	F7	ePM1 60%	592x 592x 670	3400/ 65	10	7,9	2,3	838	A+
3146111	7/670	F7	ePM1 60%	490x 592x 670	2800/ 65	8	6,3	1,6		A+
3146112	7/670	F7	ePM1 60%	287x 592x 670	1700/ 65	5	3,8	1,4		A+
3146113	7/640	F7	ePM1 60%	592x 592x 640	3400/ 70	10	7,5	2,3	918	A
3146114	7/640	F7	ePM1 60%	490x 592x 640	2800/ 70	8	6	1,6		A
3146115	7/640	F7	ePM1 60%	287x 592x 640	1700/ 70	5	3,7	1,4		A
3146116	7/520	F7	ePM1 60%	592x 592x 520	3400/ 75	10	10	2,2	1031	B
3146117	7/520	F7	ePM1 60%	490x 592x 520	2800/ 75	8	8	1,4		B
3146118	7/520	F7	ePM1 60%	287x 592x 520	1700/ 75	5	3	1,3		B
3146119	7/370	F7	ePM1 60%	592x 592x 370	3400/ 90	10	4,3	2	1643	D
3146120	7/370	F7	ePM1 60%	490x 592x 370	2800/ 90	8	3,5	1,3		D
3146121	7/370	F7	ePM1 60%	287x 592x 370	1700/ 90	5	2,2	1,2		D
3146307	9/640	F9	ePM1 85%	592x 592x 640	3400/ 115	10	7,5	2,3	1474	C
3146308	9/640	F9	ePM1 85%	490x 592x 640	2800/ 115	8	6	1.6		C
3146309	9/640	F9	ePM1 85%	287x 592x 640	1700/ 115	5	3,7	1,4		C
3146310	9/520	F9	ePM1 85%	592x 592x 520	3400/ 165	10	6.1	2.2	2091	D
3146311	9/520	F9	ePM1 85%	490x 592x 520	2800/ 165	8	4.9	1.4		D
3146312	9/520	F9	ePM1 85%	287x 592x 520	1700/ 165	5	3	1.3		D

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019 Certification and test results available online.

Aeropleat III



Advantages

- Moisture resistant cardboard frame
- Robust construction
- Comprehensive range of standard and non standard sizes
- Fully supported media bonded onto a wire support grid
- Bonded into case to eliminate air by-pass

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Cardboard
Media: Cotton/Synthetic
Rec. final pressure drop: 250 Pa
Max Temperature (°C): 70°C maximum in continuous service
Installation Options: Front and side access housings and frames are available, Type 8 and FC Housings
Comment: Fire rating: UL 900

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
116300001	Aeropleat III 20x16x2	MERV 8	G4	Coarse 65%	394x 495x 44	1887/ 70	0.6	0.4
116300002	Aeropleat III 20x20x2	MERV 8	G4	Coarse 65%	495x 495x 44	2363/ 70	0.8	0.5
116300003	Aeropleat III 25x20x2	MERV 8	G4	Coarse 65%	495x 622x 44	2950/ 70	1.0	0.6
116300004	Aeropleat III 25x16x2	MERV 8	G4	Coarse 65%	394x 622x 44	2363/ 70	0.73	0.5
116300005	Aeropleat III 24x24x2	MERV 8	G4	Coarse 65%	594x 594x 44	3400/ 70	1.13	0.65
116300006	Aeropleat III 24x12x2	MERV 8	G4	Coarse 65%	289x 594x 44	1656/ 70	0.57	0.35
116300007	Aeropleat III 24x20x2	MERV 8	G4	Coarse 65%	495x 594x 44	2839/ 70	0.96	0.55
116300008	Aeropleat III 24x18x2	MERV 8	G4	Coarse 65%	444x 594x 44	2550/ 70	0.85	0.5
116307001	Aeropleat III 24x24x4	MERV 8	G4	Coarse 65%	594x 594x 95	3400/ 50	2.11	1.2
116307002	Aeropleat III 24x12x4	MERV 8	G4	Coarse 65%	289x 594x 95	1700/ 50	1.05	0.65
116307004	Aeropleat III 20x16x4	MERV 8	G4	Coarse 65%	390x 492x 95	1853/ 50	1.17	0.75
116307005	Aeropleat III 25x16x4	MERV 8	G4	Coarse 65%	390x 619x 95	2332/ 50	1.46	0.9
116307007	Aeropleat III 24x20x4	MERV 8	G4	Coarse 65%	492x 594x 95	2768/ 50	1.76	1.05
116307003	Aeropleat III 20x20x4	MERV 8	G4	Coarse 65%	492x 492x 95	2336/ 50	1.46	0.9

30/30 ®

Advantages

- Water resistant cardboard frame
- Robust construction
- Bonded cross members to maintain pleat spacing
- Fully supported media bonded onto a wire support grid
- Radial pleat design for full media utilization
- Replaceable filter media

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Cardboard
Media: Polyester
Rec. final pressure drop: 250 Pa
Max Temperature (°C): 70°C maximum in continuous service
Installation Options: Holding frames: Front and side access housings and frames are available, Type 8 and FC Housings
Comment: Fire rating: UL 900

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
54862001	30/30 20x16x1	MERV 8	G4	ePM10 50%	394x 495x 22	1326/ 60	0.5	0.3
54862002	30/30 20x20x1	MERV 8	G4	ePM10 50%	495x 495x 22	1650/ 60	0.61	0.4
54862003	30/30 25x20x1	MERV 8	G4	ePM10 50%	495x 622x 22	2065/ 60	0.74	0.55
54862004	30/30 25x16x1	MERV 8	G4	ePM10 50%	394x 622x 22	1650/ 60	0.62	0.42
54862005	30/30 24x24x1	MERV 8	G4	ePM10 50%	594x 594x 22	2380/ 60	0.91	0.6
54862010	30/30 24x12x1	MERV 8	G4	ePM10 50%	292x 594x 22	1190/ 60	0.46	0.3
54862011	30/30 24x20x1	MERV 8	G4	ePM10 50%	495x 594x 22	1980/ 60	0.74	0.53
49880001	30/30 20x16x2	MERV 8	G4	ePM10 50%	394x 495x 44	1870/ 80	0.92	0.44
49880002	30/30 20x20x2	MERV 8	G4	ePM10 50%	495x 495x 44	2363/ 80	1.11	0.55
49880003	30/30 25x20x2	MERV 8	G4	ePM10 50%	495x 622x 44	2958/ 80	1.39	0.7
49880004	30/30 25x16x2	MERV 8	G4	ePM10 50%	394x 622x 44	2363/ 80	1.15	0.55
49880005	30/30 24x24x2	MERV 8	G4	ePM10 50%	594x 594x 44	3400/ 80	1.61	0.78
49880006	30/30 24x12x2	MERV 8	G4	ePM10 50%	289x 594x 44	1700/ 80	0.78	0.4
49880009	30/30 20x14x2	MERV 8	G4	ePM10 50%	343x 495x 44	1658/ 80	0.77	0.25
49880012	30/30 24x20x2	MERV 8	G4	ePM10 50%	495x 594x 44	2839/ 80	1.33	0.45
49880015	30/30 24x18x2	MERV 8	G4	ePM10 50%	444x 594x 44	2550/ 80	1.21	0.61
49880017	30/30 24x16x2	MERV 8	G4	ePM10 50%	394x 594x 44	2270/ 80	1.1	0.55
59413001	30/30 24x24x4	MERV 8	G4	ePM10 50%	594x 594x 95	3400/ 70	2.58	1.45
59413002	30/30 24x12x4	MERV 8	G4	ePM10 50%	289x 594x 95	1700/ 70	1.29	0.6
59413003	30/30 20x20x4	MERV 8	G4	ePM10 50%	492x 492x 95	2363/ 70	1.76	0.3
59413004	30/30 20x16x4	MERV 8	G4	ePM10 50%	390x 492x 95	1870/ 70	1.46	0.25
59413005	30/30 25x16x4	MERV 8	G4	ePM10 50%	390x 619x 95	2363/ 70	1.83	0.25
59413006	30/30 25x20x4	MERV 8	G4	ePM10 50%	492x 619x 95	2958/ 70	2.19	0.45
59413008	30/30 24x20x4	MERV 8	G4	ePM10 50%	492x 594x 95	2839/ 70	2.11	1.02
59413010	30/30 25x25x4	MERV 8	G4	ePM10 50%	619x 619x 95	3689/ 70	2.79	0.5

Dual10

Advantages

- Water resistant frame board
- Diagonal Support
- Radial Pleats
- Proprietary Dual High Lofted Fibers
- Welded Steel Grid with Corrosion Inhibitor
- Built Strong

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Water resistant cardboard
Media: Dual layered, blended polyester
Max Temperature (°C): 90°C
Installation Options: Front and side access housings and frames are available, Type 8, Type L, and FC Housings.
Comment: Fire rating: UL 900

Art. No.	Type	ASHRAE 52.2-2017	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)	Energy consumption	Energy class
540F-FG406331005	Dual10 24x24x2	MERV 9	ePM10 55%	594x 594x 44	3400/ 75	1.56	0,8	1008	D
540F-FG406331012	Dual10 24x20x2	MERV 9	ePM10 55%	495x 594x 44	2839/ 75	1.30	0,7		D
540F-FG406331002	Dual10 20x20x2	MERV 9	ePM10 55%	495x 495x 44	2363/ 75	1.09	0,6		D
540F-FG406331006	Dual10 24x12x2	MERV 9	ePM10 55%	289x 594x 44	1700/ 75	0.78	0,4		D
540F-FG406332005	Dual10 24x24x4	MERV 9	ePM10 55%	594x 594x 95	3400/ 68	2.47	1.50	1020	D
540F-FG406332012	Dual10 24x20x4	MERV 9	ePM10 55%	492x 594x 95	2839/ 68	2.05	1.10		D
540F-FG406332002	Dual10 20x20x4	MERV 9	ePM10 55%	492x 492x 95	2363/ 68	1.70	1.00		D
540F-FG406332006	Dual10 24x12x4	MERV 9	ePM10 55%	289x 594x 95	1700/ 68	1.24	0.75		D

AP WR

Advantages

- Superior moisture resistance
- A multi-layered noncellulose media, repels water, captures dust, lint, pollen and other particulate contaminants
- Bonded into case to eliminate air bypass
- Large media surface
- High media surface area

Application: Prevention of dust and dirt build up on heating/cooling coils within ventilation systems
Frame: Water resistant cardboard
Media: Glass fiber
Rec. final pressure drop: 250 Pa
Max Temperature (°C): 70°C
Installation Options: Holding frames: Front and side access housings and frames are available, Type 8 and FC Housings

Art. No.	Type	ASHRAE 52.2-2017	EN779	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
125343005	AP WR 24x24x2	MERV 7	G4	595x 595x 44	3400/ 60	2,61	0.65
125343006	APWR 24x12x2	MERV 7	G4	289x 595x 44	1700/ 60	1,27	0.33
402137001	AP WR 24x24x4	MERV 7	G4	595x 595x 95	3400/ 55	4,24	1.2
402137002	AP WR 24x12x4	MERV 7	G4	289x 595x 95	1700/ 55	2.12	0.6

CityPleat

Advantages

- "2-in-1" filtration solution; particulate and molecular
- Removal of solid and gaseous contaminants in one filter stage
- Ideal for filtering low concentrations of most external and internal source pollutants
- Can be used to upgrade existing installations

Application: High efficiency particle filtration for deodarisation and removal of gas pollutants, used for filtration in offices, airports
Frame: Water resistant cardboard
Media: Synthetic/Activated Carbon
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 50 Pa or initial pressure drop x3 (whichever is lower)
Max. final pressure drop: 250 Pa
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 50°C
Relative Humidity max: 30% - 70%
Installation Options: Front and side access housings and frames are available
Comment: Ozone removal efficiency: 50 - 70% depending on model and air flow. All values are +-15%

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
5103001	CityPleat-100-594x594x44	G4	Coarse 65%	594x 594x 44	2000/ 140	1
5103007	CityPleat-100-289x594x44	G4	Coarse 65%	289x 594x 44	1000/ 140	0,5
5103004	CityPleat-200-289x594x44	G4	Coarse 65%	289x 594x 44	1700/ 140	0,9
5103005	CityPleat-200-594x594x44	G4	Coarse 65%	594x 594x 44	3400/ 140	1,8
5103011	CityPleat-200-594x594x95	G4	Coarse 65%	594x 594x 95	3400/ 125	2
5103008	CityPleat-200-289x594x95	G4	Coarse 65%	289x 594x 95	1700/ 125	1
5103010	CityPleat-480-594x594x95	G4	Coarse 65%	594x 594x 95	3400/ 90	3,8
5103009	CityPleat-480-289x594x95	G4	Coarse 65%	289x 594x 95	1700/ 90	1,9

Full size test in Camfil molecular filtration test rig

ECO Moisture Separator

Advantages

- Pre-drilled weeping holes for drainage or reclaim of valuable process oils
- Optional coalescer pad available for increased efficiency

Application: High moisture situations in commercial or industrial processes, or oil-laden industrial applications. Includes weeping holes for drainage or reclaim of airborne oil or mists.
Frame: Stainless steel, Galvanised steel
Rec. final pressure drop: 250 Pa when operated at 2.5 m/s. System design may dictate alternative changeout point
Comment: Media: Multi layered galvanized steel wire or stainless steel wire
Efficiency: 98%+ on droplets 20 microns and larger
Airflow operating range: Velocity of 2.25 m/s to 2.75 m/s, consult factory outside of this range.

Art. No.	Type	Dimensions WxHxD (mm)	Airflow/pressure drop (m^3/h/Pa)	Weight (kg)
064649-002	EcoMoister-For built-up banks	289x 594x 95	1700/	4,5
064649-003	EcoMoister-For built-up banks	594x 289x 95	1700/	4,5
064649-004	EcoMoister-For side access housings(includes sealing gasket on vertical side)	594x 594x 95	3400/	8,6
064649-005	EcoMoister-For side access housings(includes sealing gasket on vertical side)	289x 594x 95	1700/	4,5
064649-006	EcoMoister-For side access housings(includes sealing gasket on vertical side)	594x 289x 95	1700/	4,5
098512-001	EcoMoister-For built-up banks	594x 594x 95	3400/	8,6
098512-002	EcoMoister-For built-up banks	594x 289x 95	1700/	4,5
098512-003	EcoMoister-For built-up banks	289x 594x 95	1700/	4,5
098512-004	EcoMoister-For side access housings(includes sealing gasket on vertical side)	594x 594x 95	3400/	8,6
098512-005	EcoMoister-For side access housings(includes sealing gasket on vertical side)	594x 289x 95	1700/	4,5
098512-006	EcoMoister-For side access housings(includes sealing gasket on vertical side)	289x 594x 95	1700/	4,5
064649-001	EcoMoister-For built-up banks	594x 594x 95	3400/	8,6

EcoPleat G

Advantages

- Ultra compact panel filter with ePM1 and ePM10 efficiencies
- Low pressure drop thanks to large surface area
- Long operating life with large dust holding capacity
- Less frequent changes
- Fully combustible plastic frame

Application: Air conditioning or industrial processing systems and for mini air conditioning systems, individual modules, ventilation equipment
Frame: ABS
Media: Glass fiber
Separator: Hot-melt
Dimensions: Filter front dimensions according EN 15805
Max. final pressure drop: 350 Pa
Max airflow: 1,1 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available

Due to its small size, EcoPleat G can be installed in most air handling units. Close pleats ensure low energy consumption, a large filter area and low pressure drop.
The filter media used in EcoPleat G has very fine fibres that guarantee efficient removal of submicron particles throughout the filter's lifetime. The removal efficiency can be as high as 10 times the efficiency of G4 pre-filters with efficiencies ranging from M5 to F9.
The water-resistant plastic frame provides extra assurance in high-humidity applications. Due to its frame, EcoPleat G is also 50% lighter than the metal frame version for a smaller environmental impact and easier handling.
EcoPleat G is well suited for commercial and residential air handling units, as well as other stand-alone systems for comfort applications.
EcoPleat is also available with cardboard and metal frames.

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2715001	3GPPS-12242-M6	MERV A 11A	M6	ePM10 70%	287x 592x 48	950/ 50	2,9	2
2715002	3GPPS-20242-M6	MERV A 11A	M6	ePM10 70%	490x 592x 48	1500/ 50	4.9	2.5
2715003	3GPPS-24242-M6	MERV A 11A	M6	ePM10 70%	592x 592x 48	2900/ 75	5,3	3
2715004	3GPPS-12242-F7	MERV A 13A	F7	ePM1 55%	287x 592x 48	1450/ 110	2,9	1,5
2715005	3GPPS-20242-F7	MERV A 13A	F7	ePM1 55%	490x 592x 48	1500/ 75	4.9	2.5
2715006	3GPPS-24242-F7	MERV A 13A	F7	ePM1 55%	592x 592x 48	2900/ 110	5,8	3
2715007	3GPPS-12242-F8	MERV A 14A	F8	ePM1 70%	287x 592x 48	1450/ 160	2,8	1,5
2715008	3GPPS-20242-F8	MERV A 14A	F8	ePM1 70%	490x 592x 48	1500/ 85	4.9	2.5
2715009	3GPPS-24242-F8	MERV A 14A	F8	ePM1 70%	592x 592x 48	2900/ 160	6,3	3
2714001	3GPPS-12244-M6	MERV A 11A	M6	ePM10 70%	287x 592x 96	1450/ 70	5,1	3
2714002	3GPPS-20244-M6	MERV A 11A	M6	ePM10 70%	490x 592x 96	2800/ 105	9.9	3.5
2714003	3GPPS-24244-M6	MERV A 11A	M6	ePM10 70%	592x 592x 96	2900/ 70	10,2	4
2714004	3GPPS-12244-F7	MERV A 13A	F7	ePM1 55%	287x 592x 96	1450/ 100	5,7	3
2714005	3GPPS-20244-F7	MERV A 13A	F7	ePM1 55%	490x 592x 96	2800/ 135	9.9	3.5
2714006	3GPPS-24244-F7	MERV A 13A	F7	ePM1 55%	592x 592x 96	2900/ 100	11,5	4
2714007	3GPPS-12244-F8	MERV A 14A	F8	ePM1 70%	287x 592x 96	1450/ 105	4,4	3
2714008	3GPPS-20244-F8	MERV A 14A	F8	ePM1 70%	490x 592x 96	2800/ 145	9.9	3.5
2714009	3GPPS-24244-F8	MERV A 14A	F8	ePM1 70%	592x 592x 96	2900/ 105	12,8	4
2714517	3GPPS-24244-F9	MERV A 15A	F9	ePM1 80%	592x 592x 96	3400/ 160	11.9	4
2714518	3GPPS-12244-F9	MERV A 15A	F9	ePM1 80%	287x 592x 96	1700/ 160	5.8	3
2714520	3GPPS-20244-F9	MERV A 15A	F9	ePM1 80%	490x 592x 96	2800/ 160	9.9	3.5

Other sizes available on request

EcoPleat ProSafe

Advantages

- ProSafe certified for Food Beverage, Life Science or close to product applications
- Chemically resistant to decontamination, inactivation and cleaning agent
- Microbial inert components acc. to ISO 846
- Compliant to VDI 6022
- Free of bisphenol-A, phthalate and formaldehyde
- Tested for food safety acc. to EC 1935:2004
- Manufactured and packed in a controlled environment
- Packaging suitable for cleanroom unpacking

Application: Industrial processing systems, ventilation equipment, air intake and return air
Frame: ABS
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Dimensions: Filter front dimensions according EN 15805
Max airflow: 1,1 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available
Comment: Option: PU gasket (ProSafe certified)
Note: Unit packaging hygienic bag

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2718001	3GPPS-12242-M6	MERV 11	M6	ePM10 70%	287x 592x 48	950/ 50	2.6	0.94
2718002	3GPPS-20242-M6	MERV 11	M6	ePM10 70%	490x 592x 48	1500/ 50	4.53	1.41
2718003	3GPPS-24242-M6	MERV 11	M6	ePM10 70%	592x 592x 48	1900/ 50	5.47	1.66
2718101	3GPPS-12242-F7	MERV 13	F7	ePM1 55%	287x 592x 48	950/ 75	3.14	0.97
2718102	3GPPS-20242-F7	MERV 13	F7	ePM1 55%	490x 592x 48	1500/ 75	5.47	1.46
2718103	3GPPS-24242-F7	MERV 13	F7	ePM1 55%	592x 592x 48	1900/ 75	6.62	1.72
2718201	3GPPS-12242-F8	MERV 14	F8	ePM1 70%	287x 592x 48	950/ 85	3.43	0.97
2718202	3GPPS-20242-F8	MERV 14	F8	ePM1 70%	490x 592x 48	1500/ 85	5.92	1.46
2718203	3GPPS-24242-F8	MERV 14	F8	ePM1 70%	592x 592x 48	1900/ 85	7.21	1.72
2718302	3GPPS-12242-F9	MERV 15	F9	ePM1 80%	287x 592x 48	1500/ 100	5.9	
2718301	3GPPS-24242-F9	MERV 15	F9	ePM1 80%	592x 592x 48	950/ 100	3.4	
2718303	3GPPS-20242-F9	MERV 15	F9	ePM1 80%	490x 592x 48	1900/ 100	7.2	
2718501	3GPPS-12244-M6	MERV 11	M6	ePM10 70%	287x 592x 96	1700/ 105	5.26	1.67
2718502	3GPPS-20244-M6	MERV 11	M6	ePM10 70%	490x 592x 96	2800/ 105	9.05	2.63
2718503	3GPPS-24244-M6	MERV 11	M6	ePM10 70%	592x 592x 96	3400/ 105	11.05	3.12
2718601	3GPPS-12244-F7	MERV 13	F7	ePM1 55%	287x 592x 96	1700/ 135	5.79	1.74
2718602	3GPPS-20244-F7	MERV 13	F7	ePM1 55%	490x 592x 96	2800/ 135	10.1	2.74
2718603	3GPPS-24244-F7	MERV 13	F7	ePM1 55%	592x 592x 96	3400/ 135	12.21	3.25
2718701	3GPPS-12244-F8	MERV 14	F8	ePM1 70%	287x 592x 96	1700/ 145	6.42	1.74
2718702	3GPPS-20244-F8	MERV 14	F8	ePM1 70%	490x 592x 96	2800/ 145	11.05	2.74
2718703	3GPPS-24244-F8	MERV 14	F8	ePM1 70%	592x 592x 96	3400/ 145	13.47	3.25
2718802	3GPPS-12244-F9	MERV 15	F9	ePM1 80%	287x 592x 96	1700/ 160	7.47	1.74
2718801	3GPPS-24244-F9	MERV 15	F9	ePM1 80%	592x 592x 96	3400/ 160	15.89	3.25
2718803	3GPPS-20244-F9	MERV 15	F9	ePM1 80%	490x 592x 96	2800/ 160	13.05	2.74

Airopac ® Green

Advantages

- Low pressure drop
- Water resistant beverage board
- Large surface area
- Incinerable
- Rigid design concept
- High dust holding capacity

Application: Air conditioning applications and preparatory filtration in clean rooms
Frame: Water resistant cardboard
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Rec. final pressure drop: 450 Pa (suggested economical change point 250 Pa)
Max Temperature (°C): 70°C maximum in continuous service
Installation Options: Front and side access housing and frames are available
Comment: Holding frames: Type 8 and FC Housings

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/ Pa)	Weight (kg)
2700001	3GP-24244-60	M6	ePM10 70%	594x 594x 95	3400/ 120	2.3
2700002	3GP-20244-60	M6	ePM10 70%	492x 594x 95	2810/ 120	1.9
2700003	3GP-12244-60	M6	ePM10 70%	289x 594x 95	1645/ 120	1.2
2700004	3GP-20204-60	M6	ePM10 70%	492x 492x 95	2325/ 120	1.5
2700013	3GP-24244-90	F7	ePM1 55%	594x 594x 95	3400/ 130	2.3
2700014	3GP-20244-90	F7	ePM1 55%	492x 594x 95	2810/ 130	1.9
2700015	3GP-12244-90	F7	ePM1 55%	289x 594x 95	1645/ 130	1.2
2700016	3GP-20204-90	F7	ePM1 55%	492x 492x 95	2325/ 130	1.5
2700025	3GP-24244-95	F8	ePM1 70%	594x 594x 95	3400/ 150	2.3
2700026	3GP-20244-95	F8	ePM1 70%	492x 594x 95	2810/ 150	1.9
2700027	3GP-12244-95	F8	ePM1 70%	289x 594x 95	1645/ 150	1.2
2700028	3GP-20204-95	F8	ePM1 70%	492x 492x 95	2325/ 150	1.5

Opakfil ES

Advantages

- Extended operating life with best total cost of ownership (TCO)
- Light and robust filter construciton
- Very low energy consumption and high dust holding capacity
- Lowest labour cost thanks to less frequent changes
- Aerodynamic radial design for improved air flow

Application: Air conditioning applications and preparatory filtration in clean rooms
Frame: ABS
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available
Comment: SGBP : Applicable for F8 and F9 class (√√√√ LEADER) only

Art. No.	Type	ASHRAE 52.2:2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)	Energy consumption	Energy class
2400501	OPGP-M6-0592/0592/0296-ES-00	MERV A 11A	M6	ePM10 70%	592x 592x 296	3400/ 60	17	5	770	B
2400502	OPGP-M6-0592/0490/0296-ES-00	MERV A 11A	M6	ePM10 70%	592x 490x 296	2800/ 60	14	4		B
2400503	OPGP-M6-0592/0287/0296-ES-00	MERV A 11A	M6	ePM10 70%	592x 287x 296	1700/ 60	8	3		B
2400601	OPGP-F7-0592/0592/0296-ES-00	MERV A 13A	F7	ePM1 60%	592x 592x 296	3400/ 65	17	5	838	A+
2400602	OPGP-F7-0592/0490/0296-ES-00	MERV A 13A	F7	ePM1 60%	592x 490x 296	2800/ 65	14	4		A+
2400603	OPGP-F7-0592/0287/0296-ES-00	MERV A 13A	F7	ePM1 60%	592x 287x 296	1700/ 65	8	3		A+
2400701	OPGP-F8-0592/0592/0296-ES-00	MERV A 14A	F8	ePM1 70%	592x 592x 296	3400/ 75	17	5	1020	A
2400702	OPGP-F8-0592/0490/0296-ES-00	MERV A 14A	F8	ePM1 70%	592x 490x 296	2800/ 75	14	4		A
2400703	OPGP-F8-0592/0287/0296-ES-00	MERV A 14A	F8	ePM1 70%	592x 287x 296	1700/ 75	8	3		A
2400801	OPGP-F9-0592/0592/0296-ES-00	MERV A 15A	F9	ePM1 80%	592x 592x 296	3400/ 90	17	5	1212	A
2400802	OPGP-F9-0592/0490/0296-ES-00	MERV A 15A	F9	ePM1 80%	592x 490x 296	2800/ 90	14	4		A
2400803	OPGP-F9-0592/0287/0296-ES-00	MERV A 15A	F9	ePM1 80%	592x 287x 296	1700/ 90	8	3		A

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019

Opakfil ProSafe ES

Advantages

- ProSafe certified for Food Beverage, Life Science or close to product applications
- Chemically resistant to decontamination, inactivation and cleaning agent
- Microbial inert components acc. to ISO 846
- Compliant to VDI 6022
- Free of bisphenol-A, phthalate and formaldehyde
- Tested for food safety acc. to EC 1935:2004
- Manufactured and packed in a controlled environment
- Packaging suitable for cleanroom unpacking

Application: Air conditioning applications and preparatory filtration in clean rooms
Frame: ABS
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available

Food and Beverage or Life-Science activities have set new standards in product quality and therefore require specific characteristics regarding process definition.
Camfil, as the leader in clean air solutions and air filtration, has developed the complete ProSafe range of products designed for the most demanding processes, including safety, traceability and audits requirement.

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)	Energy consumption	Energy class
2400501-P	OPGP-M6-0592/0592/0296-ES-PS-00	M6	ePM10 70%	592x 592x 296	3400/ 60	17	5	770	B
2400502-P	OPGP-M6-0592/0490/0296-ES-PS-00	M6	ePM10 70%	592x 490x 296	2800/ 60	14	4		B
2400503-P	OPGP-M6-0592/0287/0296-ES-PS-00	M6	ePM10 70%	592x 287x 296	1700/ 60	8	3		B
2400601-P	OPGP-F7-0592/0592/0296-ES-PS-00	F7	ePM1 60%	592x 592x 296	3400/ 65	17	5	838	A+
2400602-P	OPGP-F7-0592/0490/0296-ES-PS-00	F7	ePM1 60%	592x 490x 296	2800/ 65	14	4		A+
2400603-P	OPGP-F7-0592/0287/0296-ES-PS-00	F7	ePM1 60%	592x 287x 296	1700/ 65	8	3		A+
2400701-P	OPGP-F8-0592/0592/0296-ES-PS-00	F8	ePM1 70%	592x 592x 296	3400/ 75	17	5	1020	A
2400702-P	OPGP-F8-0592/0490/0296-ES-PS-00	F8	ePM1 70%	592x 490x 296	2800/ 75	14	4		A
2400703-P	OPGP-F8-0592/0287/0296-ES-PS-00	F8	ePM1 70%	592x 287x 296	1700/ 75	8	3		A
2400801-P	OPGP-F9-0592/0592/0296-ES-PS-00	F9	ePM1 80%	592x 592x 296	3400/ 90	17	5	1212	A
2400802-P	OPGP-F9-0592/0490/0296-ES-PS-00	F9	ePM1 80%	592x 490x 296	2800/ 90	14	4		A
2400803-P	OPGP-F9-0592/0287/0296-ES-PS-00	F9	ePM1 80%	592x 287x 296	1700/ 90	8	3		A

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019. Certification and test results available online.

Opakfil ST

Advantages

- Long operating life
- Light and robust
- Long performance
- Aerodynamic radial design
- Less frequent changes

Application: Air conditioning applications
Frame: ABS
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available
Comment: SGBP : Applicable for F8 (√√√ EXCELLENT) and F9 class (√ GOOD) only

Art. No.	Type	ASHRAE 52.2:2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)	Energy consumption	Energy class
2410501	OPGP-M6-0592/0592/0296-ST-00	MERV A 11A	M6	ePM10 70%	592x 592x 296	3400/ 60	13	4	952	D
2410502	OPGP-M6-0592/04 90/0296-ST-00	MERV A 11A	M6	ePM10 70%	592x 490x 296	2800/ 60	10	3		D
2410503	OPGP-M6-0592/0287/0296-ST-00	MERV A 11A	M6	ePM10 70%	592x 287x 296	1700/ 60	6	2		D
2410601	OPGP-F7-0592/0592/0296-ST-00	MERV A 13A	F7	ePM1 55%	592x 592x 296	3400/ 70	13	4	895	A
2410602	OPGP -F7-0592/0490/0296-ST-00	MERV A 13A	F7	ePM1 55%	592x 490x 296	2800/ 70	10	3		A
2410603	OPGP-F7-0592/0287/0296-ST-00	MERV A 13A	F7	ePM1 55%	592x 287x 296	1700/ 70	6	2		A
2410701	OPGP-F8-0592/0592/0296-ST-00	MERV A 14A	F8	ePM1 70%	592x 592x 296	3400/ 90	13	4	1178	B
2410702	OPGP-F8-0592/0490/0296-ST-00	MERV A 14A	F8	ePM1 70%	592x 490x 296	2800/ 90	10	3		B
2410703	OPGP-F8-059 2/0287/0296-ST-00	MERV A 14A	F8	ePM1 70%	592x 287x 296	1700/ 90	6	2		B
2410801	OPGP-F9-0592/0592/0296-ST-00	MERV A 15A	F9	ePM1 80%	592x 592x 296	3400/ 110	13	4	1507	C
2410802	OPGP -F9-0592/0490/0296-ST-00	MERV A 15A	F9	ePM1 80%	592x 490x 296	2800/ 110	10	3		C
2410803	OPGP-F9-0592/0287/0296-ST-00	MERV A 15A	F9	ePM1 80%	592x 287x 296	1700/ 110	6	2		C

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019

Opakfil 2V

Advantages

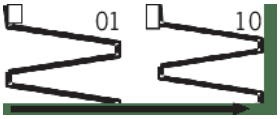
- Light and robust
- Fully incinerable

Application: Air conditioning applications and preparatory filtration in clean rooms
Frame: ABS
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available

Art. No.	Type	ASHRAE 52.2:2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2481001	OPGP-M6-0592/0592/0268-2V-20-00	MERV A 11A	M6	ePM10 70%	592x 592x 268	3400/ 85	8	3
2481002	OPGP-M6-0592/0490/0268-2V-20-00	MERV A 11A	M6	ePM10 70%	592x 490x 268	2800/ 85	7	2,5
2481003	OPGP-M6-0592/0287/0268-2V-20-00	MERV A 11A	M6	ePM10 70%	592x 287x 268	1700/ 85	4	2
2481004	OPGP-F7-0592/0592/0268-2V-20-00	MERV A 13 A	F7	ePM1 55%	592x 592x 268	3400/ 100	8	3
2481005	OPGP-F7-0592/0490/0268-2V-20-00	MERV A 13A	F7	ePM1 55%	592x 490x 268	2800/ 100	7	2,5
2481006	OPGP-F7-0592/0287/0268-2V-20-00	MERV A 13A	F7	ePM1 55%	592x 287x 268	1700/ 100	4	2
2481007	OPGP-F8-0592/0592/0268-2V-20-00	MERV A 14A	F8	ePM1 70%	592x 592x 268	3400/ 120	8	3
2481008	OPGP-F8-0592/0490/0268-2V-20-00	MERV A 14A	F8	ePM1 70%	592x 490x 268	2800/ 120	7	2,5
2481009	OPGP-F8-0592/0287/0268-2V-20-00	MERV A 14A	F8	ePM1 70%	592x 287x 268	1700/ 120	4	2
2481010	OPGP-F9-0592/0592/0268-2V-20-00	MERV A 15A	F9	ePM1 80%	592x 592x 268	3400/ 230	8	3
2481011	OPGP-F9-0592/0490/0268-2V-20-00	MERV A 15A	F9	ePM1 80%	592x 490x 268	2800/ 230	7	2.5
2481012	OPGP-F9-0592/0287/0268-2V-20-00	MERV A 15A	F9	ePM1 80%	592x 287x 268	1700/ 230	4	2

25mm header frame (depth with 272 mm is available on request)
Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019

CityCarb I



Advantages

- "2-in-1" filtration solution; particulate and molecular
- Removal of solid and gaseous contaminants in one filter stage
- Ideal for filtering moderate concentrations of most external and internal source pollutants
- Can be used to upgrade existing installations

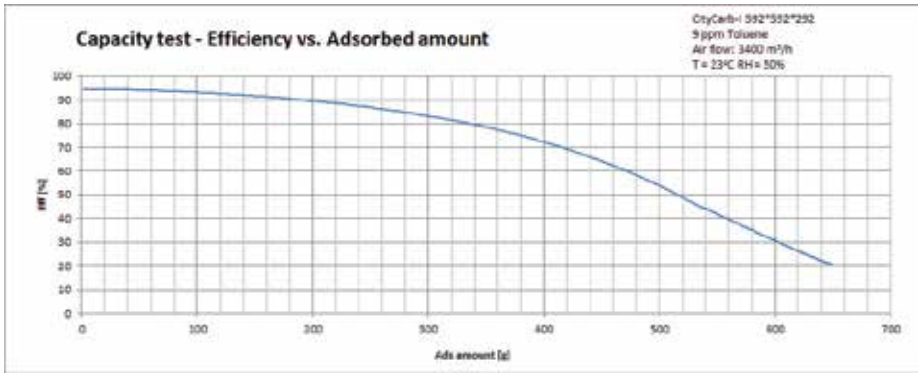
Application: Particle and corrosive acids removal in museums, art galleries, libraries etc
Type: Loose Fill Cylinder
Frame: Plastic moulded
Gasket: One piece PU gasket (01 in the standard version)
Media: Activated Carbon, Impregnated Activated Carbon, Impregnated Activated Alumina
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop acc. EN 13053: Initial pressure drop + 100 Pa or initial pressure drop x3 (whichever is lower)
Max airflow: 1,25 x nominal flow
Max Temperature (°C): -21 to 60
Relative Humidity max: 70%
Installation Options: Front and side access housings and frames are available

A compact filter with an additional molecular filtration media layer to provide enhanced IAQ through combined particle filtration and gas filtration.

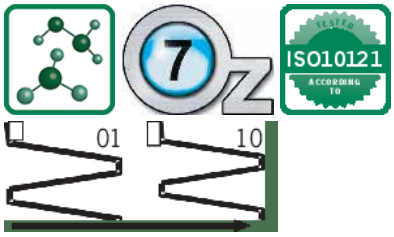
CityCarb is the ultimate solution when a high performance compact filter and a high performance molecular (gas, odour) filter must be installed in a single location. CityCarb filter can easily be fitted into new or existing standard filter frames. Particle filtration media is combined with an exclusive "Broad Spectrum" carbon media that exploits the benefits of "Rapid Adsorption Dynamics" (RAD) to remove a very wide range of VOCs and odours. Molecular pollutants are released from both external sources (traffic fumes, power generation , industry) and internal sources (building construction and finish materials, wooden materials, carpets, cleaning agents etc).

The filter should be replaced when the pressure loss exceeds the maximum allowable value for the ventilation system or after a maximum of one year. In accordance with good practice, used CityCarb filters should be bagged immediately after removal and disposed of by the appropriate route.

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)	ePM1	ePM1min	ePM2,5	ePM2,5min	ePM10
56710001	CityCarb-I 242412-01PU	F7	ePM1 70%	592x 592x 292	3400/ 130	8	9,3	71	55	79	68	93
56710002	CityCarb-I 242012-01PU	F7	ePM1 70%	592x 490x 292	2800/ 130	6,6	6,8					
56710003	CityCarb-I 241212-01PU	F7	ePM1 70%	592x 287x 292	1500/ 130	3,8	4,8					



CitySorb



Advantages

- Compact filter with molecular media
- Removal of gaseous contaminants
- Ideal for filtering moderate concentrations of most external and internal source pollutants
- Can be used to upgrade existing installations

Application: Adsorption of odours and gases in air conditioning applications
Frame: Plastic moulded
Gasket: One piece PU gasket (01 in the standard version)
Media: Activated Carbon
Separator: Hot-melt
Sealant: Polyurethane
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop: 2x Initial pressure drop
Max Temperature (°C): 40° C
Relative Humidity max: 70%
Installation Options: Front and side access housings and frames are available

The CitySorb filter utilizes a highly effective broad spectrum carbon media to ensure removal of a very wide range of airborne chemicals.
The broad spectrum carbon operates with a Rapid Adsorption Dynamics (RAD) mechanism that is specifically designed to be highly efficient against the multiple chemicals that are typically present in low or moderate concentrations in city-centre buildings or other locations.
CitySorb is an effective ozone filter with a 70% ozone removal efficiency or Oz7 ozone removal rating according to the unique Camfil system.

Art. No.	Type	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
56700003	CitySorb 242412-01PU	592x 592x 292	3400/ 80	8	10.8
56700201	CitySorb 242012-01PU	592x 490x 292	2800/ 80	6,6	9.2
56700005	CitySorb 241212-01PU	592x 287x 292	1500/ 80	3,5	5.4

CitySorb DP

Advantages

- Standard design for removal of acids, alkalines, organic smells and condensable organics.
- Compact solution with low pressure dropFrame is also available in box type other than single / double header

Application: Remove of diverse gaseous contaminant
Frame: Galvanised steel
Relative Humidity max: 30% · 70%
Comment: Frame: Galvanised steel (other on request). BH: Double Header, PH: Single Header, DH: Box Type
Media: Type 201: nonwoven fiber material with carbon for removal of organic smells and condensable organics. Type 202: nonwoven fiber material with impregnated carbon for removal of acids. Type 204: nonwoven fiber material with impregnated carbon for removal of alkalines
Recommended temperature: 0 · 40°C

Art. No.	Type	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
5640018	CitySorb-DP-201-242412-BH	592x 592x 292	3400/ 75	15
5642000	CitySorb-DP-201-241212-BH	287x 592x 292	1700/ 75	8
5640024	CitySorb-DP-201-242412-PH	592x 592x 292	3400/ 75	15
5645000	CitySorb-DP-201-241212-PH	287x 592x 292	1700/ 75	8
5640001	CitySorb-DP-202-242412-BH	592x 592x 292	3400/ 75	15
5640010	CitySorb-DP-202-241212-BH	287x 592x 292	1700/ 75	8
5640006	CitySorb-DP-202-242412-PH	592x 592x 292	3400/ 75	15
5640004	CitySorb-DP-202-241212-PH	287x 592x 292	1700/ 75	8
5640002	CitySorb-DP-204-242412-BH	592x 592x 292	3400/ 75	15
5640012	CitySorb-DP-204-241212-BH	287x 592x 292	1700/ 75	8
5640011	CitySorb-DP-204- 242412 -PH	592x 592x 292	3400/ 75	15
5640005	CitySorb-DP-204-2 41212-PH	287x 592x 292	1700/ 75	8

Durafil ® ESB

Advantages

- Dual headers for front loading filter installations
- Lowest Life-Cycle Cost (LCC) filter available
- Fine fiber ensures that the filter will maintain efficiency throughout its life in the system
- Lowest initial pressure drop of any dual header box style air filter
- Built-in spacer for pleated prefilters

Application: Built-up filter banks, rooftops, split systems, free-standing units, package systems and air handlers that require a filter with dual headers
Type: Box Filter
Frame: Plastic
Media: Glass fiber
Rec. final pressure drop: 450 Pa (suggested economical change point 250 Pa)
Rec. final pressure drop: 2x Initial pressure drop
Max Temperature (°C): 70°C
Comment: Fire rating: UL 900

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2495001	DU4V-ESB-242412-M6	MERV 11	M6	ePM10 70%	592x 592x 315	3400/ 65	18.3	4.97
2495002	DU4V-ESB-242012-M6	MERV 11	M6	ePM10 70%	592x 492x 315	2550/ 65	15	3.96
2495003	DUV4V-ESB-241212-M6	MERV 11	M6	ePM10 70%	592x 289x 315	1700/ 65	8.3	2.6
2495004	DUV4V-ESB-242412-F7	MERV 13	F7	ePM1 55%	592x 592x 315	3400/ 80	18.3	6.62
2495005	DUV-ESB-242012-F7	MERV 13	F7	ePM1 55%	592x 592x 315	2550/ 80	15	3.96
2495006	DU4V-ESB-241212-F7	MERV 13	F7	ePM1 55%	592x 289x 315	1700/ 80	8.3	2.6
2495007	DU4V-ESB-242412-F8	MERV 14	F8	ePM1 70%	592x 592x 315	3400/ 85	18.3	5.71
2495008	DU4V-ESB-242012-F8	MERV 14	F8	ePM1 70%	592x 492x 315	2550/ 85	15	3.96
2495009	DU4V-ESB-241212-F8	MERV 14	F8	ePM1 70%	592x 289x 315	1700/ 85	8.3	2.6
2495010	DU4V-ESB-242412-F9	MERV 15	F9	ePM1 80%	592x 592x 315	3400/ 115	18.3	6.49
2495011	DU4V-ESB-242012-F9	MERV 15	F9	ePM1 80%	592x 492x 315	2550/ 115	15	3.96
2495012	DU4V-ESB-241212-F9	MERV 15	F9	ePM1 80%	592x 289x 315	1700/ 115	8.3	2.6

Opakair

Advantages

- Long lifespan
- High efficiency
- Fast, simple filterchange
- Compact design

Application: High air flow air conditioning and process air applications
Frame: Galvanised steel
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Dimensions: Filter front dimensions according EN 15805
Max airflow: 1,1 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and safechange systems are available
Comment: Fire rating: DIN 53438 Class F1

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2420003	Opakair-90	F7	ePM1 55%	610x 610x 292	4500/ 105	20	18
2420004	Opakair-90	F7	ePM1 55%	305x 610x 292	2250/ 105	10	9
2420005	Opakair-95	F8	ePM1 70%	610x 610x 292	4500/ 130	20	18
2420006	Opakair-95	F8	ePM1 70%	305x 610x 292	2250/ 130	10	9

Airopac ® 3GGM

Advantages

- Large surface area
- Savings in operating costs
- Ultra compact
- High dust holding capacity

Application: Air conditioning or industrial processing systems and for mini air conditioning systems, individual modules.
Type: Compact Pleated Filter
Frame: Galvanised steel
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Rec. final pressure drop: 450 Pa (suggested economical change point 250 Pa)
Max Temperature (°C): 70°C
Comment: Fire rating: DIN 53438 Class Fl .

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
2100001	3GGM-24246-60	M6	ePM10 70%	610x 610x 150	3400/ 65	6.8
2100002	3GGM-20246-60	M6	ePM10 70%	508x 610x 150	2850/ 65	5.7
2100003	3GGM-12246-60	M6	ePM10 70%	305x 610x 150	1700/ 65	4
2100004	3GGM-20206-60	M6	ePM10 70%	508x 508x 150	2375/ 65	5
2100009	3GGM--24246-90	F7	ePM1 55%	610x 610x 150	3400/ 100	6.8
2100010	3GGM-20246-90	F7	ePM1 55%	508x 610x 150	2850/ 100	5.7
2100011	3GGM-12246-90	F7	ePM1 55%	305x 610x 150	1700/ 100	4
2100012	3GGM-20206-90	F7	ePM1 55%	508x 508x 150	2375/ 100	5
2100017	3GGM-24246-95	F8	ePM1 70%	610x 610x 150	3400/ 130	6.8
2100018	3GGM-20246-95	F8	ePM1 70%	508x 610x 150	2850/ 130	5.7
2100019	3GGM-12246-95	F8	ePM1 70%	305x 610x 150	1700/ 130	4
2100020	3GGM-20206-95	F8	ePM1 70%	508x 508x 150	2375/ 130	5

Airopac ® 3GGMHF

Advantages

- Large surface area
- Savings in operating costs
- Less frequent changes
- Ultra compact
- High dust holding capacity

Application: Air conditioning or industrial processing systems and for mini air conditioning systems, individual modules.
Type: Compact Pleated Filter
Frame: Galvanised steel
Gasket: Polyurethane
Media: Glass fiber
Separator: Hot-melt Separator Technology
Sealant: Polyurethane
Rec. final pressure drop: 450 Pa
Max airflow: 1,15 x nominal flow
Max Temperature (°C): 70°C
Comment: Fire rating: DIN 53438 Class F1

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2120001	3GGMHF-24245-60	MERV 11	M6	ePM2,5 50%	592x 592x 135	3400/ 85	10,13	5,1
2120002	3GGMHF-20245-60	MERV 11	M6	ePM2,5 50%	490x 592x 135	2850/ 90	8,29	5
2120003	3GGMHF-12245-60	MERV 11	M6	ePM2,5 50%	287x 592x 135	1700/ 105	4,6	3
2120005	3GGMHF-24245-90	MERV 13	F7	ePM1 55%	592x 592x 135	3400/ 125	10,13	5,1
2120006	3GGMHF-20245-90	MERV 13	F7	ePM1 55%	490x 592x 135	2850/ 130	8,29	5
2120007	3GGMHF-12245-90	MERV 13	F7	ePM1 55%	287x 592x 135	1700/ 145	4,6	3
2120004	3GGMHF-20205-60	MERV 11	M6	ePM1 70%	490x 490x 135	2375/ 90	5	5
2120008	3GGMHF-20205-90	MERV 13	F7	ePM1 55%	480x 490x 135	2375/ 135	5	5
2120012	3GGMHF-20205-95	MERV 14	F8	ePM1 70%	490x 490x 135	2375/ 175	5	5
2120009	3GGMHF-24245-95	MERV 14	F8	ePM1 70%	592x 592x 135	3400/ 160	6.8	6.8
2120010	3GGMHF-20245-95	MERV 14	F8	ePM1 70%	490x 592x 135	2850/ 170	5.7	5.7
2120011	3GGMHF-12245-95	MERV 14	F8	ePM1 70%	287x 592x 135	1700/ 195	3.8	3.8

Riga-Flo

Advantages

- Range of standard sizes
- Rigid design concept
- High Efficiency
- Suitable for turbulent airflow

Application: Air Conditioning applications
Type: Box Filter
Frame: Galvanised steel
Media: Glass fiber
Rec. final pressure drop: 450 Pa
Max Temperature (°C): 70°C
Comment: Holding frames: Front and side access housings and frames are available
Comment: Fire rating: UL 900

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
96026001	RF15 24x24x12	MERV 11	M6	ePM10 70%	594x 594x 292	3400/ 70	5.39	5.5
96026005	RF15 24x12x12	MERV 11	M6	ePM10 70%	289x 594x 292	1700/ 70	2.69	5
97293001	RF15 24x24x6	MERV 11	M6	ePM10 70%	594x 594x 149	2040/ 60	2.69	5.5
97293005	RF15 24x12x6	MERV 11	M6	ePM10 70%	289x 594x 149	1020/ 60	1.3	3.5
96026002	RF100 24x24x12	MERV 13	F7	ePM1 55%	594x 594x 292	3400/ 125	5.39	5.5
96026006	RF100 24x12x12	MERV 13	F7	ePM1 55%	289x 594x 292	1700/ 125	2.69	3.5
97293002	RF100 24x24x6	MERV 13	F7	ePM1 55%	594x 594x 149	2040/ 100	2.69	5.5
97293015	RF100 24x12x6	MERV 13	F7	ePM1 55%	289x 594x 149	1020/ 100	2.69	5.5
96026003	RF200 24x24x12	MERV 14	F8	ePM1 70%	594x 594x 292	3400/ 170	5.39	5.5
96026007	RF200 24x12x12	MERV 14	F8	ePM1 70%	289x 594x 292	1700/ 170	2.69	3.5
97293003	RF200 24x24x6	MERV 14	F8	ePM1 70%	594x 594x 149	2040/ 140	2.69	5.5
97293007	RF200 24x12x6	MERV 14	F8	ePM1 70%	289x 594x 149	1020/ 140	1.3	3.5

3CPM Aeropac

Advantages

- Fine fibre ensures that filter maintains its efficiency throughout its life in the system.
- Robust design
- Large dust holding capacity
- Suitable for variable airflow

Application: Built-up banks, rooftops, split systems, free-standing units, package systems and air handlers
Type: Compact Pleated Filter
Frame: Galvanised steel
Gasket: Neoprene
Media: Glass fiber
Rec. final pressure drop: 450 Pa
Max Temperature (°C): 70°C
Comment: UL 900
Microfine glass media formed into full pack depth pleats separated by corrugated aluminum separators

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2155001	3CPM-65-242412	MERV 11	M6	ePM10 70%	592x 592x 292	3400/ 110	12.3	8.6
2155002	3CPM-65-241212	MERV 11	M6	ePM10 70%	287x 592x 292	1700/ 110	5.8	6.4
2156001	3CPM-85-242412	MERV 13	F7	ePM1 55%	592x 592x 292	3400/ 145	12.3	8.6
2156002	3CPM-85-241212	MERV 13	F7	ePM1 55%	287x 592x 292	1700/ 145	5.8	6.4
2157003	3CPM-95-242412	MERV 14	F8	ePM1 70%	592x 592x 292	3400/ 160	12.3	8.6
2157002	3CPM-95-241212	MERV 14	F8	ePM1 70%	287x 592x 292	1700/ 160	5.8	6.4
2150002	3CPM-242412-60	MERV 11	M6	ePM10 70%	610x 610x 292	3400/ 75	15.7	8.6
2150001	3CPM-122412-60	MERV 11	M6	ePM10 70%	305x 610x 292	1700/ 75	7.8	6.4
2151007	3CPM-242412-90	MERV 13	F7	ePM1 55%	610x 610x 292	3400/ 110	15.7	8.6
2151008	3CPM-122412-90	MERV 13	F7	ePM1 55%	305x 610x 292	1700/ 110	7.8	6.4
2152003	3CPM-242412-95	MERV 14	F8	ePM1 70%	610x 610x 292	3400/ 135	15.7	8.6
2152004	3CPM-122412-95	MERV 14	F8	ePM1 70%	305x 610x 292	1700/ 135	7.8	6.4

3HCP8 Aeropac

Advantages

- Fine fibre ensures that filter maintains its efficiency throughout its life in the system
- Suitable for variable airflow
- High dust holding capacity
- Robust design

Application: Built-up filter banks, rooftops, split systems, freestanding units, package systems and air handlers
Type: Compact Pleated Filter
Frame: Galvanised steel
Media: Glass fiber
Rec. final pressure drop: 450 Pa
Max Temperature (°C): 90°C
Comment: Media: Microfine glass media formed into full pack depth pleats separated by corrugated aluminum
Comment: Fire Rating: UL 900

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2135001	3HCP8-65-242412 AEROPAC	MERV 11	M6	ePM10 70%	592x 592x 292	3400/ 110	10.8	8.6
2135002	3HCP8-65-122412 AEROPAC	MERV 11	M6	ePM10 70%	287x 592x 292	1700/ 110	6.4	6.4
2136001	3HCP8-85-242412 AEROPAC	MERV 13	F7	ePM1 55%	592x 592x 292	3400/ 150	10.8	8.6
2136002	3HCP8-85-241212 AEROPAC	MERV 13	F7	ePM1 55%	287x 592x 292	1700/ 150	5	6.4
2137001	3HCP8-95-242412 AEROPAC	MERV 14	F8	ePM1 70%	592x 592x 292	3400/ 160	10.8	8.6
2137002	3HCP8-95-241212 AEROPAC	MERV 14	F8	ePM1 70%	287x 592x 292	1700/ 160	5	6.4
2130002	3CPMHF-122412-60	MERV 11	M6	ePM10 70%	287x 592x 292	1700/ 95	5.6	6.4
2130003	3CPMHF-242412-60	MERV 11	M6	ePM10 70%	592x 592x 292	3400/ 95	13.1	8.6
2131001	3CPMHF-242412-90	MERV 13	F7	ePM1 55%	592x 592x 292	3400/ 130	13.1	8.6
2131002	3CPMHF-122412-90	MERV 13	F7	ePM1 55%	287x 592x 292	1700/ 130	5.6	6.4
2132001	3CPMHF-242412-95	MERV 14	F8	ePM1 70%	592x 592x 292	3400/ 155	13.1	8.6
2132002	3CPMHF-122412-95	MERV 14	F8	ePM1 70%	287x 592x 292	1700/ 155	5.6	6.4

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Megalam ProSafe

Advantages

- Prosafe certified for Pharma, Food Beverage
- 100% filter scan tested according to ISO29463
- Chemically resistant to decontamination and cleaning agent
- Microbial inert components acc. to ISO 846
- Tested for food safety acc. to EC 1935:2004
- Hygienic product acc. to VDI 6022 and ISO846
- Free of bisphenol-A, phthalate and formaldehyde
- Manufactured and packed in a controlled environment

Application: Hepa/ULPA filter for clean rooms and LAF benches
Frame: Anodized aluminium
Gasket: Silicone Gel, Seamless PU foamed gasket
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Grille, Upstream: Expanded metal painted (RAL 9016)
Grille, Downstream: Expanded metal painted (RAL 9016)
Rec. final pressure drop: 2x Initial pressure drop
Max. final pressure drop: MD: 500 Pa, MX: 600 Pa, MG:800 Pa
Max airflow: Nominal flow rate (if not, efficiency drops)
Max Temperature (°C): 70 °C
Relative Humidity max: 100%
Comment: All filter tested acc. to EN 1822 with individual protocol and packed in PE-film. Compliant with Prosafe** requirements. Other editions on request.
Fire rating: UL 900 (*Upon request)

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
15002002	Megalam PS MD13-305*610-10/22	H13	305x 610x 66	301/ 116	4,8	2,75
15002003	Megalam PS MD13-610*610-10/22	H13	610x 610x 66	603/ 115	9,7	4,66
15002005	Megalam PS MD13-914*610-10/22	H13	914x 610x 66	903/ 114	14,6	6,56
15002006	Megalam PS MD13-1219*610-10/22	H13	1219x 610x 66	1205/ 114	19,5	8,47
15210094	Megalam PS MD13LS-610*610*71-10/22	H13	610x 610x 71	603/ 115	9.7	5.17
15002202	Megalam PS MD14-305*610-10/22	H14	305x 610x 66	301/ 150	4,8	3,2
15002203	Megalam PS MD14-610*610-10/22	H14	610x 610x 66	603/ 140	9,7	5,4
15002205	Megalam PS MD14-914*610-10/22	H14	914x 610x 66	903/ 140	14.6	6.36
15002206	Megalam PS MD14-1219*610-10/22	H14	1219x 610x 66	1205/ 140	19.5	8.2
15002802	Megalam PS MX14-305*610-10/22	H14	305x 610x 90	301/ 105	6,6	3,9
15002803	Megalam PS MX14-610*610-10/22	H14	610x 610x 90	603/ 95	13,2	6,5
15002805	Megalam PS MX14-914*610-10/22	H14	914x 610x 90	903/ 95	19.9	7.62
15002806	Megalam PS MX14-1219*610-10/22	H14	1219x 610x 90	1205/ 95	26.6	9.83
15003402	Megalam PS MG14-305*610-10/22	H14	305x 610x 110	301/ 75	8,7	5,2
15003403	Megalam PS MG14-610*610-10/22	H14	610x 610x 110	603/ 65	17,5	8,6
15003405	Megalam PS MG14-914*610-10/22	H14	914x 610x 110	903/ 64	26.3	9.69
15003406	Megalam PS MG14-1219*610-10/22	H14	1219x 610x 110	1205/ 64	35.2	12.55
15002402	Megalam PS MD15-305*610-10/22	U15	305x 610x 66	301/ 160	4,8	3,2
15002403	Megalam PS MD15-610*610-10/22	U15	610x 610x 66	603/ 145	9.7	5,4
15002405	Megalam PS MD15-914*610-10/22	U15	914x 610x 66	903/ 145	17.1	6.9
15002406	Megalam PS MD15-1219*610-10/22	U15	1219x 610x 66	1205/ 145	22.7	8.92
15003002	Megalam PS MX15-305*610-10/22	U15	305x 610x 90	301/ 125	7,5	3,9
15003003	Megalam PS MX15-610*610-10/22	U15	610x 610x 90	603/ 115	15,2	6,5
15003005	Megalam PS MX15-914*610-10/22	U15	914x 610x 90	903/ 115	22.8	8.23
15003006	Megalam PS MX15-1219*610-10/22	U15	1219x 610x 90	1205/ 115	30.5	10.65
15003602	Megalam PS MG15-305*610-10/22	U15	305x 610x 110	301/ 90	9,3	5,2

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
15003603	Megalam PS MG15-610*610-10/22	U15	610x 610x 110	603/ 80	18,8	8,6
15003605	Megalam PS MG15-914*610-10/22	U15	914x 610x 110	903/ 80	28.2	9.42
15003606	Megalam MG15-1219x610-10/22	U15	1219x 610x 110	1205/ 80	37.8	12.19

** Pressure drop: ± 15 %*

Other sizes are available on request

Megalam Fabsafe

Advantages

- Developed for microelectronic cleanrooms and equipment
- Ideal for nanoparticle filtration (100 nm)
- No organic outgassing from test aerosol
- Ultra-low outgassing (dopant free) components
- 100% filter scan tested according to ISO29463
- Individual efficiency test reports
- High dust holding capacity
- Manufactured and packed in a controlled environment

Application: Microelectronic cleanrooms and equipment. Nanoparticle filtration
Frame: Anodized aluminium
Gasket: EPDM
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Grille, Upstream: Expanded metal painted
Grille, Downstream: Expanded metal painted
Rec. final pressure drop: MD: 500 Pa, MX: 600 pa, MG:800 Pa
Rec. final pressure drop: 2x Initial pressure drop
Max airflow: Nominal flow rate (if not, efficiency drops)
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Comment: Test: 100% individual scan test according to EN1822, IEST RP-CC007 or required standard
Test aerosol: PSL. Oil free
Fire rating: UL900 & FM Approved
Remarks: Many frame options and dimensions are available on request

Type	EN1822	Dimensions WxHxD (mm)	Pressure drop (Pa)	Filter Efficiency Particle d=20nm	Filter Efficiency Particle d=100-200nm	Filter Efficiency Particle d=300nm
Fabsafe MD H13	H13	1170x 1170x 66	110	≥99.99999%	≥99.95%	≥99.97%
Fabsafe MD H13	H13	1170x 570x 66	110	≥99.99999%	≥99.95%	≥99.97%
Fabsafe MD H14	H14	1170x 1170x 66	130	≥99.999999%	≥99.995%	≥99.997%
Fabsafe MD H14	H14	1170x 570x 66	130	≥99.999999%	≥99.995%	≥99.997%
Fabsafe MX H14	H14	1170x 1170x 90	90	≥99.999999%	≥99.995%	≥99.997%
Fabsafe MX H14	H14	1170x 570x 90	90	≥99.999999%	≥99.995%	≥99.997%
Fabsafe MG H14	H14	1170x 1170x 110	60	≥99.999999%	≥99.995%	≥99.999%
Fabsafe MG H14	H14	1170x 570x 110	60	≥99.999999%	≥99.995%	≥99.999%
Fabsafe MD U15	U15	1170x 1170x 66	140	≥99.9999999%	≥99.9995%	≥99.9997%
Fabsafe MD U15	U15	1170x 570x 66	140	≥99.9999999%	≥99.9995%	≥99.9997%
Fabsafe MX U15	U15	1170x 1170x 90	110	≥99.9999999%	≥99.9995%	≥99.9997%
Fabsafe MX U15	U15	1170x 570x 90	110	≥99.9999999%	≥99.9995%	≥99.9997%
Fabsafe MG U15	U15	1170x 1170x 110	80	≥99.9999999%	≥99.9995%	≥99.9999%
Fabsafe MG U15	U15	1170x 570x 110	80	≥99.9999999%	≥99.9995%	≥99.9999%
Fabsafe MX U16	U16	1170x 1170x 90	130	≥99.99999999%	≥99.99995%	≥99.99997%
Fabsafe MX U16	U16	1170x 570x 90	130	≥99.99999999%	≥99.99995%	≥99.99997%
Fabsafe MG U16	U16	1170x 1170x 110	90	≥99.99999999%	≥99.99995%	≥99.99999%
Fabsafe MG U16	U16	1170x 570x 110	90	≥99.99999999%	≥99.99995%	≥99.99999%

**Other sizes available on request*

Megalam ES Fabsafe

Advantages

- Developed for microelectronic cleanrooms and equipment
- No organic outgassing from test aerosol
- Ultra-low outgassing (dopant free) components
- 100% filter scan tested according to ISO29463
- Individual efficiency test reports
- Energy saving with low pressure drop PTFE media
- Manufactured and packed in a controlled environment

Application: Microelectronic cleanrooms and equipment. Low energy usage
Frame: Anodized aluminium
Gasket: EPDM
Media: Membrane
Separator: Hot-melt Separator Technology
Sealant: Polyurethane
Grille, Upstream: Expanded metal painted
Grille, Downstream: Expanded metal painted
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Comment: Test: 100% individual scan test according to EN1822, IEST RP-CC007 or required standard.
Test aerosol: PSL. Oil free.
Fire rating: UL900
Remarks: Many frame options and dimensions are available on request.

Type	EN1822	Dimensions WxHxD (mm)	Pressure drop (Pa)	Filter Efficiency Particle d=20nm	Filter Efficiency Particle d=100-200nm	Filter Efficiency Particle d=300nm
ES Fabsafe MD H14	H14	1170x 1170x 50	75	≥99.995%	≥99.995%	≥99.995%
ES Fabsafe MD H14	H14	1170x 570x 50	75	≥99.995%	≥99.995%	≥99.995%
ES Fabsafe MD H14	H14	1170x 1170x 66	60	≥99.995%	≥99.995%	≥99.995%
ES Fabsafe MD H14	H14	1170x 570x 66	60	≥99.995%	≥99.995%	≥99.995%
ES Fabsafe MX H14	H14	1170x 1170x 90	50	≥99.995%	≥99.995%	≥99.995%
ES Fabsafe MX H14	H14	1170x 570x 90	50	≥99.995%	≥99.995%	≥99.995%
ES Fabsafe MD U15	U15	1170x 1170x 50	90	≥99.9995%	≥99.9995%	≥99.9995%
ES Fabsafe MD U15	U15	1170x 570x 50	90	≥99.9995%	≥99.9995%	≥99.9995%
ES Fabsafe MD U15	U15	1170x 1170x 66	75	≥99.9995%	≥99.9995%	≥99.9995%
ES Fabsafe MD U15	U15	1170x 570x 66	75	≥99.9995%	≥99.9995%	≥99.9995%
ES Fabsafe MX U15	U15	1170x 1170x 90	65	≥99.9995%	≥99.9995%	≥99.9995%
ES Fabsafe MX U15	U15	1170x 570x 90	65	≥99.9995%	≥99.9995%	≥99.9995%
ES Fabsafe MD U16	U16	1170x 1170x 66	105	≥99.99995%	≥99.99995%	≥99.99995%
ES Fabsafe MD U16	U16	1170x 570x 66	105	≥99.99995%	≥99.99995%	≥99.99995%
ES Fabsafe MX U16	U16	1170x 1170x 90	85	≥99.99995%	≥99.99995%	≥99.99995%
ES Fabsafe MX U16	U16	1170x 570x 90	85	≥99.99995%	≥99.99995%	≥99.99995%

**Other sizes available on request*

Silent Hood

Advantages

- Compact filter-diffuser for clean room
- Ready to install
- Low noise
- Test port
- Non-slip collar design
- Roomside adjustable diffuser disc

Application: Final filtration for clean rooms
Type: Hood Filter
Frame: Anodized aluminium
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Grille, Downstream: Expanded metal painted (RAL 9010)
MPPS efficiency: H13:≥99.95%, H14:≥99.995%
Max Temperature (°C): 70°C
Installation Options: Integrated suspension eyes.
Comment: Diffuser disc: Perforated aluminium
Terminal: Collar with outer dia. 305 mm (12in) or 210 mm (10in) depending on the model
Test: 100% individually scanned in accordance with EN 1822
Fire rating: UL 900, FM 4920 approval on request
Maximum flow rate: See table, use nominal values otherwise a reduction in efficiency may occur

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
15300001	MD13-HD10-610x610-01/02	H13	610x 610x 110	605/ 130	9.7	13
15300002	MD13-HD10-914x610-01/02	H13	914x 610x 110	905/ 130	14.6	16
15300003	MD13-HD10-1219x610-01/02	H13	1219x 610x 110	1205/ 130	19.5	19
15301001	MD13-HD12-610x610-01/02	H13	610x 610x 110	605/ 130	9.7	13
15301002	MD13-HD12-914x610-01/02	H13	914x 610x 110	905/ 130	14.6	16
15301003	MD13-HD12-1219x610-01/02	H13	1219x 610x 110	1205/ 130	19.5	19
15300101	MD14-HD10-610x610-01/02	H14	610x 610x 110	605/ 155	9.7	13
15300102	MD14-HD10-914x610-01/02	H14	914x 610x 110	905/ 155	14.6	16
15300103	MD14-HD10-1219x610-01/02	H14	1219x 610x 110	1205/ 155	19.5	19
15301101	MD14-HD12-610x610-01/02	H14	610x 610x 110	603/ 155	9.7	13
15301102	MD14-HD12-914x610-01/02	H14	914x 610x 110	905/ 155	14.6	16
15301103	MD14-HD12-1219x610-01/02	H14	1219x 610x 110	1205/ 155	19.5	19
15300401	MX14-HD10-610x610-01/02	H14	610x 610x 133	605/ 110	13.2	15
15300402	MX14-HD10-914x610-01/02	H14	914x 610x 133	905/ 110	19.9	19
15300403	MX14-HD10-1219x610-01/02	H14	1219x 610x 133	1205/ 110	26.6	22
15301402	MX14-HD12-914x610-01/02	H14	914x 610x 133	905/ 110	19.9	19
15301401	MX14-HD12-610x610-01/02	H14	610x 610x 133	605/ 110	13.2	15
15301403	MX14-HD12-1219x610-01/02	H14	1219x 610x 133	1205/ 110	26.6	22
15300701	MG14-HD10-610x610-01/02	H14	610x 610x 155	605/ 80	17.7	18
15300703	MG14-HD10-1219x610-01/02	H14	1219x 610x 155	1205/ 80	34.7	26
15301701	MG14-HD12-610x610-01/02	H14	610x 610x 155	605/ 80	17.1	18
15301703	MG14-HD12-1219x610-01/02	H14	1219x 610x 155	1205/ 80	34.7	26
15401001	MD13-HL10-610x610-01/02	H13	610x 610x 110	605 / 130	9,9	13
15401002	MD13-HL10-914x610-01/02	H13	914x 610x 110	905 / 125	14,9	16
15401003	MD13-HL10-1219x610-01/02	H13	1219x 610x 110	1205/ 125	19,9	19
15403001	MD13-HL12-610x610-01/02	H13	610x 610x 110	605/ 130	9,9	13
15403002	MD13-HL12-914x610-01/02	H13	914x 610x 110	905/ 125	14,9	16
15403003	MD13-HL12-1219x610-01/02	H13	1219x 610x 110	1205/ 125	19,9	19
15401101	MD14-HL10-610x610-01/02	H14	610x 610x 110	605/ 155	9,9	13
15401102	MD14-HL10-914x610-01/02	H14	914x 610x 110	905/ 155	14,9	16
15401103	MD14-HL10-1219x610-01/02	H14	1219x 610x 110	1205/ 155	19,9	19
15403101	MD14-HL12-610x610-01/02	H14	610x 610x 110	605/ 155	9,9	13

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
15403102	MD14-HL12-914x610-01/02	H14	914x 610x 110	905/ 155	14,9	16
15403103	MD14-HL12-1219x610-01/02	H14	1219x 610x 110	1205/ 155	19,9	19
15401401	MX14-HL10-610x610-01/02	H14	610x 610x 133	605/ 110	13,4	13
15401402	MX14-HL10-914x610-01/02	H14	914x 610x 133	905/ 110	20,2	16
15401403	MX14-HL10-1219x610-01/02	H14	1219x 610x 133	1205/ 110	24	19
15403401	MX14-HL12-610x610-01/02	H14	610x 610x 133	605/ 110	13,4	13
15403402	MX14-HL12-914x610-01/02	H14	914x 610x 133	905/ 110	20,2	16
15403403	MX14-HL12-1219x610-01/02	H14	1219x 610x 133	1205/ 110	27	19

Absolute VGXL, VGXXL ProSafe

Advantages

- 23% energy savings compared to market average
- Lowest weight in industry
- Strong and airtight frame
- Hygienic product acc. to VDI 6022 and ISO846
- Approved to EC1935/2004 for food contact
- Free of BPA, formaldehyde and phthalates
- Tested resistance against disinfectant and cleaning procedures
- Compact, lightweight and fully incinerable for optimised waste management
- Optimised for bag-in bag-out safe changes
- Machine-tested leak-free construction

Application: High airflow filter for make-up air and exhaust air applications
Type: V-Bank Box Filter
Frame: ABS
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
MPPS efficiency: E10(≥85%), E11(≥95%), E12(≥99,5%), H13(≥99,95%), H14(≥99,995%)
Rec. final pressure drop: 2x Initial pressure drop
Max. final pressure drop: 600 Pa
Max airflow: 1,1 x nominal flow
Max Temperature (°C): 70° C
Relative Humidity max: 100%
Installation Options: CamSafe
Comment: Compliant with Prosafe** requirements.
Fire rating: UL 900

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow (m³/h)	Pressure drop (m³/h/Pa)***	Area (m²)	Weight (kg)
ABV3022131001	VGXL10-610x305x292-P-PS	E10	610x 305x 292	1500/1800	150/190	10,9	4,9
ABV6022121001	VGXL10-610x610x292-P-PS	E10	610x 610x 292	3400/4000	150/190	22,0	7,7
ABV3031131001	VGXXL10-610x305x292-P-PS	E10	610x 305x 292	2300	210	14,9	5,3
ABV6031121001	VGXXL10-610x610x292-P-PS	E10	610x 610x 292	5000	210	30,2	8,5
ABV3122131001	VGXL11-610x305x292-P-PS	E11	610x 305x 292	1500/1800	170/210	18,9	5.7
ABV6122121001	VGXL11-610x610x292-P-PS	E11	610x 610x 292	3400/4000	170/210	38.9	9.3
ABV3222131001	VGXL12-610x305x292-P-PS	E12	610x 305x 292	1500/1800	180/ 220	18,9	5,7
ABV6222121001	VGXL12-610x610x292-P-PS	E12	610x 610x 292	3400/4000	180/220	38,3	9,3
ABV3322131001	VGXL13-610x305x292-P-PS	H13	610x 305x 292	1500/1800	200/240	20,5	5,8
ABV6322121001	VGXL13-610x610x292-P-PS	H13	610x 610x 292	3400/4000	200/240	41,6	9,6
ABV3332131001	VGXXL13-610x305x292-P-PS	H13	610x 305x 292	2300	400	20,5	5,8
ABV6332121001	VGXXL13-610x610x292-P-PS	H13	610x 610x 292	5000	400	41,6	9,6
ABV3422131001	VGXL14-610x305x292-P-PS	H14	610x 305x 292	1500	250	20,5	5,8
ABV6422121001	VGXL14-610x610x292-P-PS	H14	610x 610x 292	3400	250	41,6	9,6
ABV3432131001	VGXXL14-610x305x292-P-PS	H14	610x 305x 292	1800	310	20,5	5,8
ABV6432121001	VGXXL14-610x610x292-P-PS	H14	610x 610x 292	4000	310	41,6	9,6

** Not available with pressure test "DIN" gasket*
*** All certificates and further information are available on www.camfil.com/prosafe*
**** Pressure drop: ± 10 %*

Absolute VEXL, VEXXL

Advantages

- For very high airflows (up to 3,7 m/s)
- 23% Energy savings compared to market average
- Lightest V-bank steel HEPA in the industry
- 100% leak-free : individually scan tested
- Strong and airtight frame
- Optimized for Bag-in Bag-out safe change
- Most convenient handling

Application: High airflow filter for make-up air and exhaust air applications
Frame: Galvanised steel
Gasket: Seamless PU foamed gasket
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
MPPS efficiency: E10(≥85%), E11(≥95%), E12(≥99,5%), H13 (≥99,95%), H14 (≥99,995%)
Rec. final pressure drop: 2x Initial pressure drop
Max. final pressure drop: 600 Pa
Max airflow: 1,1 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: CamBox, CamSafe, CamCube
Comment: Special versions on request (e.g. stainless steel frame or high temperature version 120°C). Fire rating: UL 900

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow (m³/h)	Pressure drop (m³/h/Pa)*	Area (m²)	Weight (kg)
ABV3021131000	VEXL10-610x305x292-P	E10	610x 305x 292	1500/1800	150/190	10.9	6,0
ABV6021121000	VEXL10-610x610x292-P	E10	610x 610x 292	3400/4000	150/190	22	9,0
ABV3031131000	VEXXL10-610x305x292-P	E10	610x 305x 292	2300	210	14.9	6,4
ABV6031121000	VEXXL10-610x610x292-P	E10	610x 610x 292	5000	210	30.2	9,9
ABV3121131000	VEXL11-610x305x292-P	E11	610x 305x 292	1500/1800	170/210	18,9	6.8
ABV6121121000	VEXL11-610x610x292-P	E11	610x 610x 292	3400/4000	170/210	38.3	10.7
ABV3221131000	VEXL12-610x305x292-P	E12	610x 305x 292	1500/1800	180/220	18.9	6,8
ABV6221121000	VEXL12-610x610x292-P	E12	610x 610x 292	3400/4000	180/220	38.3	10,7
ABV3321131000	VEXL13-610x305x292-P	H13	610x 305x 292	1500/1800	200/240	20.5	6,9
ABV6321121000	VEXL13-610x610x292-P	H13	610x 610x 292	3400/4000	200/240	41.6	11,0
ABV3331131000	VEXXL13-610x305x292-P	H13	610x 305x 292	2300	400	20.5	6,9
ABV6331121000	VEXXL13-610x610x292-P	H13	610x 610x 292	5000	400	41.6	11,0
ABV3421131000	VEXL14-610x305x292-P	H14	610x 305x 292	1500	250	20.5	6,9
ABV6421121000	VEXL14-610x610x292-P	H14	610x 610x 292	3400	250	41.6	11,0
ABV3431131000	VEXXL14-610x305x292-P	H14	610x 305x 292	1800	310	20.5	6,9
ABV6431121000	VEXXL14-610x610x292-P	H14	610x 610x 292	4000	310	41.6	11,0

** Pressure drop ± 10%*
UL900 per Underwriters Laboratories

Absolute VGXL ProSafe

Advantages

- 23% energy savings compared to market average
- Lowest weight in the industry
- Strong and airtight frame
- Prosafe certified:
- · Hygienic product acc. to VDI 6022 and ISO846
- · Tested for food safety acc. to EC 1935:2004
- · Free of BPA, formaldehyde and phthalates
- · Tested resistance against disinfectant and cleaning agents
- Compact, lightweight and fully incinerable for optimised waste management
- Optimised for bag-in bag-out safe changes
- 100% leak-free : individually scantested

Application: High airflow filter for make-up air and exhaust air applications
Type: V-Bank Box Filter
Frame: ABS
Gasket: Seamless PU foamed gasket
Media: Glass fiber
Separator: Hot-melt
Rec. final pressure drop: 2x Initial pressure drop
Max. final pressure drop: 600 Pa
Max airflow: 1,1 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: CamSafe, AHU
Comment: Compliant with Prosafe** requirements.
Fire rating: UL 900

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow (m³/h)	Pressure drop (m³/h/Pa)**	Area (m²)	Weight (kg)
ABV2022131001	VGXL10-595x289x292-P-PS	E10	595x 289x 292	1500/1800	170/210	10,3	4,6
ABV5022121001	VGXL10-595x595x292-P-PS	E10	595x 595x 292	3400/4000	170/210	21,5	7,4
ABV2122131001	VGXL11-595x289x292-P-PS	E11	595x 289x 292	1500/1800	190/230	17.5	5,3
ABV5122121001	VGXL11-595x595x292-P-PS	E11	595x 595x 292	3400/4000	190/230	37.3	8,8
ABV2222131001	VGXL12-595x289x292-P-PS	E12	595x 289x 292	1500/1800	200/240	17,9	5,3
ABV5222121001	VGXL12-595x595x292-P-PS	E12	595x 595x 292	3400/4000	200/240	37,3	9,0
ABV2322131001	VGXL13-595x289x292-P-PS	H13	595x 289x 292	1500	220	19,4	5,5
ABV5322121001	VGXL13-595x595x292-P-PS	H13	595x 595x 292	3400	220	40,5	9,3
ABV2422131001	VGXL14-595x289x292-P-PS	H14	595x 289x 292	1500	270	19,4	5,5
ABV5422121001	VGXL14-595x595x292-P-PS	H14	595x 595x 292	3400	270	40,5	9,3

** All certificates and further information are available on www.camfil.com/prosafe*
*** Pressure drop: ± 10 %*

Absolute CE

Advantages

- Low to medium airflow (up to 1,8 m/s)
- Galvanised metal frame for stability
- 100% leakfree, individually scan tested

Application: Very high efficiency final filtration in air conditioning systems housings·ducts or diffusers
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
MPPS efficiency: E11: ≥ 95%, H13: ≥ 99.95%
Max. final pressure drop: 500 Pa
Max Temperature (°C): 70°C
Installation Options: Mounting systems: Ducts, Diffusers, CAMSAFE
Comment: Fire rating: DIN 53438 Class Fl

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1400508	CED11-305x305x150-P0	E11	305x 305x 150	290/ 125	2,2	4
1400506	CED11-457x457x150-P0	E11	457x 457x 150	660/ 125	4,9	10
1400505	CED11-575x575x150-P0	E11	575x 575x 150	1055/ 125	7,8	11
1400507	CED11-305x610x150-P0	E11	305x 610x 150	590/ 125	4,4	6
1400504	CED11-610x610x150-P0	E11	610x 610x 150	1190/ 125	8,9	12
1400503	CED11-762x610x150-P0	E11	762x 610x 150	1490/ 125	11,1	13,5
1400502	CED11-914x610x150-P0	E11	914x 610x 150	1790/ 125	13,3	15
1400501	CED11-1219x610x150-P0	E11	1219x 610x 150	2380/ 125	17,7	18
1400558	CEX11-305x305x150-P0	E11	305x 305x 150	380/ 125	3	4
1400556	CEX11-457x457x150-P0	E11	457x 457x 150	865/ 125	6,9	10
1400555	CEX11-575x575x150-P0	E11	575x 575x 150	1385/ 125	11	11
1400557	CEX11-305x610x150-P0	E11	305x 610x 150	770/ 125	6,1	6
1400554	CEX11-610x610x150-P0	E11	610x 610x 150	1560/ 125	12,4	12
1400553	CEX11-762x610x150-P0	E11	762x 610x 150	1950/ 125	15,5	13,5
1400552	CEX11-914x610x150-P0	E11	914x 610x 150	2335/ 125	18,6	15
1400551	CEX11-1219x610x150-P0	E11	1219x 610x 150	3120/ 125	24,8	18
1400654	CEG11-305x610x292-P0	E11	305x 610x 292	950/ 125	7,2	7,2
1400653	CEG11-457x610x292-P0	E11	457x 610x 292	1420/ 125	10,8	9,9
1400652	CEG11-610x610x292-P0	E11	610x 610x 292	1900/ 125	14,4	12,5
1400651	CEG11-762x610x292-P0	E11	762x 610x 292	2380/ 125	18	16
1400704	CET11-305x610x292-P0	E11	305x 610x 292	1190/ 125	10,9	7,2
1400703	CET11-457x610x292-P0	E11	457x 610x 292	1780/ 125	16,4	10
1400702	CET11-610x610x292-P0	E11	610x 610x 292	2380/ 125	21,8	13
1400701	CET11-762x610x292-P0	E11	762x 610x 292	2975/ 125	27	16,2
1400008	CED13-305x305x150-P0	H13	305x 305x 150	317/ 250	2,4	4
1400006	CED13-457x457x150-P0-S	H13	457x 457x 150	726/ 250	5,5	10
1400005	CED13-575x575x150-P0-S	H13	575x 575x 150	1161/ 250	8,7	11
1400007	CED13-305x610x150-P0-S	H13	305x 610x 150	645/ 250	4,9	6
1400004	CED13-610x610x150-P0-S	H13	610x 610x 150	1305/ 250	9,8	12
1400003	CED13-762x610x150-P0-S	H13	762x 610x 150	1635/ 250	12,3	13,5
1400002	CED13-914x610x150-P0-S	H13	914x 610x 150	1958/ 250	14,7	15
1400001	CED13-1219x610x150-P0-S	H13	1219x 610x 150	2618/ 250	19,7	18
1400058	CEX13-305x305x150-P0	H13	305x 305x 150	380/ 250	3,2	4
1400056	CEX13-457x457x150-P0-S	H13	457x 457x 150	867/ 250	7,4	10
1400055	CEX13-575x575x150-P0-S	H13	575x 575x 150	1384/ 250	12	11
1400057	CEX13-305x610x150-P0-S	H13	305x 610x 150	773/ 250	6,6	6
1400054	CEX13-610x610x150-P0-S	H13	610x 610x 150	1565/ 250	13,4	12

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1400053	CEX13-762x610x150-P0-S	H13	762x 610x 150	1957/ 250	16,7	13,5
1400052	CEX13-914x610x150-P0-S	H13	914x 610x 150	2348/ 250	20,1	15
1400051	CEX13-1219x610x150-P0-S	H13	1219x 610x 150	3131/ 250	27,1	18
1400154	CEG13-305x610x292-P0-S	H13	305x 610x 292	893/ 250	7,8	7
1400153	CEG13-457x610x292-P0-S	H13	457x 610x 292	1340/ 250	11,7	9,9
1400152	CEG13-610x610x292-P0-S	H13	610x 610x 292	1804/ 250	15,7	12,5
1400151	CEG13-762x610x292-P0-S	H13	762x 610x 292	2251/ 250	19,6	16
1400204	CET13-305x610x292-P0-S	H13	305x 610x 292	1230/ 250	11,7	7
1400203	CET13-457x610x292-P0-S	H13	457x 610x 292	1850/ 250	17,5	9,9
1400202	CET13-610x610x292-P0-S	H13	610x 610x 292	2485/ 250	23,5	12,5
1400201	CET13-762x610x292-P0-S	H13	762x 610x 292	3100/ 250	29,4	16

**Other sizes are available on request*

Absolute CM

Advantages

- Low to medium airflow (up to 1,8 m/s)
- Completely incinerable, no metal used
- 100% leakfree, individually scan tested

Application: HEPA filter for standard applications
Frame: MDF
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
MPPS efficiency: E11: ≥ 95%,H13(≥99,95%)
Rec. final pressure drop: 2x Initial pressure drop
Max. final pressure drop: 800 Pa
Max airflow: Nominal flow rate (if not, efficiency drops)
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Comment: All filter tested acc. to EN 1822 with individual protocol
Other options available: Galvanized frame on request

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1400758	CMD11-305x305x150-PO	E11	305x 305x 150	236/ 125	1.8	4
1400756	CMD11-457x457x150-PO	E11	457x 457x 150	580/ 125	4.3	10
1400755	CMD11-575x575x150-PO	E11	575x 575x 150	950/ 125	7.1	11
1400757	CMD11-305x610x150-PO	E11	305x 610x 150	505/ 125	3.8	6
1400754	CDM11-610x610x150-PO	E11	610x 610x 150	1080/ 125	8	12
1400753	CMD11-762x610x150-PO	E11	762x 610x 150	1370/ 125	10.1	13.5
1400752	CMD11-914x610x150-PO	E11	914x 610x 150	1650/ 125	12.3	15
1400751	CMD11-1219x610x150-PO	E11	1219x 610x 150	2220/ 125	16.5	18
1400808	CMX11-305x305x150-PO	E11	305x 305x 150	310/ 125	2.5	4
1400806	CMX11-457x457x150-PO	E11	457x 457x 150	760/ 125	6	10
1400805	CMX11-575x575x150-PO	E11	575x 575x 150	1245/ 125	9.9	11
1400807	CMX11-305x610x150-PO	E11	305x 610x 150	668/ 125	5.3	6
1400804	CMX11-610x610x150-PO	E11	610x 610x 150	1410/ 125	11.2	12
1400803	CMX11-762x610x150-PO	E11	762x 610x 150	1788/ 125	14.2	12
1400802	CMX11-914x610x150-PO	E11	914x 610x 150	2150/ 125	17.1	15
1400801	CMX11-1219x610x150-PO	E11	1219x 610x 150	2900/ 125	23	18
1400904	CMG11-305x610x292-PO	E11	305x 610x 292	815/ 125	6.2	7.2
1400903	CMG11-457x610x292-PO	E11	457x 610x 292	1265/ 125	9.6	9.6
1400902	CMG11-610x610x292-PO	E11	610x 610x 292	1735/ 125	13.1	13
1400901	CMG11-762x610x292-PO	E11	762x 610x 292	2180/ 125	16.6	16.5
1400954	CMT11-305x610x292-PO	E11	305x 610x 292	1015/ 125	9.2	7.2
1400953	CMT11-457x610x292-PO	E11	457x 610x 292	1585/ 125	14.4	10
1400952	CMT11-610x610x292-PO	E11	610x 610x 292	2170/ 125	19,8	13,0
1400951	CMT11-762x610x292-PO	E11	762x 610x 292	2725/ 125	25	16.2
1400258	CDM13-305x305x150-PO	H13	305x 305x 150	258/ 250	1.9	4
1400256	CDM13-457x457x150-PO-S	H13	457x 457x 150	636/ 250	4.8	10
1400255	CDM13-575x575x150-PO-S	H13	575x 575x 150	1046/ 250	7.9	11
1400257	CMD13-305X610X150-PO-S	H13	305x 610x 150	553/ 250	4.2	6
1400254	CMD13-610X610X150-PO-S	H13	610x 610x 150	1183/ 250	8.9	12
1400253	CMD13-762x610x150-PO-S	H13	762x 610x 150	1497/ 250	11.3	13.5
1400252	CMD13-914x610x150-PO-S	H13	914x 610x 150	1805/ 250	13.6	15
1400251	CMD13-1219x610x150-PO-S	H13	1219x 610x 150	2434/ 250	18.3	18
1400308	CMX13-305x305x150-PO	H13	305x 305x 150	310/ 250	2.7	4
1400306	CMX13-457x457x150-PO-S	H13	457x 457x 150	760/ 250	6.5	8
1400305	CMX13-575x575x150-PO-S	H13	575x 575x 150	1247/ 250	10.7	10
1400307	CMX13-305x610x150-PO-S	H13	305x 610x 150	664/ 250	5.7	6

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1400304	CMX13-610x610x150-PO-S	H13	610x 610x 150	1419/ 250	12.1	12
1400303	CMX13-762x610x150-PO-S	H13	762x 610x 150	1793/ 250	15.3	13.5
1400302	CMX13-914x610x150-PO-S	H13	914x 610x 150	2166/ 250	18.5	15
1400301	CMX13-1219x610x150-PO-S	H13	1219x 610x 150	2912/ 250	24.9	18
1400404	CMG13-305x610x292-PO-S	H13	305x 610x 292	770/ 250	6.7	7
1400403	CMG13-457x610x292-PO-S	H13	457x 610x 292	1210/ 250	10.5	9.9
1400402	CMG13-610x610x292-PO-S	H13	610x 610x 292	1635/ 250	14.2	12.5
1400401	CMG13-762x610x292-PO-S	H13	762x 610x 292	2075/ 250	18.1	16
1400454	CMT13-305x610x292-PO-S	H13	305x 610x 292	1060/ 250	10.1	7.2
1400453	CMT13-457X610X292-PO-S	H13	457x 610x 292	1670/ 250	15.8	10
1400452	CMT13-610X610X292-PO-S	H13	610x 610x 292	2250/ 250	21.3	13
1400451	CMT13-762X610X292-PO-S	H13	762x 610x 292	2855/ 250	27.1	16.2

Pressure drop: ±10%
Type -P = PU gasket
Other sizes are available on request

Absolute DE

Advantages

- High airflow (2,5 m/s)
- Scanable flat media pack surface
- Galvanized filter frame
- 100% leakfree, individually scan tested

Application: HEPA-filter for high air flows
Frame: Galvanised steel
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Rec. final pressure drop: 1000 Pa
Max airflow: Nominal flow rate (if not, efficiency drops)
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Comment: Fire rating: DIN 53438 Class Fl

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1408031	DE13-305x610x292-P0-S	H13	305x 610x 292	1500/ 250	19,5	13
1408032	DE13-610x610x292-P0-S	H13	610x 610x 292	3400/ 250	39,6	16
1408033	DE13-762x610x292-P0-S	H13	762x 610x 292	3750/ 250	50,1	20
1408034	DE14-305x610x292-P0-S	H14	305x 610x 292	1500/ 290	19,5	13
1408035	DE14-610x610x292-P0-S	H14	610x 610x 292	3400/ 290	39,6	16
1408036	DE14-762x610x292-P0-S	H14	762x 610x 292	3750/ 290	50,1	20

**Other sizes are available on reques*
** Frame is available in Electrozinc*

Absolute DG

Advantages

- High airflow (2,5 m/s)
- Scanable flat media pack surface
- Lightweight and fully incinerable
- 100% leakfree, individually scan tested
- Compliant to VDI 6022

Application: HEPA-Filter for high air flows
Frame: ABS
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
MPPS efficiency: H13(≥99,95%), H14(≥99,995%) acc. to EN1822
Rec. final pressure drop: 2x Initial pressure drop
Max. final pressure drop: 1000 Pa
Max airflow: Nominal flow rate (if not, efficiency drops)
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Comment: All filter tested acc. to EN 1822 with individual protocol.
Fire rating: DIN 53438 Class F1

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1408037	DG13-305x610x292-PO-OW-V	H13	305x 610x 292	1500/ 250	19.8	8.5
1408038	DG13-610x610x292-PO-OW-V	H13	610x 610x 292	3000/ 250	39,6	12,0
1408039	DG13-762x610x292-PO-OW-V	H13	762x 610x 292	3750/ 250	50,1	15,5
1408040	DG14-305x610x292-PO-OW-V	H14	305x 610x 292	1300/ 250	19.8	8.5
1408041	DG14-610x610x292-PO-OW-V	H14	610x 610x 292	2600/ 250	39.9	12
1408042	DG14-762x610x292-PO-OW-V	H14	762x 610x 292	3300/ 250	50.1	15.5

Other dimensions on demand
Pressure drop: +- 15%
Type P = gasket on in let air side
Type W-V = filter with handle and grid

Absolute VGHF

Advantages

- High airflow (up to 2,3m/s)
- Compact HEPA filter with header frame
- Completely incinerable
- Easy Hepa upgrade of AHU

Application: EPA/HEPA final filtration in air conditioning systems and industrial processes
Frame: ABS; header frame, 25mm
Gasket: Polyurethane, endless foamed, Flat gasket
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
MPPS efficiency: E10(≥85%), H13(≥99,95%)
Rec. final pressure drop: 2x Initial pressure drop
Max. final pressure drop: 500 Pa
Max airflow: Nominal flow rate (if not, efficiency drops)
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available. Type 8 and FC housings.
Comment: All filter auto-tested acc. EN 1822 and individually packed in PE-foil. Other editions on request

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2430003	VGHF10-592X287X300	E10	592x 287x 300	1700/ 250	8.4	3
2430002	VGHF10-592X490X300	E10	592x 490x 300	2850/ 250	15.2	4
2430001	VGHF10-592X592X300	E10	592x 592x 300	4000/ 250	18.5	5
2440002	VGHF13-592x287x300-OP-S	H13	592x 287x 300	1350/ 250	13.1	3
2440003	VGHF13-592x490x300-OP-S	H13	592x 490x 300	2450/ 250	24.2	4
2440001	VGHF13-592x592x300-OP-S	H13	592x 592x 300	3000/ 250	29.6	5

Pressure drop: ± 10%
Gasket available on request

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Compact Filters (250°C)
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Sofilair HT 120-H13

Advantages

- High Temperature HEPA Filter
- For very high airflows (up to 3,7 m/s)
- Lightest V-bank steel HEPA in the industry
- 100% leak-free : individually scan tested
- Strong and airtight frame
- Maximum continuous operating temperature 120°C
- High filter surface area offers low pressure drop for energy savings and longer life

Application: Industry and hospitals
Frame: Galvanised steel
Gasket: EPDM
Media: Glass fiber
Separator: Glass fiber
Sealant: Polyurethane
Max Temperature (°C): 120°C
Installation Options: Mounting systems: FCBL-A housing
Comment: Temperature: 120°C maximum continuous

Art. No.	Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1564.01.00	SFR120-E-2500-H13	H13	610x 610x 292	2500/ 250	24	19
1568.01.50	SFR120-E-1300-H13	H13	289x 595x 292	1300/ 250	16	12
1567.01.50	SFR120-E-3200-H13	H13	595x 595x 292	3200/ 250	38	22
1566.01.00	SFR120-E-1500-H13	H13	305x 610x 292	1500/ 250	16	13
1561.01.00	SFR120-E-3400-H13	H13	610x 610x 292	3400/ 250	33	20
1561.02.00	SFR120-E-4000-H13	H13	610x 610x 292	4000/ 250	40	23

Airopac HT-HF

Advantages

- High temperature compact fine filter
- Free of paint effecting substances
- Long filter life time
- Maximum continuous operating temperature 250°C

Application: Paint bake ovens and other high temperature applications
Frame: Galvanised steel
Gasket: Glass fibre cord
Media: Glass fiber
Separator: Aluminium
Sealant: Glass fiber
Dimensions: Filter front dimensions according EN 15805
Max Temperature (°C): 260 °C
Temperature max. (peak): 400 °C
Relative Humidity max: 100%
Comment: Temperature: 260 °C continuously with peaks up to 400°C

High efficiency, high temperature, silicon free compact filter.

Art. No.	Type	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2181001	3CPM-HT-122412-90	F8	ePM1 70%	305x 610x 292	1700/ 120	7.7	5.6
2181002	3CPM-HT-242412-90	F8	ePM1 70%	610x 610x 292	3400/ 110	15.9	9.5
2181004	3CPM-HT-242406-90	F8	ePM1 70%	610x 610x 150	1700/ 65	7.8	5.6
2181005	3CPM-HT-122403-90	F8	ePM1 70%	305x 610x 78	750/ 80	2.4	2
2181006	3CPM-HT-242403-90	F8	ePM1 70%	610x 610x 78	1500/ 80	4.9	4
2181007	3CPM-HT-305*610*52-90	F8	ePM1 70%	305x 610x 52	750/ 90	2.7	1.8
2181008	3CPM-HT-610*610*52-90	F8	ePM1 70%	610x 610x 52	1500/ 90	5.4	3.6
2181009	3CPM-HT-480*480*78-90	F8	ePM1 70%	480x 480x 78	800/ 80	2.3	2.1
2181010	3CPM-HT-915*457*78-90	F8	ePM1 70%	915x 457x 78	2000/ 100	5.7	4.5
2181011	3CPM-HT-762 *457*78-90	F8	ePM1 70%	762x 457x 78	1250/ 80	3.6	3.8
2191001	3CPM-HT-HF-242412-90	F8	ePM1 70%	592x 592x 292	3000/ 150	13.3	8.3
2190001	3CPM-HT-HF-242412-60	M6	ePM10 70%	592x 592x 292	3000/ 105	12,6	8,3
2180001	3CPM-HT-122412-60	M6	ePM10 70%	305x610x292	1700/80	7,7	5,6
2180002	3CPM-HT-242412-60	M6	ePM10 70%	610x610x292	3400/75	15,9	9,5
2180004	3CPM-HT-242406-60	M6	ePM10 70%	610x 610x 150	1700/ 30	7,8	5,6
2180006	3CPM-HT-242403-60	M6	ePM10 70%	610x 610x 78	1500/ 30	4,3	4
2180005	3CPM-HT-122403-60	M6	ePM10 70%	305x 610x 78	750/ 30	2,1	2

Outer dimensions of the filter due to the Screw Heads + 7 mm in width

Absolute 1FRSI

Advantages

- High temperature HEPA Filter
- High air flow (1,5m/s)
- Maximum continuous operating temperature 250°C
- 100% leak-free: individually scan tested at 20°C
- High mechanical stability

Application: Protection for clean processes at high temperatures
Frame: Stainless steel
Gasket: Silicone
Media: Glass fiber
Separator: Aluminium
Sealant: Silicon HT
MPPS efficiency: H13(≥99,95%)
Max. final pressure drop: 500 Pa
Max Temperature (°C): 250°C
Relative Humidity max: 100%
Comment: Please note the installation and assembly instructions!

Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1FRSI-25-1SIHT	H13	203x 203x 78	50/ 250	0,5	2,5
1FRSI-50-1SIHT	H13	203x 203x 150	90/ 250	0,9	3,1
1FRSI-110-1SIHT	H13	305x 305x 150	250/ 250	2,4	4,0
1FRSI- 200-1SIHT	H13	305x 305x 292	410/ 250	5,1	5,1
1FRSI- 220-1SIHT	H13	305x 610x 150	540/ 250	5,0	7,9
1FRSI- 300-1SIHT	H13	457x 457x 150	620/ 250	5,9	8,5
1FRSI- 450-1SIHT	H13	305x 610x 292	900/ 250	10,4	15,6
1FRSI- 600-1SIHT	H13	610x 610x 150	1180/ 250	10,9	11,4
1FRSI- 725-1SIHT	H13	457x 610x 292	1420/ 250	16,3	18,0
1FRSI- 830-1SIHT	H13	762x 610x 150	1500/ 250	13,7	13,5
1FRSI- 980-1SIHT	H13	915x 610x 150	1800/ 250	16,8	15,8
1FRSI-1000-1SIHT	H13	610x 610x 292	1960/ 250	22,5	16,5
1FRSI-1250-1SIHT	H13	762x 610x 292	2500/ 250	28,4	23,5
1FRSI-610x457x150-1SIHT	H13	610x 457x 150	860/ 250	7,8	8,4
1FRSI-457x457x292-1SIHT	H13	457x 457x 292	1030/ 250	12,8	10,5
1FRSI-610x762x292-1SIHT	H13	610x 762x 292	2500/ 250	22,7	21,5

Other dimensions & gasket on request
Type -1SIHT = gasket upstream (standard)

Absolute 1FRK-V

Advantages

- High temperature HEPA Filter
- Filter class H13 acc. to EN 1822 (at 20°C)
- High air velocity (1,5m/s)
- Maximum continuous operating temperature 350°C
- Individually scan tested at 20°C
- High mechanical stability
- Reinforced stainless steel frame

Application: Protection for clean processes at high temperature
Frame: Reinforced stainless steel
Gasket: Glass Fiber
Media: Glass fiber
Separator: Aluminium
Sealant: Ceramic
MPPS efficiency: H13(≥99,95%)
Max. final pressure drop: 500 Pa
Max Temperature (°C): 350°C
Relative Humidity max: 100%
Comment: Please note installation and assembly instructions! Due to the different thermal expansion coefficients of the individual filter components the ceramic potting may form cracks during the tempering process. At operating temperature (350 °C) these filters have an overall efficiency of 99,97% at 0,3 µm, leackages are possible.

Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
1FRKV- 220-1W	H13	305x 610x 150	540/ 250	5,1	10,3
1FRKV- 300-1W	H13	457x 457x 150	620/ 250	5,9	11,2
1FRKV- 600-1W	H13	610x 610x 150	1180/ 250	11,4	13,5
1FRKV- 980-1W	H13	915x 610x 150	1780/ 250	16,8	18,3
1FRKV- 450-1W	H13	305x 610x 292	900/ 250	10,4	18
1FRKV- 725-1W	H13	457x 610x 292	1420/ 250	16,3	21,4
1FRKV-1000-1W	H13	610x 610x 292	1960/ 250	22,5	23,4
1FRKV-1250-1W	H13	762x 610x 292	2480/ 250	28,4	25,9

ModelI -1W = Gasket upstream (standard)
ModelI -01W = Gasket downstream
ModelI -2W = Gasket both sides
ModelI -0 = no gasket
Other editions on request

Termikfil 2000

Advantages

- High temperature HEPA filter
- For low installation depths (84mm) and low air velocity (0,9m/s)
- Efficiency 99,99% at 0,3 µm (meets FDA requirements)
- Maximum continuous operating temperature 350°C
- Exclusive precuring process at 300°C carried out in the plant
- Efficiency tested after precuring

Application: Protection of ultra-clean processes at high temperature, sterilisation tunnels in the pharmaceutical industry
Frame: Composite ceramic
Gasket: Glass Fiber, Braided glass fiber
Media: Glass fiber
Separator: Glass fiber
Sealant: Ceramic
Grille, Upstream: Stainless steel
Grille, Downstream: Stainless steel
Max. final pressure drop: 350 Pa
Temperature max. (peak): 350°C
Installation Options: A stainless steel adaptor frame can be supplied to reach the thickness of 150mm or 292mm
Comment: Efficiency 0.3µm : > 99.99% @ front velocity 0.9m/s
Local penetration max.: 10-4 maximum,(0.01% acc. FDA) after the 1st heating cycle on site following Camfil procedure
Note : since full running condition in customer equipment are not able to be fully described, Camfil is not able to guarantee further to the 1st heating cycle on site
NB: To reduce fume emission when starting up, TERMIKFIL undergoes a specific precuring cycle in the factory at 300°C using an exclusive CAMFIL process

Art. No.	Type	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
3415.06.00	3P3	305x 305x 84	300/ 250	2,9	1.8
3415.01.00	3P6	305x 610x 84	600/ 250	5,9	3.3
3415.07.00	4P4	457x 457x 84	675/ 250	5	2.8
3415.05.00	4P6	457x 610x 84	900/ 250	8,9	3.7
3415.02.00	6P6	610x 610x 84	1200/ 250	12,1	4.6
3415.03.00	7P6	762x 610x 84	1500/ 250	15,3	6
3415.04.00	9P6	915x 610x 84	1800/ 250	18,5	8

Absolute D-Pyro

Advantages

- High temperature HEPA filter
- Filterclass H14 during all conditions (H13 also available)
- Maximum continuous operating temperature 350°C
- No tempering and system cleaning required
- Leak-free and proven efficiency after 200 cycles
- Very robust construction
- ProSafe + REACH compliance
- Patented construction

Application: HEPA filter protection for clean processes at high temperature, especially for Life Science (depyrogenation tunnels, ovens)
Frame: Stainless steel
Media: Glass fiber
Separator: Stainless steel
Sealant: Inorganic polymer
MPPS efficiency: ≥99,97% at 0,3µm, ≥99,95% at MPPS, H13, and ≥99,997% at 0,3µm, ≥99,995% at MPPS, H14, even after heating cycle, leak free ≥ 200 cycles
Max. final pressure drop: 700 Pa
Comment: Temperature: 350 °C with peaks up to 400 °C.
ISO 5 under all production steps. Please note installation and assembly instructions! Other editions on request (with gasket, or sizes)

Type	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
DHT14-305x610x150-0-SP	H14	305x 610x 150	540/ 310	4,8	8,0
DHT14-457x457x150-0-SP	H14	457x 457x 150	620/ 300	5,3	9,0
DHT14-762x457x150-0-SP	H14	762x 457x 150	1080/ 290	11.8	15
DHT14-457x610x150-0-SP	H14	457x 610x 150	850/ 300	7,3	12,0
DHT14-610x610x150-0-SP	H14	610x 610x 150	1180/ 290	10,4	16,0
DHT14-762x610x150-0-SP	H14	762x 610x 150	1500/ 290	13,1	34,0
DHT14-305x610x292-0-SP	H14	305x 610x 292	900/ 310	9,7	13,0
DHT14-457x610x292-0-SP	H14	457x 610x 292	1420/ 290	14,6	19,5
DHT14-610x610x292-0-SP	H14	610x 610x 292	1960/ 290	20,7	26,0
DHT14-762x610x292-0-SP	H14	762x 610x 292	2480/ 290	25,9	44,0
DHT13-305x610x150-0-SP	H13	305x 610x 150	460/ 250	4,8	8,0
DHT13-457x457x150-0-SP	H13	457x 457x 150	510/ 250	5,3	9,0
DHT13-457x610x150-0-SP	H13	457x 610x 150	750/ 250	7,3	12,0
DHT13-610x610x150-0-SP	H13	610x 610x 150	990/ 250	10,4	16,0
DHT13-762x610x150-0-SP	H13	762x 610x 150	1260/ 250	13,1	34,0
DHT13-305x610x292-0-SP	H13	305x 610x 292	780/ 250	9,7	13,0
DHT13-457x610x292-0-SP	H13	457x 610x 292	1310/ 250	14,6	19,5
DHT13-610x610x292-0-SP	H13	610x 610x 292	1850/ 250	20,7	26,0
DHT13-762x610x292-0-SP	H13	762x 610x 292	2250/ 250	25,9	44,0

Pressure drop: ±10%

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Applicable Standards for Corrosion Control

Common Reference Standards

There are two commonly referenced standards that categorise environmental conditions in relation to the deployment and reliability of electronic equipment:
1. IEC 60721-3-3
2. ANSI/ISA-71.04-2013.

IEC 60721-3-3 categorises environmental conditions based on several parameters such as climatic conditions, biological and chemical contaminants and mechanical effects.

ANSI/ISA-71.04-2013

ANSI/ISA-71.04-2013 is the most popular and focuses on airborne contaminants and observed rates of corrosion for copper and silver metals.

ANSI/ISA-71.04-2013 defines 4 classes of air quality that relate to different rates of reactivity or corrosion of copper and silver. These are; G1 Mild, G2 Moderate, G3 Harsh and GX Severe.

For reference, the standard tabulates concentrations of different gases that approximately correspond to the 4 categories of copper reactivity. It is worth noting that extremely low concentrations of some agents are required to achieve G1 Mild conditions.

Most original equipment manufacturers require provision of G1 Mild conditions as part of their warranty conditions since the standard states for class G1 that “Corrosion is not a factor in determining equipment reliability”. The external ambient air at some heavy process industries will routinely be classified as GX Severe.

ISA Classification of reactive environments (ANSI/ISA 71.04-2013)

	Environment sufficiently well controlled such that corrosion is not a factor in determining equipment reliability	Environment in which the effects of corrosion are measurable and may be a factor in determining equipment reliability	Environment in which there is a high possibility that corrosive attack will occur. These harsh levels should prompt further evaluation resulting in environmental controls	Environment in which only specialy designed and packaged equipment would be expected to survive
Security level	G1 (MILD)	G2 (MODERATE)	G3 (HARSH)	GX (SEVERE)
Copper reactivity level *	<300	<1000	<2000	≥2000
Silver reactivity level *	<200	<1000	<2000	≥2000

* In angstroms, normalized to a 30-day exposure

COPPER REACTIVITY LEVELS (A/month)		G1 (MILD)	G2 (MODERATE)	G3 (HARSH)	GX (SEVERE)
GROUP	**GAS**	**GAS CONCENTRATION (parts per billion)**			
A	Hydrogen sulfide (H_2S)	< 3	< 10	< 50	50
	Sulfur dioxide (SO_2)	< 10	< 100	< 300	300
	Sulfur trioxide (SO_3)				
	Chlorine (Cl_2)	< 1	< 2	< 10	10
	Nitrogen oxides (NOx)	< 50	< 125	< 1,250	1,250
B*	Hydrogen fluoride (HF)	< 1	< 2	< 10	10
	Ammonia (NH_3)	< 500	< 10,000	< 25,000	25,000
	Ozone (O_3)	< 2	< 25	< 100	100

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Note of caution :

The standard indicates concentrations of individual gases that loosely correspond to the 4 classes of corrosivity. If multiple gases are present in the air, a synergistic effect on the observed rate of corrosion that is difficult to quantify may occur. As a consequence, on-site monitoring for a single or multiple gases may not in itself predict or explain corrosion of silver and copper.

Application matrix

DUTY	VERY LIGHT	LIGHT	MODERATE	MODERATE	MODERATE	HEAVY	HEAVY	VERY HEAVY
SEGMENT	IAQ	COMFORT	SENSITIVE ENVIRONMENT	CLEAN ROOMS	LIGHT PROCESS	CORROSION CONTROL	INDUSTRIAL EXHAUST	EMERGENCY PROTECTION
EXAMPLE	CITY CENTRE OFFICE	AIRPORT	MUSEUM AND IVF CLINIC	SEMI-CONDUCTOR	SMALL FACTORY	PETROCHEM. PULP & PAPER	WASTE HANDLING	REFUGE
CUSTOMER PROBLEM	NON-SPECIFIC	SPECIFIC	SPECIFIC	SPECIFIC	SPECIFIC	SPECIFIC	VERY SPECIFIC	VERY SPECIFIC
MAKE-UP AIR	CITY FAMILY / CAMCARB	CAMCARB	CAMCARB	CAMCARB / GIGAPLEAT	CAMCARB	PROCARB		PROCARB
RECIRC. (RETURN) AIR	CITY FAMILY	CITY FAMILY	CITY FAMILY / GIGAPLEAT	GIGAPLEAT	CAMCARB	CAMCARB		PROCARB
EXHAUST AIR					CAMCARB		PROCARB / ACTICARB / HEGA	

Molecular filter test equipment according to ISO 10121

Why molecular filtration?

Air pollution caused by traffic, manufacturing, power plants, agriculture and even forest fires is a growing problem in our industrialized world.

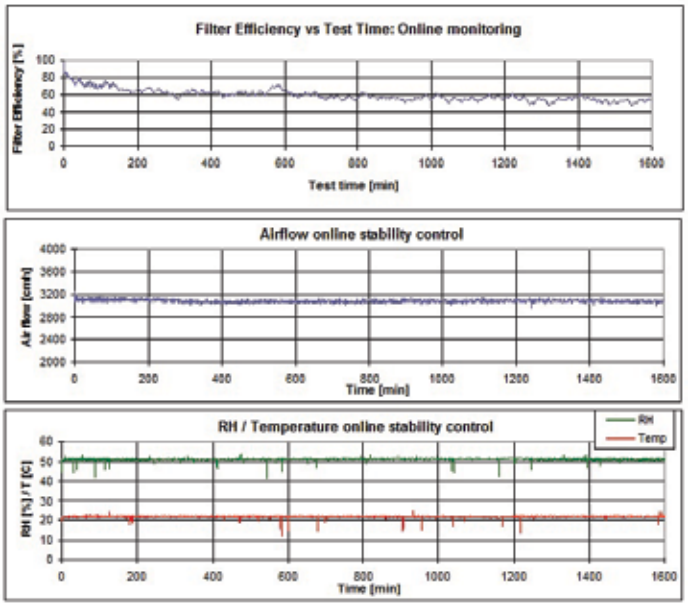
Molecular gaseous compounds are invisible and all around us. Some of these compounds are so toxic, and yet so hard for us to detect, that they can do us harm without even realizing we have been exposed.

Unfortunately we are routinely being subjected to such hazardous compounds in our offices, our homes, our cities and even during our leisure time.

The impact of such exposure can be significant. High ozone or volatile organic compound (VOC) levels represent a serious health threat for all of us. At the same time air pollution can damage everything from valuable artifacts in museums to exposed surfaces in our homes and offices.

In manufacturing environments Airborne Molecular Contamination (AMC) can cause a variety of problems. In semiconductor manufacturing, for example, AMC can reduce product yield, corrode valuable optical components and damage a wide range of process equipment.

In other industries, as products and processes become more complex and more sensitive to all types of contamination, the control of AMC will become an ever more critical part of ensuring product quality and improving process yield rates.



Test according to ISO 10121

Additional services

Camfil offers a wide range of AMC focused services that allow our customers to remain focused on their core business. These service include filter life time analysis, real time online measurement of contaminants and passive sampling to precisely determine the type and concentration of the problem compounds.

Once local analysis has been completed our AMC experts can propose comprehensive AMC solutions based on the minimum possible Life Cycle Cost available to meet customer needs.

Camfil is the only filter company equipped with a full size filter test facility designed to performance test not just filter media samples but also full size filters under precisely simulated conditions. This full size filter testing is the basis for all our published technical data and can be used to test filter performance against wide and varied range of AMC challenges under precise temperature, humidity and air flow conditions.

This type of performance data can be invaluable when it comes to determining the optimal solution for any specific AMC challenge.

Molecular filtration technical services

Beyond Filtration

Camfil provides a comprehensive range of measurement services to complement their range of air filtration products. The services are used to assist in product selection, product validation and optimization of product performance.
Where possible we base our testing on international standards to ensure comparability and repeatability of results.
All our testing facilities are ISO 9001 : 2000 certified and measuring equipment is calibrated traceable to national standard.

CamPure Corrosion Coupons

CamPure or reactivity coupons are an economical and simple way to assess the corrosive potential of an environment.
The coupons comprise of a pair of copper and silver foil strips which are exposed to the environment. After a given period, the coupons are returned to the laboratory where the surface corrosion is determined.
The types and relative amounts of corrosion on each metal are indicative of the corrosive agents in the air.
Coupons may be used to assess an environment prior to selection and installation of a molecular filtration system and to validate the ongoing performance after installation.
Atmospheres may be classified according to the Instrument Society of America standard ISA-S71.04. Categories include Mild (G1). Moderate (G2), Harsh (G3) and Severe (GX).

Residual Life Analysis / Gigamonitor

It is important to be able to predict the impending failure of a molecular filter due to saturation of the media. This may be achieved through a programme of residual life analyses.
In this laboratory technique, a sample of media returned from the field is analysed for the residual content of the impregnation or chemical agent system.
A series of measurements made at 3 or 6 month interval allow the eventual deterioration in the condition of the media to be anticipated and plans put in place for a replacement.

Gas challenges

Camfil have a unique test facility that allows full scale molecular filters to be tested under conditions which precisely replicate those experienced in actual applications.
The molecular filtration test rig allows filters to be exposed to airflows with a wide variety of temperatures and relative humidities.

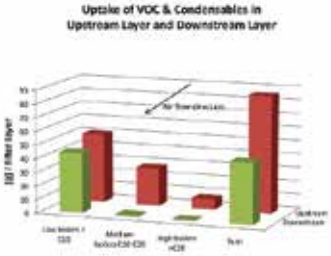
Site services

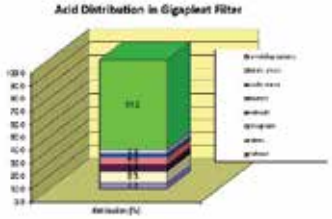
Camfil have the possibility to offer on-site support services. These may include:
- Supply and fit of filters.
- Removal and disposal of waste material
- Supply and fill of new media and in=site performance validation.

On-line corrosion monitoring (AirImage-COR)

The AirImage-COR is an out-of-the-box solution to accurately monitor corrosion, temperature, relative humidity, and pressure (absolute or differential). It is a vital tool for pro-tecting valuable electronic equipment and other objects from corrosion caused by airborne acidic gases.

AirImage-COR measures and registers the change over time in the electrical resistance (ER) of a thin metal track applied on an insulating substrate. If the metal corrodes, the cross sectional area of the track decreases and the ER increases. The changes in ER can be directly translated into corrosion depth and corrosion rate. AirImage-COR measures loss of metal thickness and therefore the technique provides a direct correlation to corrosivity.





Molecular filtration technical services

Gigacheck™

The Camfil Gigacheck™ is a passive analytical system to selectively measure airborne molecular contaminants (AMC) in cleanrooms and accompanying air handling systems used for microelectronics and integrated circuit manufacture.

Other possible applications include museums, airports, hospitals and oil and gas industries.
Common contaminants of analysis include acids, acid precursors, bases and ozone.

The kit and the samplers are supplied in a case and sealed plastic bags.
The Gigacheck™ can be located inside the cleanroom, in a ventilation duct, inside make-up air systems, or in a mini environment. A proven tool, it is small, light weight, cost effective, and does not require any electrical connections or field calibration.
The only requirements are ambient temperature and normal airflow. Sampling time is 1 day – 1 month depending on the application. The Gigacheck™ provides average concentrations of AMC over the sampling period.

The Gigacheck™ is sealed and returned to our laboratory at the end of the exposure period.
The resulting data and information about the ventilation system and the process being protected allows us to design an optimized molecular filtration system based on your specific site condition.

Advanced Online Gas Monitoring

If you need to understand the short term variation of airborne molecular contaminant (AMC) concentrations in your cleanroom for an extended period of time, Camfil online monitoring equipment will be the perfect solution. Equipped with 8 sampling ports, our system is able to measure the concentrations of Ammonia (NH_3), Nitrogen Oxides (NOx), Sulfur Dioxide (SO_2), Hydrogen Sulfide (H_2S) or total reduced Sulfur compounds (TRS), down to a detection limit of 0.5 ppb(v). Data are recorded and can be plotted into graphs showing concentration changes over time in different location of your cleanroom or process equipments.

Our technology follows the recommendations of the International Technology Roadmap for Semicondutors (ITRS) for advanced air monitoring applications, using chemiluminescence technology for NOx and NH_3, UV fluorescence detectors for SO_2 and H_2S, NH_3 and Sulfur compounds are the most critical contaminants in semiconductor and microelectronic applications, resulting in serious yield losses and product quality issues, even when present at trace levels. Please contact our local Camfil team of experts to assist you with your advanced online AMC measurements.

CamCarb PM

Advantages

- Suitable for high temperature applications above 60°C
- Custom lengths, widths, and depths
- Stainless steel, galvanized steel, powder coated metal construction
- Vibrated fill technique to prevent media settlement
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: ozone, nitrogen dioxide, sulfur dioxide, beta-myrcene, hydrocarbons, VOCs

Application: Adsorption of odours and gases in air conditioning applications
Frame: Stainless steel, Galvanised steel
Media: Activated Carbon, Impregnated Activated Carbon, Activated Alumina
Max Temperature (°C): -21 to 80°C
Relative Humidity max: 90%
Installation Options: Front and side access housings and frames are available

Available in standard and custom sizes, CamCarb PM panels are high-quality molecular filtration panels for use in a variety of housings. CamCarb PM panels may be filled with many different molecular filtration media to protect people, processes, the environment and cultural artefacts.
CamCarb PM panels are a cost-effective method to deploy moderate amounts of carbon media.
The standard construction is galvanized steel with stainless steel as an option. Both face meshes are fitted with internal scrims to eliminate shedding of fine particles and minimize dusting.

Type	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Optimum temperature (°C)	Optimum RH (%)	Weight (kg)
CamCarb PM VOC_03_NO2_SO2	600x 600x 24	680/ 125	Max. 40	0-70	9
CamCarb PM VOC_03_NO2_SO2	300x 600x 24	340/ 125	Max. 40	0-70	4.5

Filters are available in a comprehensive range of sizes and depths. Please contact Camfil for more information.

CamCarb PM V

Advantages

- Reusable V cell housing
- Exchangeable loose-filled panels
- Cost optimized life cycle
- High performance
- Suitable for a wide range of air volumes

Application: Adsorption of odours and gases in air conditioning applications.
Media: Activated Carbon, Impregnated Activated Carbon, Activated Alumina
Max Temperature (°C): Max 80°C
Relative Humidity max: 90%
Comment: Frame: Housing = Stainless steel, Panels = Galvanized steel
Gasket: 01 = downstream, 10 = upstream

Type#1	Note	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Optimum temperature (°C)	Optimum RH (%)	Weight (kg)
CamCarb PM V-	DH: Box type	610x 610x 292	2600/ 300	Max. 40	0-70	80
CamCarb PM V	DH: Box type	305x 610x 292	1100/ 300	Max. 40	0-70	42
CamCarb PM V	PH: Single header	592x 592x 292	2600/ 180	Max. 40	0-70	40
CamCarb PM V	PH: Single header	287x 592x 292	1100/ 180	Max. 40	0-70	22

#1-CamCarb PM V housing fitted with CamCarb PM VOC_O3_NO2_SO2.
Filters are available with different media options.High Performance media will be selected in accordance to the type of application.

CamCarb PC

Advantages

- Reduced media bed density when a lower pressure drop is required
- Lightweight construction components
- Suitable for non-critical applications in recirc or exhaust
- Typical target gases: ozone, nitrogen dioxide, sulfur dioxide, and VOCs

Application: Adsorption of odours and gases in air conditioning applications.
Type: Loose Fill Panel
Frame: Galvanised steel
Media: Activated Carbon, Impregnated Activated Carbon, Impregnated Activated Alumina
Rec. final pressure drop: Pressure drop in a loose-fill molecular filter will remain unchanged. Periodic media sampling should be conducted to determine the filter replacement frequency.
Max Temperature (°C): -21 to 80
Relative Humidity max: 90%
Installation Options: Front and side access housings and frames are available

Type	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Optimum temperature (°C)	Optimum RH (%)	Weight (kg)
CamCarb PC VOC_03_NO2_SO2	594x 594x 47	850/ 70	Max. 40	0-70	7.5
CamCarb PC VOC_03_NO2_SO2	594x 289x 47	425/ 70	Max. 40	0-70	4

Above are sample sizes, filters are available in a comprehensive range of sizes, please specify
Also available with stainless steel case

CamCarb XG

Advantages

- Inherently leak-free design when installed in dedicated hardware
- Corrosion resistant and low-dusting construction
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: hydrogen sulfide, VOCs, ozone, formaldehyde, nitrogen dioxide, and other acids and bases
- The conical shape provides the highest removal efficiency and lowest pressure drop
- 30% lighter than metal cylinders
- Ergonomic filter design for improved handling

Application: The most reliable molecular filter for high efficiency and long-term control of molecular contaminants in sensitive buildings and process industries.
They may also be used in odour removal applications in pulp and paper mills and wastewater treatment plants, or lighter applications such as airports, cultural heritage buildings, and commercial offices.
Type: Loose Fill Cylinder
Frame: ABS
Gasket: Outlet seal, molded TPE
Media: Activated Carbon, Impregnated Activated Carbon, Impregnated Activated Alumina
Max Temperature (°C): -21°C to 80°C
Installation Options: Front access mounting frames and side access housings are available. See related products below.
Comment: Universal mounting knobs to accommodate 1.5 or 2 mm mounting frames. Sixteen (16) XG's are applied per 610 x 610mm (24" x 24") opening. Can be filled with any loose-fill molecular media.

Type#1	Length (mm)	Diameter (mm)	Airflow/pressure drop (m³/h/Pa)#2	Optimum temperature (°C)	Optimum RH (%)	Nominal weight (kg)
CamCarb XG 2600 SO2_H2S^3	452	146	2500/ 85	10-60	40-90	3.5
CamCarb XG 2600 Acids_H2S^3	452	146	2500/ 85	10-60	40-90	3.5
CamCarb XG 2600 VOC	452	146	2500/ 95	Max. 40	0-70	2.3
CamCarb XG 2600 H2S_Mercaptans	452	146	2500/ 95	10-60	40-90	2.4
CamCarb XG 2600 Acids	452	146	2500/ 95	10-60	40-90	2.7
CamCarb XG 2600 VOC_03_Acid_H2S	452	146	2500/ 95	10-40	40-70	2.9
CamCarb XG 2600 VOC_03_NO2_SO2	452	146	2500/ 85	Max. 40	0-70	2.3
CamCarb XG 2600 Bases	452	146	2500/ 95	10-60	40-90	2.7
CamCarb XG 3500 SO2_H2S^3	595	146	3400/ 120	10-60	40-90	4.4
CamCarb XG 3500 Acids_H2S^3	595	146	3400/ 120	10-60	40-90	4.4
CamCarb XG 3500 VOC	595	146	3400/ 125	Max. 40	0-70	2.9
CamCarb XG 3500 H2S_Mercaptans	595	146	3400/ 125	10-60	40-90	3.0
CamCarb XG 3500 Acids	595	146	3400/ 125	10-60	40-90	3.3
CamCarb XG 3500 VOC_03_Acid_H2S	595	146	3400/ 125	10-40	40-70	3.7
CamCarb XG 3500 VOC_03_NO2_SO2	595	146	3400/ 125	Max. 40	0-70	2.9
CamCarb XG 3500 Bases	595	146	3400/ 125	10-60	40-90	3.4

Filter performance will be affected if used in conditions where T and RH are above or below the optimum conditions.
#1 - Other models with different media options are available. High performance media will be selected in accordance to the type of application.
#2 - Pressure drop at maximum rated airflow.
^3 - Filled with UL approved media

CamCarb CG

Advantages

- Corrosion resistant and low dusting construction
- 25% lighter than CamCarb CM
- Inherently leak-free design when installed in dedicated hardware
- Combines highest removal efficiency and lowest pressure drop
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: hydrogen sulfide, VOC's, ozone, formaldehyde, nitrogen dioxide, and other acids and bases

Application: The most reliable molecular filter for high efficiency and long-term control of molecular contaminants in sensitive buildings and process industries.
They may also be used in odour removal applications in pulp and paper mills and wastewater treatment plants, or lighter applications such as airports, cultural heritage building, and commercial offices.
Type: Loose Fill Cylinder
Frame: Plastic moulded
Gasket: Double seal, molded TPE
Media: Activated Carbon, Impregnated Activated Carbon, Impregnated Activated Alumina
Max Temperature (°C): -21°C to 60°C
Installation Options: Dedicated base plate in 2 standard sizes (1.5 mm and 2.0 mm thickness).
16 cylinders per 610x610 mm base plate. Half size, three quarter and full size 610x610 base plates are available.
Comment: Filter performance will be affected if used in conditions where T and RH are above or below the optimum conditions.
CamCarb CG can be used in Supply Air, Recirculation Air, and Exhaust Air ventilation systems.

Type#1	Length (mm)	Diameter (mm)	Airflow/pressure drop ($m^3/h/Pa$)#2	Optimum temperature (°C)	Optimum RH (%)	Nominal weight (kg)
CamCarb CG 1300 SO2_H2S^3	240	148	1250/ 80	10-60	40-90	2.4
CamCarb CG 1300 Acids_H2S^3	240	148	1250/ 80	10-60	40-90	2.4
CamCarb CG 1300 VOC	240	148	1250/ 80	Max. 40	0-70	1.6
CamCarb CG 1300 H2S_Mercaptans	240	148	1250/ 80	10-60	40-90	1.6
CamCarb CG 1300 Acids	240	148	1250/ 80	10-60	40-90	1.6
CamCarb CG 1300 VOC_O3_Acid_H2S	240	148	1250/ 100	10-40	40-70	2.0
CamCarb CG 1300 VOC_O3_NO2_SO2	240	148	1250/ 60	Max. 40	0-70	1.5
CamCarb CG 1300 Bases	240	148	1250/ 80	10-60	40-90	1.6

#1 - Other models with different media options are available. High performance media will be selected in accordance to the type of application.
#2 - Pressure drop at rated air flow for 16 cylinders.
^3 - Filled with UL approved media

CamCarb CM

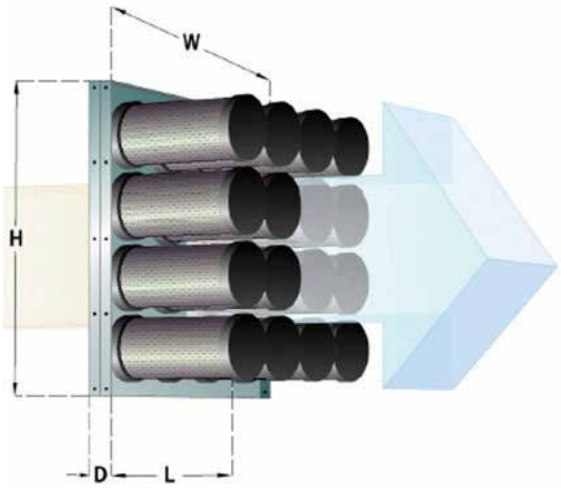
Advantages

- Ideal for high temperature applications above 60°C
- Factory refillable
- Inherently leak-free design when installed in dedicated hardware
- Combines highest removal efficiency and low pressure drop
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: VOCs, ozone, nitrogen dioxide, sulfur dioxide

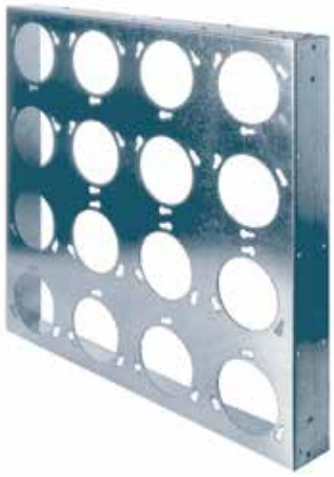
Application: The most reliable molecular filter for high efficiency and long-term control of molecular contaminants in sensitive buildings and process industries.
They may also be used in odour removal applications in pulp and paper mills and wastewater treatment plants, or lighter applications such as airports, cultural heritage building, and commercial offices.
Type: Loose Fill Cylinder
Frame: Stainless steel, Galvanised steel
Gasket: Rubber
Media: Activated Carbon, Impregnated Activated Carbon, Impregnated Activated Alumina
Max Temperature (°C): -21°C to 80 °C
Installation Options: Dedicated base plate in 2 standard sizes (1.5 mm and 2.0 mm thickness)
Comment: Filter performance will be affected if used in conditions where T and RH are above or below the optimum conditions. CamCarb CM can be used in Supply Air, Recirculation Air and Exhaust Air ventilation systems.

Type#1	Length (mm)	Diameter (mm)	Airflow/pressure drop (m³/h/Pa)#2	Optimum temperature (°C)	Optimum RH (%)	Nominal weight (kg)
CamCarb CM 2600 VOC	450	145	2500/ 110	Max. 40	0-70	3.9
CamCarb CM 2600 H2S_Mercaptans	450	145	2500/ 110	10-60	40-90	3.9
CamCarb CM 2600 Acids	450	145	2500/ 110	10-60	40-90	3.9
CamCarb CM 2600 Bases	450	145	2500/ 110	10-60	40-90	3.9
CamCarb CM 3500 VOC	600	145	3400/ 190	Max. 40	0-70	5.2
CamCarb CM 3500 H2S_Mercaptans	600	145	3400/ 190	10-60	40-60	5.2
CamCarb CM 3500 Acids	600	145	3400/ 190	10-60	40-90	5.2
CamCarb CM 3500 Bases	600	145	3400/ 190	10-60	40-90	5.2

#1 - Other models with different media options are available. High performance media will be selected in accordance to the type ofapplication.
#2 - Pressure drop at rated air flow for 16 cylinders.



CamCarb Mounting Frames



Advantages

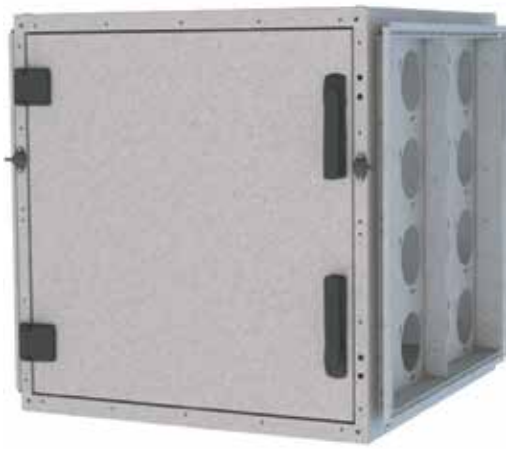
- Modular design adaptable for all types of installations
- Rapid fitting system via bayonet fitting
- Quick and easy service
- Three standard sizes
- Assembly by bolting, rivets,welding

Application: Dedicated mounting frames to ensure leak-free installation of CamCarb molecular filters in AHUs, ducts and plenums
Frame: Stainless steel, Galvanised steel
Comment: Frame Thickness 1.5mm and 2.0mm
Applicable filters: CamCarb CM and CamCarb XG. (Note : always specify filter type when ordering as base plate thickness may vary to accommodate different weights of filters).

Type	Dimensions WxHxD (mm)	Number of Cylinders	Weight (kg)
G8	305x 610x 70	8	3
G12	457x 610x 70	12	5.7
G16	610x 610x 70	16	6

Available as 1.5mm or 2mm

CamCube CC-L



MagiCAD

Advantages

- For CamCarb cylindrical molecular filters with max depth 452 mm
- Build-in thermal insulation
- Corrosivity class C4 for Aluzinc housing material
- Leakage class C acc. EN 15727
- Easy maintenance
- Optional rail for particle prefilter panels

Application: CamCube CC is a flexible and compact range of filter housings for cylindrical molecular filters having a maximum length of 452 mm. Two stage filtration is available as an option with a mounting rail for 48 mm particle pre or after filters. Housings are used in comfort and industrial applications.
Comment: Molecular filter types: CamCarb CG 1300/ XG 2600 or CamCarb CM 2600 filled with different types of adsorbents. depending on application. See the relevant catalogue page for further information.
Particle filter types: Optional mounting rail for 48 mm particle pre or after filters. All filters shall have external dimensions 592x592 mm.
Other standard features: Adjustable feet, factory mounted pressure ports, guide for housing connection, 45 mm thermal insulation. The door is hinged on the left or right and the orientation may also be changed on site.
Other options: Lockable handles. Flange for housing connection. Stainless steel SS EN 1.4301 housing material.

CamCube CC is a flexible and compact range of filter housings for cylindrical filters in length 450 mm.
Two stage filtration is available as an option with a prefilter or afterfilter mounting rail for panel filters.
The housing is a sandwich design with 45 mm heat and condensation insulation between, covered with aluzink sheet metal inside and outside (corrosivity class C4).
The service hatch is hinged mounted.The endless gasket on the inside of the service hatch makes it highly airtight.
The filter housing has a leakage class of C according to EN 15727.
As standard the casing has M8 threads for mounting the filter housing. The filter housing is supplied with a guide connection, and a flange connection is available as an option.

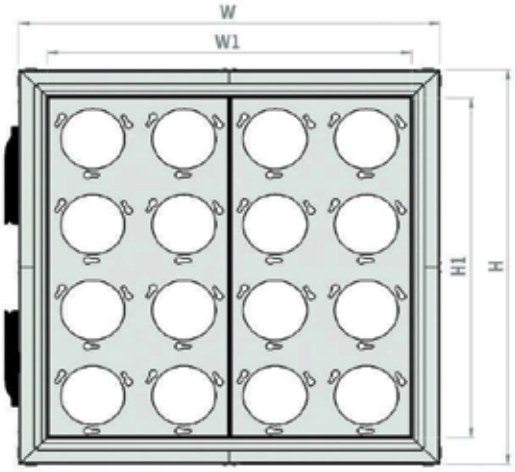
Accessories:
Prefilter or afterfilter mounting rail 50 mm
Lockable handles
Flange adaptor

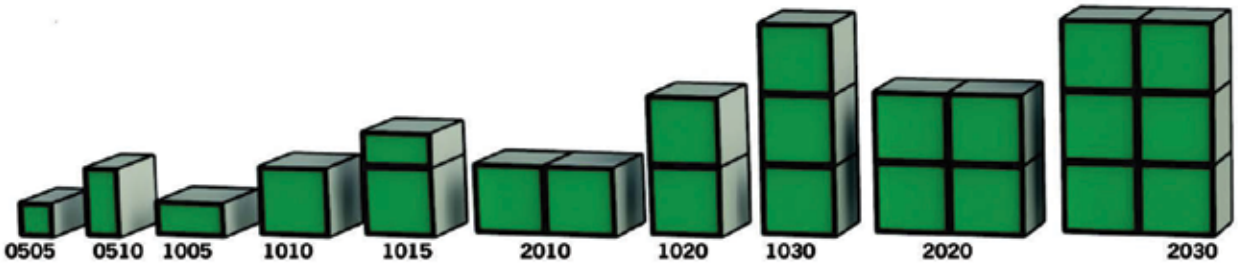
Example specification text:
Filter housing: CamCube CC-1010.
Design: Sandwich construction with 45 mm heat and condensation insulation, covered with double aluzinc sheet metal (corrosivity class C4)
Leakage class C
Filter: 16 pcs Camcarb 2600 GZ D=145 mm L=450 mm CEX003

Classification:
Leakage class C, according to the EN 15727:2010 standard
Leakage class L1 according to the EN 1886:2007 standard
Mechanical performance: D1 according to the EN 1886:2007 standard

Type	Dimensions WxHxD (mm)	Inner flanges W1xH1 (mm)	Number of Cylinders	Weight (kg)	Airflow at 0,1s (m³/h)	Airflow at 0,2s (m³/h)
CamCube CC-L 0505	392x 392x 700	300x 300	4	24	650	310
CamCube CC-L 0510	392x 692x 700	300x 600	8	34	1300	620
CamCube CC-L 1005	692x 392x 700	600x 300	8	34	1300	625
CamCube CC-L 1010	692x 692x 700	600x 600	16	43	2600	1250
CamCubeCC-L 1015	692x 992x 700	600x 900	24	55	3900	1875
CamCube CC-L 1020	692x 1292x 700	600x 1200	32	64	5200	2500
CamCube CC-L 1025	692x 1592x 700	600x 1500	40	76	6500	3150
CamCube CC-L 1030	692x 1892x 700	600x 1800	48	85	7800	3750
CamCube CC-L 1510	992x 692x 700	900x 600	24	53	3900	1875
CamCube CC-L 1515	992x 992x 700	900x 900	36	66	5850	2810
CamCube CC-L 1520	992x 1292x 700	900x 1200	48	76	7800	3750
CamCube CC-L 1525	992x 1592x 700	900x 1500	60	89	9750	4685
CamCube CC-L 1530	992x 1892x 700	900x 1800	72	99	11700	5625
CamCube CC-L 2010	1292x 692x 700	1200x 600	32	62	5200	2500

Type	Dimensions WxHxD (mm)	Inner flanges W1xH1 (mm)	Number of Cylinders	Weight (kg)	Airflow at 0,1s (m³/h)	Airflow at 0,2s (m³/h)
CamCube CC-L 2015	1292x 992x 700	1200x 900	48	77	7800	3750
CamCube CC-L 2020	1292x 1292x 700	1200x 1200	64	86	10400	5000
CamCube CC-L 2025	1292x 1592x 700	1200x 1500	80	100	13000	6250
CamCubeCC-L 2030	1292x 1892x 700	1200x 1800	96	109	15600	7500
CamCube CC-L 2510	1592x 692x 700	1500x 600	40	74	6500	3125
CamCube CC-L 2515	1592x 992x 700	1500x 900	60	89	9750	4685
CamCube CC-L 2520	1592x 1292x 700	1500x 1200	80	98	13000	6250
CamCube CC-L 2525	1592x 1592x 700	1500x 1500	100	113	16250	7810
CamCube CC-L 2530	1592x 1892x 700	1500x 1800	120	123	19500	9375
CamCube CC-L 3010	1892x 692x 700	1800x 600	48	83	7800	3750
CamCube CC-L 3015	1892x 992x 700	1800x 900	72	99	11700	5625
CamCube CC-L 3020	1892x 1292x 700	1800x 1200	96	108	15600	7500
CamCube CC-L 3025	1892x 1592x 700	1800x 1500	120	124	19500	9375
CamCube CC-L 3030	1892x 1892x 700	1800x 1800	144	134	23400	11250





CamCube HF-CC

Advantages

- For CamCarb XG molecular filters with max depth 600 mm
- Build-in thermal insulation
- Corrosivity class C4 for Aluzinc housing material
- Leakage class C acc. EN 15727
- Easy maintenance
- Possible installation of 2 stages of particle filters

Application: CamCube HF-CC is a flexible range of filter housings for cylindrical molecular filters having a maximum length of 600 mm, combined with 1 stage of particle filters (bag or compact header) and with an optional rail for particle pre-filter panels (48 or 96 mm depth). Housings are used in comfort and industrial applications.
Max Temperature (°C): 60°C with plastic cylinders, 70°C with metal cylinders.
Installation Options: Left hinged service door from factory, can be changed on site.
Comment: Molecular filter types: CamCarb XG or CamCarb CM filled with different types of adsorbents depending on application. See the relevant product catalogue page for further information.
Particle filter types: All filters shall have external dimensions 592x592 mm.
Optional first stage using 48 mm particle panel filters. 96 mm depth is possible in certain configurations.
Second stage using bag filters such as Hi-Flo with maximum pocket depth of 370 mm when combined with CamCarb XG/CM 3500 or a depth of 520 mm when combined with other cylindrical products.
Alternative second stage using compact filters with 25 mm header frames such as Opakfil.
Other standard features: Adjustable feet, factory mounted pressure ports, guide for housing connection, 45 mm thermal insulation. The door is hinged on the left or right and the orientation may also be changed on site.
Other options: Lockable handles. Flange for housing connection. Stainless steel SS EN 1.4301 housing material.
Filter housing material: Aluzinc (except handles, hinges and accessories).

Product description: CamCube HF-CC is a flexible range of filter housing for bag filters, other filter types with 25mm HF and cylinder filters. Three stage filtration is available as an option with a filter slide mounted. The housing has a sandwich design with 45mm heat and condensation insulation between an outer and an inner shell of aluzinc (corrosivity class C4).
The filter housing holds leakage class C according to EN 15727.
When the service hatch is closed the newly developed clamping device ensures a secure clamping of the filter.
As standard the casing has M8 threads for mounting adjustable feet.
The filter housing is supplied with guided connection as standard with flange connection as an option.

Type	Dimensions WxHxD (mm)	Inner flanges W1xH1 (mm)	Weight (kg)
CamCube HF-CC 0510	392x 692x 1160	300x 600	60
CamCube HF-CC 0505	392x 392x 1160	300x 300	52
CamCube HF-CC 1010	692x 692x 1160	600x 600	77
CamCube HF-CC 1015	692x 992x 1160	600x 900	97
CamCube HF-CC 1020	692x 1292x 1160	600x 1200	113
CamCube HF-CC 1510	992x 692x 1160	900x 600	94
CamCube HF-CC 1520	992x 1292x 1160	900x 1200	135
CamCube HF-CC 2010	1292x 692x 1160	1200x 600	110
CamCube HF-CC 2015	1292x 992x 1160	1200x 900	136
CamCube HF-CC 2020	1292x 1292x 1160	1200x 1200	152
CamCube HF-CC 2030	1292x 1892x 1160	1200x 1800	193
CamCube HF-CC 2520	1592x 1292x 1160	1500x 1200	173
CamCube HF-CC 2530	1592x 1892x 1160	1500x 1800	218
CamCube HF-CC 3020	1892x 1292x 1160	1800x 1200	191
CamCube HF-CC 3025	1892x 1592x 1160	1800x 1500	219

Filter sizes: 287x287, 592x592, 287x592 and 592x287mm.
Depth: Pre-filter 48 mm, Bag filter 520 mm, Cylinder 450 or 452 mm.
Depth: Pre-filter 48 mm, Bag filter 370 mm, Cylinder 600 mm.

CamCarb VG

Advantages

- V-cell molecular filter filled with any Camfil carbon or CamPure media
- Integrated PET mesh allowing for smaller media and low dusting
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- UL 900
- Easily retrofitted in existing hardware or dedicated Camfil hardware
- Suitable for commercial and industrial applications

Application: Heavy duty disposable plastic Vee Cell Modules to specifically treat corrosion control of electronic and electrical equipment in heavy process industries. They may also be used in odour removal applications in pulp and paper mills and wastewater treatment plants, or lighter applications such as airports, cultural heritage building and commercial offices.
Frame: ABS , PET
Gasket: EPDM, PU-foam
Media: Activated Carbon, Impregnated Activated Carbon, Impregnated Activated Alumina
Max Temperature (°C): -21°C to 80°C
Installation Options: PSSA Housing, VG track
Comment: Filter performance will be affected if used in conditions where T and RH are above or below the optimum conditions. VG300 can be used in Supply Air Systems, while the VG440 can be used in Supply Air and Recirculation Air Systems.

Type#1	Dimensions WxHxD (mm)	Number of modules per 610x610 area	Pressure drop (Pa)#2	Optimum temperature (°C)	Optimum RH (%)	Nominal weight (kg)
CamCarb VG300 SO2_H2S^3	300x 300x 300	4	315	10 - 60	40 - 90	14.5
CamCarb VG300 Acids_H2S^3	300x 300x 300	4	315	10 - 60	40 - 90	14.5
CamCarb VG300 VOC	300x 300x 300	4	500	Max. 40	0 - 70	10.0
CamCarb VG300 H2S_Mercaptans	300x 300x 300	4	500	10 - 60	40 - 90	10.0
CamCarb VG300 Acids	300x 300x 300	4	500	10 - 60	40 - 90	10.0
CamCarb VG300 VOC_O3_Acid_H2S	300x 300x 300	4	440	10 - 40	40 - 70	11.7
CamCarb VG300 VOC_O3_NO2_SO2	300x 300x 300	4	560	Max. 40	0 - 70	8.8
CamCarb VG300 Bases	300x 300x 300	4	500	10 - 40	40 - 90	10.0
CamCarb VG440 SO2_H2S^3	300x 150x 440	8	94	10 - 60	40 - 90	6.5
CamCarb VG440 Acids_H2S^3	300x 150x 440	8	94	10 - 60	40 - 90	6.5
CamCarb VG440 VOC	300x 150x 440	8	146	Max. 40	0 - 70	4.5
CamCarb VG440 H2S_Mercaptans	300x 150x 440	8	146	10 - 60	40 - 90	4.5
CamCarb VG440 Acids	300x 150x 440	8	146	10 - 60	40 - 90	4.5
CamCarb VG440 VOC_O3_Acid_H2S	300x 150x 440	8	120	10 - 40	40 - 70	5.6
CamCarb VG440 VOC_O3_NO2_SO2	300x 150x 440	8	142	Max. 40	0 - 70	4.7
CamCarb VG440 Bases	300x 150x 440	8	146	10 - 40	40 - 90	4.5

#1 - Other models with different media options are available. High performance media will be selected in accordance to the type of application.
#2 - Pressure drop at rated velocity of 1.25 m/s (250 fpm) for VG300 and 2.5 m/s (500 fpm) for VG440.
^3 - Filled with UL approved media

PSSA

Advantages

- Positive filter clamping mechanism
- Leakage tested housing
- May be used in multiple stages
- Double skin with insulation
- No special tools required

Application: Leak free housing specifically designed for Vee Cell modules which are installed at make-up air or recirculation air systems.
Type: Housing
Comment: Type: Housing
Filter housing material : 1mm thick Aluzinc with a corrosion class of C4. the shell of the unit is 50 mm thick, filled with 45mm mineral wool insulation material.
Filter : Vee Cell Module for loose filled media, Camcarb VG. Filled with different types of adsorbents depending on application, Recommended face velocity: 1.25m/s.

Camfil PSSA housings are robustly constructed to reflect the industrial environment where they are used. An outer frame is clad with double skinned and insulated body panels. Material options are available depending on the application. Hinged doors on the sides of the housing allow access for loading/removing the CamCarb VG modules. The doors are sealed using a jointless pour-on PU gasket for leak-tightness. The door closure handles incorporate a cam mechanism to ensure effective compression of the door seal.

The principal feature of PSSA housings is the inclusion of a unique positive clamping mechanism that ensures an effective seal is achieved between the CamCarb VG filters and the internal framework in the housing, The eliminates internal by-passes, which are a common features in competitor equipment. the clamps operate via a lead actuating screw, securing the cells into position. On units greater than 1200 mm wide, access doors are provided on both sides of the housing.

Pre and after-filters are fitted in dedicated chambers upstream and downstream of the molecular media beds. The particle filters are access through service doors on the side of the housing. Pre-and after-filters are held in the frame work by a robust clamping mechanism. This ensures elimination of internal leaks. optional differential pressure loss gauges will be mounted on the side of the housing.

The filters are provided with external inlet and outlet flanges to facilitate connection of ductwork using industry standard connections.

Classification:
Leakage class C, according to the EN 15727:2010 standard
Leakage class L1 according to the EN 1886:2007 standard
Mechanical strength Class D1 according to the EN 1886:2007 standard
Filter by pass leakage class F9 according to the EN 1886:2007 standard

Type	Inner flanges W1xH1 (mm)	Velocity (m/s)	No. of Modules High	No. of Modules Wide	Airflow at 0,1s (m³/h)
VG300-0202	600x 600	1.25	2	2	1700
VG300-0302	600x 900	1.25	3	2	2600
VG300-0402	600x 1200	1.25	4	2	3400
VG300-0303	900x 900	1.25	3	3	3800
VG300-0502	600x 1500	1.25	5	2	4300
VG300-0602	600x 1800	1.25	6	2	5100
VG300-0403	900x 1200	1.25	4	3	5100
VG300-0503	900x 1500	1.25	5	3	6400
VG300-0404	1200x 1200	1.25	4	4	6800
VG300-0603	900x 1800	1.25	6	3	7700
VG300-0504	1200x 1500	1.25	5	4	8500
VG300-0604	1200x 1800	1.25	6	4	10200
VG300-0505	1500x 1500	1.25	5	5	10600
VG300-0605	1500x 1800	1.25	6	5	12800
VG300-0606	1800x 1800	1.25	6	6	15300

GigaPleat XPC

Advantages

- Reduced waste through reusable housing
- Up to 2 media types can be combined into the same filter
- Exchangeable panels
- Low outgassing components
- High media cleanliness
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: VOCs, acids, bases, ozone

Application: Clean room recirculation air and clean room make up air
Frame: Stainless steel
Sealant: Polyurethane
Max Temperature (°C): 40° C
Relative Humidity max: 30% - 70%
Particle cleanliness: ISO Class 6
Comment: Gasket Position: 01 - downstream, 10 - upstream
Configuration XPC: 2 layers of 8 panels / full size housing
Outgassing: Individually outgassing tested for VOC emissions on request

Product	Type	Material	Dimensions WxHxD (mm)	Number of panels per layer	Number of panels per housing	Appr. weight with panels (kg)
Box Housing	XPC 610x610x292	Stainless Steel	610x 610x 292	8	16	28
Box Housing	XPC 305x610x292	Stainless Steel	305x 610x 292	4	8	28

Type	Target contaminant	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
XPC A	Acids	610x 610x 292	2600/ 95	28
XPC B	Bases	610x 610x 292	2600/ 95	28
XPC V	Organics	610x 610x 292	2600/ 95	28
XPC A	Acids	305x 610x 292	1100/ 95	16
XPC B	Bases	305x 610x 292	1100/ 95	16
XPC V	Organics	305x 610x 292	1100/ 95	16
XPC BA	Bases, acids	610x 610x 292	2600/ 95	28
XPC AV	Acids, organics	610x 610x 292	2600/ 95	28
XPC BV	Bases, organics	610x 610x 292	2600/ 95	28
XPC BA	Bases, acids	305x 610x 292	1100/ 95	16
XPC AV	Acids, organics	305x 610x 292	1100/ 95	16
XPC BV	Bases, organics	305x 610x 292	1100/ 95	16

GigaPleat XPH

Advantages

- Reduced waste through reusable housing
- Exchangeable panels
- Low outgassing components
- High media cleanliness
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: VOCs, acids, bases, ozone

Application: Clean room recirculation air and clean room make up air
Frame: Stainless steel
Sealant: Polyurethane
Max Temperature (°C): 40° C
Relative Humidity max: 30% - 70%
Particle cleanliness: ISO Class 6
Comment: Gasket Position: 01 - downstream, 10 - upstream
Configuration XPH: 1 layers of 8 panels / full size housing
Outgassing: Individually outgassing tested for VOC emissions on request

Product	Type	Material	Dimensions WxHxD (mm)	Number of panels per layer	Number of panels per housing	Appr. weight with panel (kg)
Header Housing	XPH 592x592x292	Stainless Steel	592x592x292	8	8	17
Header Housing	XPH 287x592x292	Stainless Steel	287x592x592	4	4	9

Type	Target contaminant	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
XPH A	Acids	592x 592x 292	2600/ 60	17
XPH B	Bases	592x 592x 292	2600/ 60	17
XPH V	Organics	592x 592x 292	2600/ 60	17
XPH A	Acids	287x 592x 292	1100/ 60	9
XPH B	Bases	287x 592x 292	1100/ 60	9
XPH V	Organics	287x 592x 292	1100/ 60	9

GigaPleat NXPP

Advantages

- Multiple media types can be combined into the same filter
- Individually VOC outgassing tested
- Extremely small form factor
- Wide range of dimensions
- Low outgassing components
- High media cleanliness
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: VOCs, acids, bases, dopants, refractories, ozone

Application: For clean room ceiling, Fan Filter Units, mini-environment or process equipment
Frame: Anodized aluminium
Gasket: Polyurethane
Max Temperature (°C): 40°C
Relative Humidity max: 30% - 70%
Particle cleanliness: ISO Class 6
Comment: Knife position: KD - downstream, KU - upstream
Gasket Position: 01 - downstream, 10 - upstream, 11- Both downstream and upstream
Faceguard Position: 02 - downstream, 20 - upstream, 22 - Both downstream and upstream
Available filter depth without knife edge: 66, 90, 110, 150, 172 and 200 mm
Available filter depth with knife edge: 66 (+38), 90 (+38), 110 (+38), 150 (+15) mm
Outgassing: Individually outgassing tested for VOC emissions

Type	Target contaminant	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
NXPP B	Bases	610x 610x 90	535/ 15	5
NXPP B	Bases	1220x 610x 90	1070/ 15	10
NXPP A	Acids	610x 610x 90	535/ 15	5
NXPP A	Acids	1220x 610x 90	1070/ 15	10
NXPP V	Organics	610x 610x 90	535/ 15	5
NXPP V	Organics	1220x 610x 90	1070/ 15	10
NXPP ABV	Bases, Acids, Organics	610x 610x 150	535/ 50	14
NXPP ABV	Bases, Acids, Organics	1220x 610x 150	1070/ 50	28

Other dimensions and media combinations available on request. Adapter frames for FFU installation available on request

GigaPleat NXPH

Advantages

- Low pressure drop
- Low weight
- Incinerable
- Low outgassing components
- High media cleanliness
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: VOCs, acids, bases, ozone

Application: Clean room recirculation air, clean room make up air
Frame: ABS
Sealant: Polyurethane
Max Temperature (°C): 40°C
Relative Humidity max: 30% - 70%
Particle cleanliness: ISO Class 6
Comment: Gasket position: 01- downstream, 10 - upstream
Outgassing: Individually outgassing tested for VOC emissions on request.

Type	Target contaminant	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
NXPH B	Bases	592x 592x 292	3300/ 50	12
NXPH B	Bases	592x 287x 292	1600/ 50	6.5
NXPH A	Acids	592x 592x 292	3300/ 60	12
NXPH A	Acids	592x 287x 292	1600/ 60	6.5
NXPH V	Organics	592x 592x 292	3300/ 60	12
NXPH V	Organics	592x 287x 292	1600/ 60	6.5

GigaPleat NXPC

Advantages

- Low pressure drop
- Available in galvanized or stainless steel
- Low outgassing components
- High media cleanliness
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: VOCs, acids, bases, ozone

Application: Clean room recirculation air, clean room make up air
Frame: Stainless steel, Galvanised steel, Aluminium
Sealant: Polyurethane
Max Temperature (°C): 40°C
Relative Humidity max: 30% · 70%
Particle cleanliness: ISO Class 6
Comment: Gasket position: 01 · downstream, 10 · upstream
Outgassing: Individually outgassing tested for VOC emissions on request

Type	Target contaminant	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
NXPC B	Bases	610x 610x 292	2600/ 60	15
NXPC B	Bases	305x 610x 292	1100/ 60	8
NXPC B	Bases	595x 595x 292	2600/ 60	15
NXPC B	Bases	289x 595x 292	1100/ 60	8
NXPC B	Bases	592x 592x 292	2600/ 60	15
NXPC B	Bases	287x 592x 292	1100/ 60	8
NXPC A	Acids	610x 610x 292	2600/ 60	15
NXPC A	Acids	305x 610x 292	1100/ 60	8
NXPC A	Acids	595x 595x 292	2600/ 60	15
NXPC A	Acids	289x 595x 292	1100/ 60	8
NXPC A	Acids	592x 592x 292	2600/ 60	15
NXPC V	Organics	610x 610x 292	2600/ 60	15
NXPC A	Acids	287x 592x 292	1100/ 60	8
NXPC V	Organics	305x 610x 292	1100/ 60	8
NXPC V	Organics	595x 595x 292	2600/ 60	15
NXPC V	Organics	289x 595x 292	1100/ 60	8
NXPC V	Organics	592x 592x 292	2600/ 60	15
NXPC V	Organics	287x 592x 292	1100/ 60	8

GigaPleat NXDP (DH)

Advantages

- Multiple media types can be combined into the same filter
- Low pressure drop
- Low outgassing components
- Individually VOC outgassing tested
- High media cleanliness
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: VOCs, acids, bases, dopants, refractories, ozone

Application: Clean room recirculation air, clean room make up air
Frame: Galvanised steel
Sealant: Polyurethane
Max Temperature (°C): 40°C
Relative Humidity max: 30% - 70%
Particle cleanliness: ISO Class 6
Comment: Gasket Position: 01 - downstream, 10 - upstream
Outgassing: Individually outgassing tested for VOC emissions

Type	Target contaminant	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
NXDP B	Bases	592x 592x 292	3300/ 50	15
NXDP B	Bases	287x 592x 292	1600/ 50	10
NXDP A	Acids	592x 592x 292	3300/ 50	15
NXDP A	Acids	287x 592x 292	1600/ 50	10
NXDP V	Organics	592x 592x 292	3300/ 50	15
NXDP V	Organics	287x 592x 292	1600/ 50	10
NXDP ABV	Bases, Acids, Organics	592x 592x 292	3300/ 140	20
NXDP ABV	Bases, Acids, Organics	287x 592x 292	1600/ 140	12
Other media combinations available on request				

GigaPleat NXDP (PH)

Advantages

- Multiple media types can be combined into the same filter
- Low pressure drop
- Low outgassing components
- Individually VOC outgassing tested
- High media cleanliness
- Predicted removal efficiency and lifetime by Camfil's proprietary software
- Typical target gases: VOCs, acids, bases, dopants, refractories, ozone

Application: Clean room recirculation air, clean room make up air
Frame: Galvanised steel
Sealant: Polyurethane
Max Temperature (°C): 40°C
Relative Humidity max: 30% · 70%
Particle cleanliness: ISO Class 6
Comment: Gasket Position: 01 · downstream, 10 · upstream
Frame : PH = Single Header
Outgassing: Individually outgassing tested for VOC emissions

Type	Target contaminant	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
NXDP B	Bases	592x 592x 292	3300/ 55	15
NXDP B	Bases	287x 592x 292	1600/ 55	10
NXDP A	Acids	592x 592x 292	3300/ 55	15
NXDP A	Acids	287x 592x 292	1600/ 55	10
NXDP V	Organics	592x 592x 292	3300/ 55	15
NXDP V	Organics	287x 592x 292	1600/ 55	10
NXDP ABV	Bases, Acids, Organics	592x 592x 292	3300/ 190	20
NXDP ABV	Bases, Acids, Organics	287x 592x 292	1600/ 190	12

Other target gas combinations are available on request.

ProCarb VDBe

Advantages

- Low life cycle cost for exhaust applications
- Leak-free design
- Simple, safe and clean procedure for filling filters
- Easy maintenance access
- Large area footprint for minimum foundation requirements
- Can handle air flows up to 105,000 m³/h
- Magnahelic filter gauges for maintenance planning

Vertical Deep Bed filters (VDBe) are durable cost effective molecular filtration solutions for exhaust streams from industrial processes. This product is designed to ensure the very highest levels of performance in those applications where the elimination of toxic gases and odours is essential for operational security and/or regulatory compliance. Performance is delivered in terms of extremely high removal efficiency and the longest possible lifetime per fill of filtration media. Standard features ensure reliable and safe operation. Two equipment configurations are available with airflow capacities ranging from 10,000 to 105,000 m3/h. Virtually any molecular filtration media may be selected for use in the filters, depending on the contaminant(s) to be controlled. VDBe filters are completely passive in operation and require very little routine maintenance.

HDB

Advantages

- Leak-free design
- Gravity assisted media unloading
- Corrosion resistant
- Very long contact time for optimised lifetime and high level of protection
- Can be used with any filtration media to target specific gases
- Rectangular footprint for minimum use of plant room space
- Can handle air flows up to 5,000 m³/h

The Horizontal Deep Bed filters (HDB) filter is a robust solution for removing corrosive gases, odours or toxic gases from make-up air and exhaust air systems with very high efficiency on a single pass basis. The filters contain horizontal beds of molecular filtration media that are retained on top of a horizontal perforated screen. The air passes vertically through the media bed. The normal airflow direction is upward, but this arrangement can be reversed in some applications. The filters utilise a very deep bed of media and they are particularly well suited to applications that combine low to moderate airflows and relatively high contaminant concentrations.

A range of standard sizes accommodate flows from 500 m3/h to 5,000 m3/h. Pre and after-filters can be incorporated by the addition of bolt-on housing to provide a total filtration solution. HDB filters are safe and simple to install. They are completely passive in operation and require little or no routine maintenance beyond changing the filters and media. Fans and variable speed drives can be incorporated as options.

HDC

Advantages

- Leak-free design
- Flexible design for supply, recirculation or exhaust air
- Refillable cells
- Up to 2 stages for targeting multiple gas
- Optional pre and after particle filter sections
- Can handle air flows up to 24,400 m3/h

The HDC units (Horizontal Deep Cell) product is designed to ensure high levels of performance in those applications where the elimination of corrosive gases is essential to meet the tightest environmental conditions that are specified by machinery manufacturers. HDC's are configured for horizontal airflow and use a standard size re-fillable cell in either a single or double pass arrangement, using this arrangement enables an engineered approach to eliminating internal leaks that would otherwise degrade performance. A range of standard housings are available to hold the various quantities of HDC cells to provide airflow ranging from 1,100 m3/h to 24,400 m3/h. The media in the cells can be refurbished on-site, without the need for special tools. HDCs can be supplied with ducts, fans and discharge stacks.
The housings are designed to ensure ease of installation and servicing procedures. Virtually any molecular filtration media may be selected for use in the HDC cells, depending on the contaminant(s) to be controlled. After commissioning the filters and housings are completely passive in operation and require minimal routine maintenance.

ProCarb VDBs

Advantages

- Low life cycle cost for corrosion control
- Leak-free design
- Compact footprint with integrated pre and after filters
- Double skin for internal temperature control
- Multiple bed arrangement for targetting multiple gases
- Can handle air flows up to 28,000 m3/h

Vertical Deep Bed Supply filters (VDBs) are members of the Camfil "ProCarb" range of industrial molecular filtration solutions. This product is designed to ensure the very highest levels of performance in those applications where the elimination of corrosive gases is essential to meet the tightest environmental conditions that are specified by electrical equipment manufacturers. Heavy process industries rely on sophisticated electronic control systems and power distribution systems to operate their processes safely and with high efficiency. In certain industries, acidic gases that are strongly corrosive are present in the air. These gases are liberated from the process raw materials. If left uncontrolled, these gases can degrade; even destroy the electronic/electrical control systems.

HDB Biogas

Advantages

- Leak-free design
- Gravity assisted media unloading
- Corrosion resistant
- Very long contact time for optimised lifetime
- Wide choice of adsorbent for H2S and siloxane removal
- Can handle air flows up to 2,000 m³/h

Horizontal Deep Bed Biogas (HDB-BG) filters are members of the "ProCarb" range of industrial molecular filtration solutions. This product is specifically designed for use in the purification of biogas, particularly the removal of hydrogen sulphide and siloxanes. These are important process steps to protect the gas engines where biogas is combusted to produce energy and heat.
Depending on the biogas feedstock and source, high concentrations of one of both gases might be present. Hydrogen sulphide causes corrosion and siloxanes cause erosion.

HDB-BG filters are designed to work at the elevated pressures experienced in biogas processes and they provide extended contact times necessary to handle the high contaminant concentrations and ensure long lifetime.

Models are available to suit different biogas flow rates.

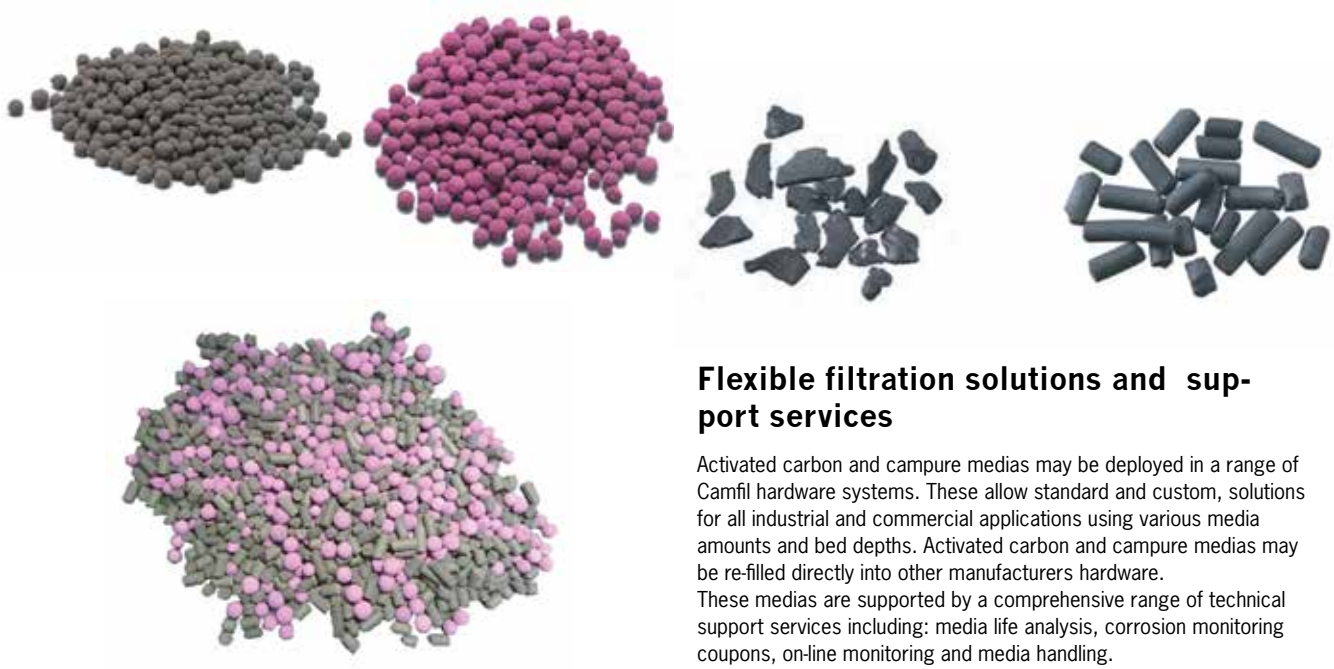
Activated Carbon and Campure Media

Effective molecular filtration media

A comprehensive range of molecular filtration medias for the control of corrosive gases, toxic gases, odours and other gaseous pollutants. The medias may be used as part of original equipment packages or as replacement for spent media.
The campure media range comprises chemically impregnated adsorbents based on activated alumina which may be use on their own or blended with activated carbon.

Demanding applications

Campure medias are designed for the most difficult and demanding applications in industrial and commercial environments. The principal areas of use include the control of acidic gases in pulp and paper, oil refining, and steel production industries. If left untreated, acidic gases such as hydrogen sulphide, sulphur dioxide, chlorine and oxides of nitrogen may cause serious damage to key electrical equipment essential to process management. Other applications include the control of acidic and odourous gases in waste water treatment applications and the protection of sensitive artefacts in museums and art galleries.



Flexible filtration solutions and support services

Activated carbon and campure medias may be deployed in a range of Camfil hardware systems. These allow standard and custom, solutions for all industrial and commercial applications using various media amounts and bed depths. Activated carbon and campure medias may be re-filled directly into other manufacturers hardware.
These medias are supported by a comprehensive range of technical support services including: media life analysis, corrosion monitoring coupons, on-line monitoring and media handling.

Media	Target gases	Media type
CEX003 CEX004	VOCs, hydrocarbons, general odours	Extruded activated carbon, 3 and 4mm diameter (coal based).
LGS036 LGS048	Light VOCs, hydrocarbons, general odours	Granular activated carbon (coconut shell based).
Impregnated Carbon	Acids, Alkalines, etc.	A wide range of impregnation is available.
CamPure 4	H_2S, SO_2, formaldehyde, ethylene, low mol. wt. aldehydes.	Activated alumina with chemical impregnation.
CamPure 8	High capacity for H_2S, SO_2 formaldehyde, ethylene, low mol. wt. aldehydes.	Activated alumina with chemical impregnation.
CamPure 10	High capacity for H_2S, SO_2 formaldehyde, ethylene, low mol. wt. aldehydes	Activated alumina with chemical impregnation.
CamPure 15	High capacity for acids	Activated alumina with chemical impregnation.
CamPure 32	High capacity for H2S removal in biogas	Hybrid media
CamPure D32PLUS	High capacity for H2S and siloxane removal in biogas	Activated carbon media
Blends	Any of the Campure medias may be blended with either of the activated carbon based medias to provide an adsorption system that combines broad spectrum and highly specific characteristics.The usual blend ratio is 50/50 by volume.	CP83 (CamPure 8 + CEX003) CP43 (CamPure 4 + CEX003) CP84 (CamPure 8 + CEX004) CP44 (CamPure 4 + CEX004)

AMC filter media for pleated filters

AMC removal vs filter model	V	B	A
Acids			P
Bases		P	
Condensables (B.Pt > 150 deg. C)	P		S
Dopants (Organophosphates)	P		S
Dopants (BF3)			P
Organics (B.Pt < 150 deg. C)	P		
Ozone	P		S
*P - Primary Target, S- Secondary Target For specific contaminants, please contact Camfil			

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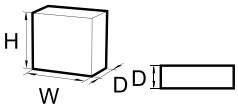
PHAP Pharmaseal AP



Advantages

- Includes all essentials features for pharmaceutical and health care applications.
- Quick filter change, quick upstream aerosol injection dispersion, quick aerosol sampling and pressure test.
- In-situ scanning with local penetration ≤ 0.01% (typically) is guaranteed.
- Heavy duty aluminium fully welded to ensure air-tight housing.

Application: Non-unidirectional (turbulent) airflow clean rooms in pharmaceutical and health care applications.
Installation Options: Suspended by 4 lifting eyes or rested on ceiling grid.
Comment: Type: Ceiling-mount ducted, room-side operatable air supply module with gel-seal HEPA/ULPA filters and butterfly damper.
Construction: Casing of 2.8 mm extruded aluminium with fully welded joints, powder coated as standard.
Filter seal: Self-healing, non-flowing silicon gel approved by Camfil for pharmaceutical applications..
Duct connection: Mould drawn one piece, seamless aluminium inlet collar sealed airtight to the back plate.
Damper: Room side adjustable heavy duty butterfly assembly with air diffusion disk for even airflow distribution.
Challenge aerosol: Quick-connect airtight nickel plated brass port at room side. Integrated aerosol-dispersion assembly for even aerosol distribution.
Upstream aerosol sampling and pressure measurement: At room side, a quick-connecting airtight port for pressure drop measurement and upstream aerosol quick sampling to determine if the upstream aerosol concentration is sufficient for filter scanning test downstream.
Faceguard: Stainless steel or aluminium diffuser with swirling blades, perforated style diffuser available as option, powder-coated if required.

Art. No.	Type	Dimensions WxHxD (mm)	In-Situ scanning local min. efficiency @ 0.3 µm	Diameter (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
Aluminium diffuser in center perforated and 4-way blades style						
4130005C	PHAP-476x476-A-TS-C10-A11-O-BS-A-P	476x 476x 254	99.99%	250	500/ 205	17.5
4130006C	PHAP-635x635-A-TS-C12-A11-O-BS-A-P	635x 635x 254	99.99%	305	1000/ 205	23
4130007C	PHAP-695x695-A-TS-C12-A11-O-BS-A-P	695x 695x 254	99.99%	305	1250/ 205	24.5
4130008C	PHAP-756x756-A-TS-C14-A11-O-BS-A-P	756x 756x 254	99.99%	350	1500/ 205	27
4130009C	PHAP-867x867-A-TS-C16-A11-O-BS-A-P	867x 867x 254	99.99%	405	2000/ 210	33
Aluminium diffuser in swirling style						
4130010C	PHAP-476x476-A-TS-C10-A31-O-BS-A-P	476x 476x 254	99.99%	250	500/ 205	17.5
4130011C	PHAP-635x635-A-TS-C12-A31-O-BS-A-P	635x 635x 254	99.99%	305	1000/ 205	23
4130012C	PHAP-695x695-A-TS-C12-A31-O-BS-A-P	695x 695x 254	99.99%	305	1250/ 205	24.5
4130013C	PHAP-756x756-A-TS-C14-A31-O-BS-A-P	756x 756x 254	99.99%	350	1500/ 205	27
4130014C	PHAP-867x867-A-TS-C16-A31-O-BS-A-P	867x 867x 254	99.99%	405	2000/ 210	33
Aluminium diffuser in fully perforated style; used at air velocity ≤ 0 .5m/s						
4130015C	PHAP-476x476-A-TS-C10-A21-O-BS-A-P	476x 476x 254	99.99%	250	500/ 205	17.5
4130016C	PHAP-635x635-A-TS-C12-A21-O-BS-A-P	635x 635x 254	99.99%	305	1000/ 205	23
4130017C	PHAP-695x695-A-TS-C12-A21-O-BS-A-P	695x 695x 254	99.99%	305	1250/ 205	24.5
4130018C	PHAP-756x756-A-TS-C14-A21-O-BS-A-P	756x 756x 254	99.99%	350	1500/ 205	27
4130019C	PHAP-867x867-A-TS-C16-A21-O-BS-A-P	867x 867x 254	99.99%	405	2000/ 210	33
55304 diffuser in swirling style						
4120151C	PHAP-476x476-A-TS-C1O-S30-O-BS-A-P	476x 476x 254	99.99%	250	500/ 205	19
4130001C	PHAP-635x635-A-TS-C12-S30-O -BS-A-P	635x 635x 254	99.99%	305	1000/ 205	26
4130002C	PHAP-695x695-A-TS-C12-S30-O-BS-A-P	695x 695x 254	99.99%	305	1250/ 205	28
4130003C	PHAP-756x756-A-TS-C14-S30-O-BS-A-P	756x 756x 254	99.99%	350	1500/ 205	31
4130004C	PHAP-867x867-A-TS-C16-S30-O-BS-A-P	867x 867x 254	99.99%	405	2000/ 210	38

Tolerance of pressure drop is +/- 15%. Other dimensions are available on request
Only 0305 and 0350 inlet collars are mould drawn one-piece
**Note : Please refer to the next 2 tables of ' Model number system' for model selection per detail options*

Model Number System For HEPA Supply Module

PHAP-.	695x695-	A-	TS-	C12-	S	1	0-	0-	BS-	A-	P-
1	2	3	4	5	6	7	8	9	10	11	12

Naming Description						
1. Products :	Pharmaseal AP HEPA supply module					
2. Hood standard size : (LengthxWidth (mm) (excl.trim) *if other sizes, please state	476x476	635x635	695x695	756x756	867x867	
3. Hood construction material :	A=Heavy duty extruded Aluminium (standard)			S=Stainless Steel 304#(optional)		
4. Inlet location :	TS=Top Side (Standard)			SS=Side		
5. Inlet style and size :	C12=Round, 12"=305mm		C14=Round, 14"=350mm		Other sizes are fully welded instead of mould-drawn one piece	
Mould-drawn top inlet collar and top plate of one-piece aluminium (standard):						
6. Outlet diffuser material :	A=Aluminium			S=Stainless steel 304		
7. Diffuser style :	1=Center perforated and 4-way blades surrounded		2=ully perforated style	3=Swirling	4=Other style (specify separately)	
8. Diffuser surface treatment :	1=Powder coated (standard color RAL9016 or specify)			0=No coating		
9. Diffuser location :	I=Inside the hood (within)			0=Outside the hood (extended)		
10. Damper :	BS= Butterfly damper, Stainless steel 304			NO= No damper		
11. Aerosol injection and despersion :	A = Yes (air tight quick connect)			N = No		
12. Upstream aerosol sampling :	P = Yes (air tight quick-connect)			N = No		

Filter Element

Art. No.	Type	PHF Size (mm)	Housing Dimensions WxHxD (mm)	Airflow/pressure drop (m^3/h/Pa)	Efficiency	Weight (kg)
15218202C	PHF-LSS- 416x416-01/22	416x 416x 110	476x 476x 254	500/ 205	H14	4.1
15218215C	PHF-LSS- 575x575-01/22	575x 575x 110	635x 635x 254	1000/ 205	H14	6.5
15218208C	PHF-LSS- 635x635-01/22	635x 635x 110	695x 695x 254	1250/ 205	H14	7.6
15218213C	PHF-LSS-696x696-01/22	696x 696x 110	756x 756x 254	1500/ 205	H14	8.8
15218232C	PHF-LSS-807x807-01/22	807x 807x 110	867x 867x 254	2000/ 210	H14	12.2

Tolerance of pressure drop is +/- 15%

Other dimensions are available on reques

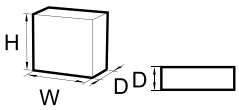
**Note : Please refer to the next 2 tables of ' Model number system' for model selection per detail options*

Model Number System for Filter Element

PHAP-.	LSS-	635x635-	01/-	22-
1	2	3	4	5

Naming Description					
1. Products :	Pharmaseal AP filter element				
2. Seal between filter and hood :	LSS : Liquid Seal, Special (Silicone gel)				
3. Filter standard size (width x height) mm :	416x416	575x575	635x635	807x807	Other odd sizes required, please specify
4. Seal groove location :	01=Air Outlet Side (Standard)		10 : Air Inlet Side		
5. Face guard :	22 : Both Sides (standard)				

PHAP® Exhaust AP



Advantages

- Includes all essential functions for pharmaceutical and bio-cleanroom applications
- In-situ efficiency 99.97% or higher is guaranteed
- High capacity "V" -bank HEPA filter inside results in low pressure drop, low energy cost and long service life.
- Heavy duty aluminium or stainless steel fully welded to ensure the airtight robust construction
- All ports of injection and samplings are of air tight quick-connection design

Application: Exhaust/return air system for pharmaceutical and bio-cleanroom applications
Frame: Stainless steel, Aluminium
Installation Options: Side wall mounted with site-made metal brackets (instructed but not supplied by Camfil).
Comment: Type: Wall-mount, room side operatable, efficiency tested exhaust/return air housing with Sofilair filters.
Construction: Aluminium or stainless steel 304 fully welded, powder coated if required.
Filter seal: Endless PU gasket on filter.
Outlet connection: Flanged rectangular duct connection.
Damper: Room-side adjustable butterfly damper assembly, stainless steel #304.
Room-side grill: Stainless steel 304, or aluminium painted.
Auxiliary test shroud: Movable room-side,functions for upstream aerosol injection and dispersion, upstream & downstream aerosol sampling.
Accessory: Downstream sampling kit along with every housing supplied.

Art. No.	Type	Dimensions WxHxD (mm)	Prefilters WxHxD (mm)	Filter size HxWxD (mm)	Weight (kg)	Filter Dimension (WxH) mm
4200007C	PWAP- 670x670- S-A21- BS	670x 670x 880	595x 595x 45	610x 610x 292	26	500x 400
4200008C	PWAP- 670x365- S-A21- BS	365x 670x 880	289x 594x 45	610x 305x 292	17	250x 400

Note: Tolerance of the pressure drop data within +/- 20% as standard.
Please refer to next "Model Number System" for model selection per detail option

Model Number System

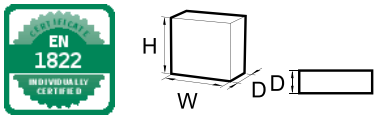
PHAP-.	670x670	S-	S	2	0	BS-
1	2	3	4	5	6	7

Naming Description	
1. Products :	Pharmaseal AP Wall Mount Exhaust/Return Air HEPA Housing
2.Housing standard 2 sizes :Width x Height (excl. trim) x Depth (mm)	670x670x880 (with Sofilair filter 610x610x292mm)
	670x365x880 (with Sofilair filter 305x610x292mm)
3. Outlet location :	S= Side Outlet (for upwards or downwards), standard
	B=Back Outlet
4. Diffuser style :	2 = Fully perforated, standard
5. Diffuser surface coating :	0= No treatment or Coating
	1=Powder coated, RAL 9016, for other color, please separately
	2=Other Style, please state separately
6. Damper at Outlet :	BS = Butterfly damper, stainless steel #304
	No=No damper

Slimline RSR

Advantages

- Low Profile
- Room side replaceable HEPA filter module
- Housing can be installed from room and top side
- Gap free, architecturally pleasing room side surface
- Adjustable room side diffusion disc
- Gel seal between filter and housing
- Noise reducing rounded collar
- Welded housing



Filter
Application: Microelectronic, Hospitals, Life science
Type: Hood Filter
Frame: Anodized aluminium
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
MPPS efficiency: H13 ≥ 99.95%
Max Temperature (°C): 93° C
Comment: DOP efficiency:≥ 99.99
Fire rating: UL 900
Housing
Frame: Extruded aluminium
Back plate: Hot dipped galvanized steel

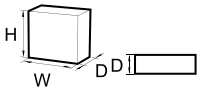
Filter

Art. No.	Type	EN1822	Filter size HxWxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
15290001	Slimline RSR - 600*600	H13	600x 600x	4.5/ 121	6.98	4.7
15290002	Slimline RSR - 905*600	H13	600x 905x	680/ 120	11.1	6.6
15290003	Slimline RSR - 1210*600	H13	600x 1210x	947/ 119	15.46	7.9

Housing

Art. No.	Type	Dimensions WxHxD (mm)	Con. Ø (mm)	Area (m²)	Weight (kg)
4109001	SLM Housing 600*600* Ø250	600x 600x 133	250	6.98	9.72
4109002	SLM Housing 905*600* Ø305	905x 600x 133	305	11.1	9.8
4109003	SLM Housing 1210*600* Ø305	1210x 600x 133	305	15.46	9.91
**Other dimensions, finishes and different options are available on request*					

CleanSeal AP



Advantages

- Aesthetic pleasing room side appearance
- Tool free, single person filter installation
- Several mounting options
- Leak free design with welded corners
- Fits Camfil standard MD/MG/MX cleanrooms panels with dry or gel seal
- Noise reducing rounded terminal

Application: Turbulent airflow in clean rooms
Frame: Galvanised steel
Gasket: Polyurethane
Comment: Construction: Aluminium, Galvanized steel, fully welded seams
Finishing: RAL9016
Connection: By ribbed circular inlet continuous welded on top
For Filters: MEGALAM MD/MX/MD PU gasket frame height (66/90/110mm) (to be ordered separately)
Filter Mounting: Tool·less multi·height quick release lever clamp for immediate and secured clamping including gasket compression limiter and filter retainer.
Control equipment: room side access: 1 port for dp or 100% measurement.
Housing installation: by removable «universal blocks, for suspension by hangers, or integration into clean room ceiling panels or fitting into T bar grids system
Diffusion plates: Perforated or swirl

Housing Gasket

Art. No.		Type	Dimensions WxHxD (mm)	Filter size HxWxD (mm)	Diffusers
	4108001	CL·AL·4P4·P·MD·T·C·250·00·AAA0	539x 539x 260/250	457x 457x 66	Perforated
	4108002	CL·AL·5P5·P·MD·T·C·250·00·AAA0	590x 590x 260/250	508x 508x 66	Perforated
MD	4108003	CL·AL·5P5·P·MD·T·C·250·00·AAA0	590x 590x 260/250	508x 508x 66	Swirl
	4108004	CL·AL·6P6·P·MD·T·C·250·00·AAA0	692x 692x 260/250	610x 610x 66	Perforated
	4108005	CL·AL·11P5·P·MD·T·C·250·00·AAA0	1190x 590x 260/250	508x 1108x 66	Perforated
	4108006	CL·AL·12P6·P·MD·T·C·250·00·AAA0	1302x 692x 260/250	610x 1220x 66	Perforated
	4108007	CL·AL·4P4·P·MX·T·C·250·00·AAA0	539x 539x 260/250	457x 457x 90	Perforated
	4108008	CL·AL·5P5·P·MX·T·C·250·00·AAA0	590x 590x 260/250	508x 508x 90	Perforated
MX	4108009	CL·AL·5P5·P·MX·T·C·250·00·AAA0	590x 590x 260/250	508x 508x 90	Swirl
	4108010	CL·AL·6P6·P·MX·T·C·250·00·AAA0	692x 692x 260/250	610x 610x 90	Perforated
	4108011	CL·AL·11PS·P·MX·T·C·250·00·AAA0	1190x 590x 260/250	508x 1108x 90	Perforated
	4108012	CL·AL·12P6·P·MX·T·C·250·00·AAA0	1302x 692x 260/250	610x 1220x 90	Perforated
	4108013	CL·AL·4P4·P·MG·T·C·250·00·AAA0	539x 539x 260/250	457x 457x 110	Perforated
MG	4108014	CL·AL·5P5·P·MG·T·C·250·00·AAA0	590x 590x 260/250	508x 508x 110	Perforated
	4108015	CL·AL·5P5·P·MG·T·C·250·00·AAA0	590x 590x 260/250	508x 508x 110	Swirl
	4108016	CL·AL·6P6·P·MG·T·C·250·00·AAA0	692x 692x 260/250	610x 610x 110	Perforated
	4108017	CL·AL·11P5·P·MG·T·C·250·00·AAA0	1190x 590x 260/250	508x 1108x 110	Perforated
	4108018	CL·AL·12P6·P·MG·T·C·250·00A· AA0	1302x692x260/250	1220x610x110	Perforated

**305mm,315mm & 350mm drawn type collar size available on request.*
Gasket : P·PU & G·Gel

Housing Gel

Art. No.		Type	Dimensions WxHxD (mm)	Filter size HxWxD (mm)	Diffusers
	4108019	CL-AL-4P4-G-MD-T-C-250-00-AAAO	539x 539x 260/250	457x 457x 71	Perforated
	4108020	CL-AL-5P5-G-MD-T-C-250-00-AAAO	590x 590x 260/250	508x 508x 71	Perforated
MD	4108021	CL-AL-5P5-G-MD-T-C-250-00-AAAO	590x 590x 260/250	508x 508x 71	Swirl
	4108022	CL-AL-6P6-G-MD-T-C-250-00-AAAO	590x 692x 260/250	610x 610x 71	Perforated
	4108023	CL-AL-11P5-G-MDT-C-250-00-AAAO	692x 590x 260/250	508x 1108x 71	Perforated
	4108024	CL-AL-12P6-G-MD-T-C-250-00-AAAO	1190x 692x 260/250	610x 1220x 71	Perforated
	4108025	CL-AL-4P4-G-MX-T-C-250-00-AAAO	1302x 539x 260/250	457x 457x 105	Perforated
	4108026	CL-AL-5P5-G-MX-T-C-250-00-AAAO	539x 590x 260/250	508x 508x 105	Perforated
MX	4108027	CL-AL-5P5-G-MX-T-C-250-00-AAAO	590x 590x 260/250	508x 508x 105	Swirl
	4108028	CL-AL-6P6-G-MX-T-C-250-00-AAAO	590x 692x 260/250	610x 610x 105	Perforated
	4108029	CL-AL-11P5-G-MX-T-C-250-00-AAAO	692x 590x 260/250	508x 1108x 105	Perforated
	4108030	CL-AL-12P6-G-MX-T-C-250-00-AAAO	1190x 692x 260/250	610x 1220x 105	Perforated
	4108031	CL-AL-4P4-G-MG-T-C-250-00-AAAO	1302x 539x 260/250	457x 457x 115	Perforated
	4108032	CL-AL-5P5-G-MG-T-C-250-00-AAAO	539x 590x 260/250	508x 508x 115	Perforated
MG	4108033	CL-AL-5P5-G-MG-T-C-250-00-AAAO	590x 590x 260/250	508x 508x 115	Swirl
	4108034	CL-AL-6P6-G-MG-T-C-250-00-AAAO	590x 692x 260/250	610x 610x 115	Perforated
	4108035	CL-AL-11P5-G-MG-T-C-250-00-AAAO	692x 590x 260/250	508x 1108x 115	Perforated
	4108036	CL-AL-12P6-G-MG-T-C-250-00-AAAO	1190x 692x 260/250	610x 1220x 115	Perforated

**305mm,315mm & 350mm drawn type collar size available on request.*
Gasket : P-PU & G-Gel

CleanSeal Top-C

Advantages

- Tool-less filter clamping 100% secured and immediate
- Quick grid locking for immediate access to filter
- Long lasting reliability and tightness: robust fully welded construction
- Complete interchangeable diffusion plates range

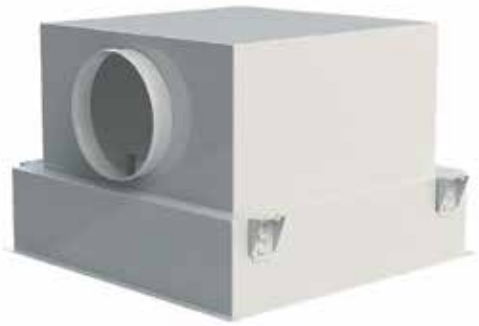
Application: Turbulent airflow in clean rooms
Comment: Construction: Steel, fully welded seams
Finish: White epoxy coated RAL 9010 (SW)
Available in material SS 304 (S4) and SS 316L (S6)
Filters and air diffusers must be ordered separately:
Filters: MEGALAM MD/MX/MD. PU gasket frame height (66/90/110mm)
Air diffusers: Swirl-(SW), Perforated- (PF) Adjustable - (AV) and Four way diffuser (4W)
For more information about filters and air diffusers, see the relevant product pages
Gasket type options: PU and GEL
Control equipment: Room side accessible pressure drop port

The CleanSeal is a reliable and versatile filter housing especially developed for hospitals, clean rooms and Life Science facilities. This terminal housing equipped with Camfil´s premium HEPA filters makes an ideal solution to achieve the high demands on air cleanliness by minimizing the number of particles and microorganisms in the air.
CleanSeal is available in several standard sizes and different types of connections/configurations.
The filter clamping system is adjustable for different filter depths. This scalability allows an upgrade of existing filter to a deeper filter with lower pressure drop. Low pressure drop filters can be used either to maintain pressure cascades or to get energy savings.
Thanks to the tool-less filter clamping and unique filter retainer, the handling and maintenance if very easy.
The filter is pre-positioned in the housing which makes it possible to handle by only one person.
The installation of the housing is very easy with supporting blocks.
The hinged diffusor plate gives direct access to the filter and control ports and is opened with just a badge/card.
Consult Camfil office for additional information.

Type	Dimensions WxHxD (mm)	Filter size HxWxD (mm)	Con. Ø (mm)	Weight (kg)
CL-SW-3P3-(X1)-XX-(X2)-C-160-N-00-(X3)AA0	392x 392x 311	305x 305x 66	160	6.7
CL-SW-4P4-(X1)-XX-(X2)-C200-N-00-(X3)AA0	544x 544x 311	457x 457x 66	200	10.1
CL-SW-4P4-(X1)-XX-(X2)-C250-N-00-(X3)AA0	544x 544x 311	457x 457x 66	250	10
CL-SW-5P5-(X1)-XX-(X2)-C250-N-00-(X3)AA0	595x 595x 311	508x 508x 66	250	11.3
CL-SW-5P5-(X1)-XX-(X2)-C315-N-00-(X3)AA0	595x 595x 311	508x 508x 66	315	11.1
CL-SW-6P6-(X1)-XX-(X2)-C250-N-00-(X3)AA0	697x 697x 311	610x 610x 66	250	14.1
CL-SW-6P6-(X1)-XX-(X2)-C315-N-00-(X3)AA0	697x 697x 311	610x 610x 66	315	13.9
CL-SW-11P5-(X1)-XX-(X2)-C315-N-00-(X3)AA0	1195x 595x 311	1108x 508x 66	315	19.1
CL-SW-12P6-(X1)-XX-(X2)-C315-N-00-(X3)AA0	1307x 697x 311	1220x 610x 66	315	22.7

ATTENTION : references for housing factory set Megalam MD (other settings on request)
NOTE 1 : (*) : INCLUDING PERIPHERAL RETURN OF20mm
NOTE 2 : (**) : INCLUDING COLLAR HEIGHT OF 46mm
NOTE 3 : (***) : For ordering: To select filter frame height replace "xx" with "MD" for Megalam MD-66mm, "MX" for Megalam MX-90mm and "MG" for Megalam MG-110mm
NOTE 4 : (X1) : P for PU & G for Gel
NOTE 5 : (X2) : T for Top Entry & S for Side Entry
NOTE 6 : (X3) : A for PU & G for Gel
SW= Standard version steel white RAL 9010 (Optional S4=Stainless steel SS 304, S6= SS 316L)

CleanSeal Side-C



Advantages

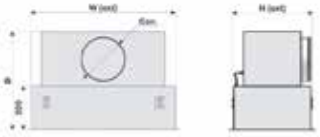
- Tool-less filter clamping 100% secured and immediate
- Quick grid locking for immediate access to filter
- Complete interchangeable diffusion plates range
- Long lasting reliability and tightness: robust fully welded construction
- Option with damper

Application: Turbulent airflow in clean rooms
Comment: Construction: Steel, fully welded seams
Finish: White epoxy coated RAL 9010 (SW)
Available in material SS 304 (S4) and SS 316L (S6)
Filters and air diffusers must be ordered separately:
Filters: MEGALAM MD/MX/MD.PU gasket frame height (66/90/110mm)
Air diffusers: Swirl-(SW), Perforated- (PF) Adjustable - (AV) and Four way diffuser (4W)
For more information about filters and air diffusers, see the relevant product pages
Gasket type options : PU and GEL
Control equipment: Room side accessible pressure drop port
Option: with damper

The CleanSeal is a reliable and versatile filter housing especially developed for hospitals, clean rooms and Life Science facilities. This terminal housing equipped with Camfil´s premium HEPA filters makes an ideal solution to achieve the high demands on air cleanliness by minimizing the number of particles and microorganisms in the air.
CleanSeal is available in several standard sizes and different types of connections/configurations.
The filter clamping system is adjustable for different filter depths. This scalability allows an upgrade of existing filter to a deeper filter with lower pressure drop. Low pressure drop filters can be used either to maintain pressure cascades or to get energy savings.
Thanks to the tool-less filter clamping and unique filter retainer, the handling and maintenance if very easy.
The filter is pre-positioned in the housing which makes it possible to handle by only one person.
The installation of the housing is very easy with supporting blocks.
The hinged diffusor plate gives direct access to the filter and control ports and is opened with just a badge/card.
Consult Camfil office for additional information.

Type	Dimensions WxHxD (mm)	Filter size HxWxD (mm)	Con. Ø (mm)	Weight (kg)
CL-SW-3P3-P-xx-S-C-160-N-00-AAA0	367x 355x 410	305x 305x	160	9,2
CL-SW-3P6-P-xx-S-C-200-N-xx-AAA0 *	660x 367x 450	305x 610x	200	14,4
CL-SW-4P4-P-xx-S-C-200-N-00-AAA0	519x 507x 450	457x 457x	200	14,7
CL-SW-4P4-P-xx-S-C-250-N-00-AAA0	519x 507x 500	457x 457x	250	15,5
CL-SW-5P5-P-xx-S-C-250-N-00-AAA0	570x 558x 500	508x 508x	250	17,5
CL-SW-5P5-P-xx-S-C-315-N-00-AAA0	570x 558x 565	508x 508x	315	18,7
CL-SW-6P6-P-xx-S-C-250-N-00-AAA0	672x 660x 500	610x 610x	250	21,2
CL-SW-6P6-P-xx-S-C-315-N-00-AAA0	672x 660x 565	610x 610x	315	22,7
CL-SW-9P6-P-xx-S-C-315-N-xx-AAA0 *	965x 672x 565	610x 915x	315	29,8
CL-SW-9P6-P-xx-S-C-355-N-xx-AAA0 *	965x 672x 605	610x 915x	355	31,0
CL-SW-9P9-P-xx-S-C-315-N-00-AAA0	977x 965x 565	915x 915x	315	37,8
CL-SW-9P9-P-xx-S-C-355-N-00-AAA0	977x 965x 605	915x 915x	355	39,3
CL-SW-11P5-P-xx-S-C-315-N-xx-AAA0 *	1158x 570x 565	508x 1108x	315	31,1
CL-SW-11P5-P-xx-S-C-355-N-xx-AAA0 *	1158x 570x 605	508x 1108x	355	32,4
CL-SW-12P6-P-xx-S-C-315-N-xx-AAA0 *	1270x 672x 565	610x 1220x	315	36,4
CL-SW-12P6-P-xx-S-C-355-N-xx-AAA0 *	1270x 672x 605	610x 1220x	355	37,9

The item types in the table are PU versions (for filters with PU gasket). Other sizes and variants on request.
For ordering: To select filter frame height replace "xx" with "MD" for Megalam MD, "MX" for Megalam MX and "MG" for Megalam MG
**Entry Position (xx) : 00 - All Square, LS - Long Side and SS - Short Side*
SW= Standard version steel white RAL 9010 (Optional S4=Stainless steel SS 304, S6= SS 316L)
P= PU version & G= GEL version



CleanSeal Side-R

Advantages

- For limited space above false ceiling
- Tool-less filter clamping 100% secured and immediate
- Quick grid locking for immediate access to filter
- Complete interchangeable diffusion plates range
- Long lasting reliability and tightness: robust fully welded construction

Application: Turbulent airflow in clean rooms, especially suitable for applications with limited space above the false ceiling
Comment: Construction: Steel, fully welded seams
Finish: White epoxy coated RAL 9010 (SW)
Available in material SS 304 (S4) and SS 316L (S6)
Filters and air diffusers must be ordered separately:
Filters: MEGALAM MD/MX/MD.PU gasket frame height (66/90/110mm)
Air diffusers: Swirl·(SW), Perforated· (PF) Adjustable · (AV) and Four way diffuser (4W)
For more information about filters and air diffusers, see the relevant product pages
Gasket type options: PU and GEL
Control equipment: Room side accessible pressure drop port

The CleanSeal is a reliable and versatile filter housing especially developed for hospitals, clean rooms and Life Science facilities. This terminal housing equipped with Camfil´s premium HEPA filters makes an ideal solution to achieve the high demands on air cleanliness by minimizing the number of particles and microorganisms in the air.
CleanSeal is available in several standard sizes and different types of connections/configurations.
The filter clamping system is adjustable for different filter depths. This scalability allows an upgrade of existing filter to a deeper filter with lower pressure drop. Low pressure drop filters can be used either to maintain pressure cascades or to get energy savings.
Thanks to the tool-less filter clamping and unique filter retainer, the handling and maintenance if very easy.
The filter is pre-positioned in the housing which makes it possible to handle by only one person.
The installation of the housing is very easy with supporting blocks.
The hinged diffusor plate gives direct access to the filter and control ports and is opened with just a badge/card.
Consult Camfil office for additional information.

Type	Dimensions WxHxD (mm)	Duct connection (mm)	Filter size HxWxD (mm)	Weight (kg)
CL-SW-3P3-P-xx-S-R-000-N-00-AAA0	367x 355x 374	200x 100	305x 305x	8,8
CL-SW-3P6-P-xx-S-R-000-N-LS-AAA0	660x 367x 374	350x 100	305x 610x	12,9
CL-SW-3P6-P-xx-S-R-000-N-SS-AAA0	660x 367x 474	200x 200	305x 610x	14,8
CL-SW-4P4-P-xx-S-R-000-N-00-AAA0	519x 507x 424	350x 150	508x 508x	14,0
CL-SW-5P5-P-xx-S-R-000-N-00-AAA0	570x 558x 424	400x 150	508x 508x	15,7
CL-SW-6P6-P-xx-S-R-000-N-00-AAA0	672x 660x 424	500x 150	610x 610x	19,1
CL-SW-9P6-P-xx-S-R-000-N-LS-AAA0	965x 672x 474	600x 200	610x 915x	26,4
CL-SW-9P9-P-xx-S-R-000-N-00-AAA0	977x 965x 474	500x 200	915x 915x	33,9
CL-SW-11P5-P-xx-S-R-000-N-SS-AAA0	1158x 570x 474	400x 200	508x 1108x	27,8
CL-SW-11P5-P-xx-S-R-000-N-LS-AAA0	1158x 570x 424	800x 150	508x 1108x	26,0
CL-SW-12P6-P-xx-S-R-000-N-SS-AAA0	1270x 672x 474	500x 200	610x 1220x	32,5
CL-SW-12P6-P-xx-S-R-000-N-LS-AAA0	1270x 672x 424	800x 150	610x 1220x	30,2

The item types in the table are PU versions (for filters with PU gasket). Other sizes and variants on request.
For ordering: To select filter frame hight replace "xx" with "MD" for Megalam MD, "MX" for Megalam MX and "MG" for Megalam MG
SW= Standard version steel white RAL 9010 (Optional S4=Stainless steel SS 304, S6= SS 316L)
P= PU version & G= GEL version

CleanSeal product overview

Available diffusers

Perforated (PF)

Swirl (SW)

Four way (4W)

Adjustable (AV)

Nozzle (NZ)

Available configurations

Top entry

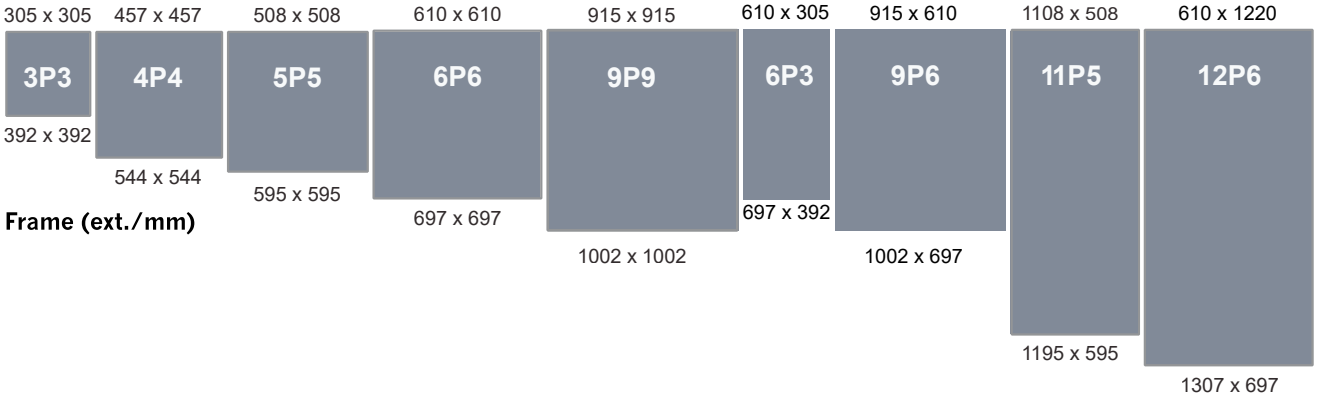
Rectangular side entry

Side entry with damper

Side entry

Standardized dimensions

Filter (ext./mm)



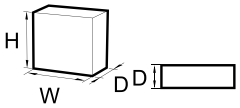
Frame (ext./mm)

Available for all gasket types

CleanSeal is available for Camfil filters with DIN, PU or Gel gaskets.

CamHosp 2

NOUVELLE NORME
NF S90 - 351:2003

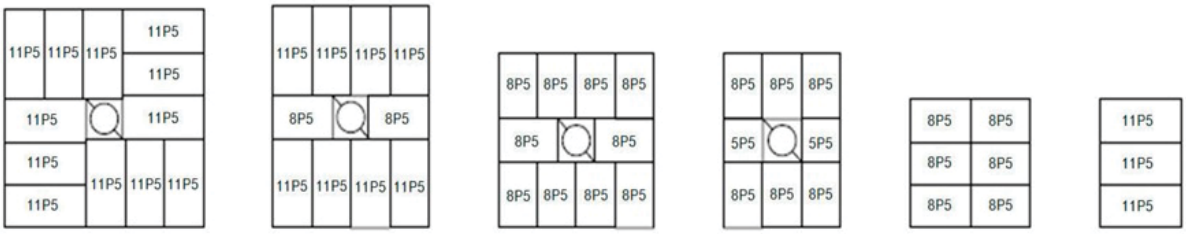


Advantages

- New modular design
- More secure assembly
- Tightness in terms of immediate and lasting joint
- Conformity to the standard NFS-90 351 in areas at risk 3 and 4

Application: Modular filtration ceiling with a unidirectional flow for operating theaters design
Comment: Construction: Modular, with each module assembled and sealed in the factory and consisting of:
1 plenum part made of carbon steel
1 airtight,continuously welded platform with a thickness of 1.5mm
Assembly: The modules are simply bolted together on site. Airtight joints are created mechanically between the modules
Protection: Oven-baked, RAL 9010 epoxy with primer coating both inside and out
Test connector: 1 test connector accessible from the operating theater to measure the loss of pressure and to take Test Aerosol samples
Fitting the filters: From the operating theaters the filters can be quickly clamped in place with a compression limiter using captive, pre-positioned tabs.
Cassing airtight at 450 Pa: Class B of EN 1886:1998, Class L1 (M) of PR EN 1886:2003, Class C of PR EN 12237:2003
Joints airtight at 450Pa: Maximum local penetration < 10-4 (0.01%) in accordance with ISO EN14644-3
Finish: 2 types of finish:
Screentek : set of clip-on frame units with screens made of monofilament polyester fabric
Protek: set of clip on frame units with screens made of perforated steel sheet

Type	Ext.size WxHxD (mm)	Int.surface m²	Airflow (m³/h) at 0.25m/s	Airflow (m³/h) at 0.3m/s	Airflow (m³/h) at 0.45m/s	No.of module(s)
Type 1	1913x 1308x 431	1.6	1,760	2,110	3,160	1
Type 1.5	1913x 1909x 449	3.3	2,560	3,080	4,620	2
Type 2	1913x 2516x 449	4.4	3,060	3,670	5,510	2+2
Type 3	2519x 2516x 449	5.9	4,120	4,950	7,420	4+2
Type 3.5	2519x 3126x 449	7.3	5,360	6,430	9,650	4+2
Type 4	3124x 3124x 449	9.2	7,020	8,420	12,630	4



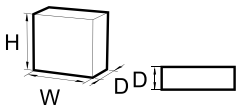
Type	5p5 filter size AxBxH (mm)	Quantity	8p5 filter size AxBxH (mm)	Quantity	11p5 filter size AxBxH (mm)	Quantity
1	560x 560x 66	0	560x860x66	0	560x1165x66	3
1.5	560x 560x 66	0	560x860x66	6	560x1165x66	0
2	560x 560x 66	2	560x860x66	6	560x1165x66	0
3	560x 560x 66	0	560x860x66	10	560x1165x66	0
3.5	560x 560x 66	0	560x860x66	2	560x1165x66	8
4	560x 560x 66	0	560x860x66	0	560x1165x66	12

CAMFFU EC

Advantages

- **Individual control**
- **EC Fan for high reserve capacity for pre and AMC Filtration**
- **Low power consumption**

Application: Flexible and economical solution to equip cleanroom from ISO 8 to ISO 5
Type: Self contained ceiling fan filter unit with high performance EC motor
Construction: Aluminum, SS430, Galvalume.
Fan: Efficient EC Motor
Airflow control: BUS controlled system or handheld control
Filter : Megalam H13, H14, U15 or U16. MD, MX or MG with dry PU gasket to be ordered separately.



Simple and reliable operation
High efficiency EC fans are selected for applications where energy consumption is the utmost importance. The unique built-in controller within the motor allows for each unit to be individually controlled and monitored remotely upon connection to an integrated control system.

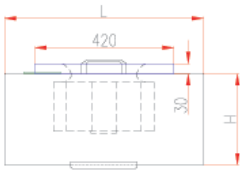
Camfil can also provide customized solutions to support existing system integration depending on the type of configuration required. The control system could either be a common operating system in the market such as eLisa, or Camfil's CamControl system. For more details regarding types of central control systems and control configurations available, please kindly contact Camfil technical specialist.

Technical Specification

Typical Grid Size	1200 x 1200	1200 x 600	600 x 600
*Size (L x W) (mm)	1175 x 1175	1175 x 575	575 x 575
Nominal Height without filter (H) (mm)	315 + 35	295 + 30	275 + 25
Nominal Weight without filter (kg)	30.0 - 36.5	16.0 - 26.0	11.0 - 15.0
Noise Level (dBA)	43 - 56	44 - 53	43 - 52
Power consumption (kW)	150 - 183	90 - 110	49 - 60
Housing Material	Aluminium / Stainless Steel / Galvalume		
Motor Type	EC		
Voltage Type	1 Ph, 220V, 50/60 Hz		

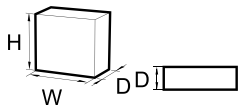
*Other dimensions are available on request.

PLAN VIEW



END VIEW

CAMFFU AC



Advantages

- **Individual control**
- **AC Fan maintenance free**
- **Low power consumption**

Application: Flexible and economical solution to equip cleanroom from ISO 8 to ISO 5
Type: Self contained ceiling fan filter unit with AC motor
Construction: Aluminum, SS430, Galvalume.
Fan: Efficient AC Motor
Airflow control: 5 speed manual control
Filter : Megalam H13, H14, U15 or U16. MD, MX or MG with dry PU gasket to be ordered separately.

Simple and reliable operation
AC fans are provided for customers looking for simple and cost effective solutions. The speed of the highly stable and reliable fans are manually controlled using a five speed or variable speed manual controller.

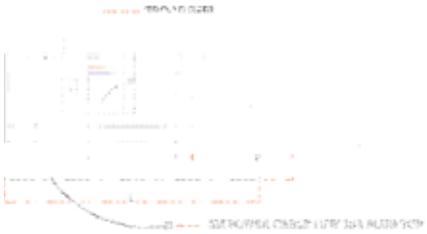
Camfil can also provide customized solutions to support existing system integration depending on the type of configuration required. The control system could either be a common operating system in the market such as eLisa, or Camfil's CamControl system.

For more details regarding types of central control systems and control configurations available, please kindly contact Camfil technical specialist.

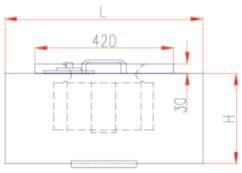
Technical Specification

Typical Grid Size	1200 x 1200	1200 x 600	600 x 600
*Size (L x W) (mm)	1175 x 1175	1175 x 575	575 x 575
Nominal Height without filter (H) (mm)	315 + 35	295 + 30	275 + 25
Nominal Weight without filter (kg)	31.0 - 37.5	15.5 - 25.5	10.5 - 14.5
Noise Level (dBA)	49 - 60	42 - 52	48 - 59
Power consumption (kW)	305 - 375	146 - 180	105 - 126
Housing Material	Aluminium / Stainless Steel / Galvalume		
Motor Type	AC		
Voltage Type	1 Ph, 220V, 50/60 Hz		

*Other dimensions are available on request.

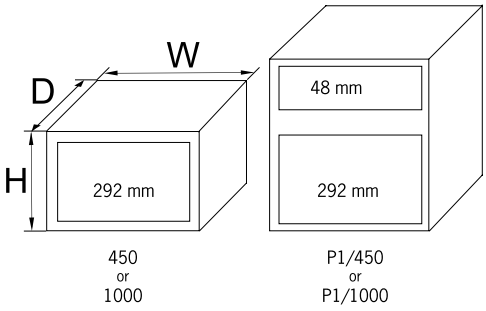


PLAN VIEW



END VIEW

CamSafe 3 -Housing



Advantages

- Modularity and Flexibility
- High security guarantee: class 3 IS010648-2 at +/- 6000Pa
- Fully welded
- Filter clamping “Twice the Security” (patented)
- High operator protection by BIBO

Application: Exhaust of contaminated air (particles, microorganisms, molecules), filter changing in secure plastic bag: Pharmaceutical, Biotechnology, Chemistry, Hospitals, Laboratories biosafety, animal facilities.
Type: Housing
Comment: Type: Modular system BIBO safe change housing to be assembled, fully welded.

Construction: 2mm steel airtight welded.

Finish: White painted baked RAL 9010.

Filter frame: Bended and continuous welded.

For filters: 292mm depth particle and carbon filter, 45mm depth prefilter.

Filters mounting : Fast filter clamping by ClampSafe, equipped with a “twice security” both on clamping frame and door: impossible to clamp the filter if not correctly positioned and impossible to close the door if the filter is not clamped.

Connection: Rectangular flanges pre-drilled.

Pressure ports: Locations provided upstream and downstream (pressure port kit to be ordered separately).

Performance: Housing qualified +/- 5000Pa: Class 3 acc. to ISO 10648-2, L1 acc. to EN1886, Class D acc. to EN12237, Class C acc. to Eurovent 2/ 2.

Accessories: Safe change bag with integrated a-ring sealable, Gaskets and bolting kit Connecting ducks 1-6 housing in parallel for high flow rates.

Option: Stainless steel, factory mounting full or partial, individual factory tests with test report.

Art. No.	Type	Dimensions WxHxD (mm)	Filter size HxWxD (mm)	Weight (kg)
4500004C	CS3-610-F-SS	730x 535x 725	610x 610x 292	45
4500006C	CS3-305-F-SS	730x 535x 420	610x 305x 292	39
4500000C	CS3-610-F-PPC	730x 535x 725	610x 610x 292	45
4500002C	CS3-305-F-PPC	730x 535x 420	610x 305x 292	39

CleanSeal Extract Exhaust/Return Air Housing

Advantages

- Tool-less filter clamping 100% secured and immediate
- Quick grid locking for immediate access to filter
- Long lasting reliability and tightness : robust fully welded construction
- High corrosion protection againts decontamination agents
- Ensure localized control of potent compounds, eliminating the contamination of downstream ductworks
- Easily operation with scanning system for filter integrity test

Application: CleanSeal Extract is wall mount equipment used for exhaust/return air system: Pharmaceutical, Biotechnology, Chemistry, Hospitals, and animal facilities.
Type: Housing
Comment: Type: Fully welded Wall mount housing.

Construction: Carbon steel, fully welded seams, accessories in Stainless Steel

Finish: 3 Steps - white epoxy coated RAL 9010, qualified for high corrosion protection against decontamination agents

Filter Seal: Endless PU gasket on filter.

Connection: Rectangular pre-drilled flanges.

Pressure Gauge: Pressure gauge is pre-installed on the equipment.

Performance: The whole equipment could bear ±1000Pa.The overall leakage rate should no more than 0.25% per hour under 1000Pa pressure.

Scanning system: Accourding to standard IS014644-3.

Art. No.	Type	Dimensions WxHxD (mm)	Filter size HxWxD (mm)	Unit volume (m³)	Weight (kg)
WM10000C	CLE-SW-6P6-P-MD-SR6008-N-LS-AOOO	800x 998x 526	HEPA:610x 610x 66	0.6	55
WM10001C	CLE-SW-6P6-P-MX-SR6008-N-LS-AOOO	800x 998x 526	HEPA:610x 610x 90	0.6	55
WM10002C	CLE-SW-6P6-P-MG-SR6008-N-LS-AOOO	800x 998x 526	HEPA:610x 610x 110	0.6	55
WM10003C	CLE-SW-6P6-P-48MD-SR6008-N-LS-AOOO	800x 998x 526	Pre-filter 610x 610x48 HEPA : 610x610x66	0.6	55
WM10004C	CLE-SW-6P6-P-NF-SR6008-N-LS-AOOO	800x 998x 526	No Filter	0.6	55

**Other model please contact Camfil Kunshan factory.*

One-Stage Filter HEPA-Megalam

Art. No.	Type	Dimensions WxHxD (mm)	Area (m²)	EN 779	Unit Volume (m³)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
15042392C	Megalam MDA-610x610-01/22	610x 610x 66	9.7	H14	0.02	1000/250	4
15056166C	Megalam MXA-610x610-01/22	610x 610x 90	13.2	H14	0.03	1500/250	5.6
15066022C	Megalam MGA-610x610-01/22	610x 610x 110	17.5	H14	0.04	1800/250	5.3

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CamContain CS

Advantages

- Stainless steel housing conforms to tightness-class as required by nuclear power stations
- Integrated filter scanning technology
- Especially secure filter clamping technology
- Innovative filter insertion device
- Safe decontamination concept

Application: Hospital isolation rooms/wards and Intensive Care Units (ICUs) for the control of airborne pathogens, viral contaminants and infectious organisms
Comment: Construction: Matched components can include bag-in/bag-out section, prefilter section, testing section and an optimized fan section
Filters: HEPA filters and various grades of prefilters
Additional data: Consult Camfil office for additional information

Safety cannot be stressed enough.
Especially when it involves highly sensitive applications in which people, animals or the environment are endangered by highly infectious microorganisms, for example. High safety demands apply to all situations in which toxic, radioactive or bacterial substances must be isolated, such as in the pharmaceutical industry, with the use of biotechnical equipment as well as in BSL-3/BSL-4 laboratories and nuclear power engineering.
The filter housings have been designed to meet the highest safety demands.

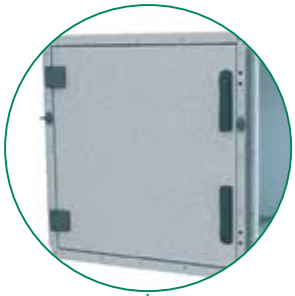
To ensure a complete documentation of your air filtration, most notably in highly sensitive areas, the CamContain CS housing can be supplied with an integrated scanner. The HEPA filter can be tested on-site for separation efficiency and any leaks, and the results professionally documented. For applications in which dangerous microorganisms must be filtered out (BSL-3/BSL-4), the housing can be equipped with connections and devices for safe decontamination. What is more, the maintenance bag replacement technology guarantees additional safety for the operator. The CamContain CS housings made of stainless steel are gas-tight welded, torsion-resistant and compliant with the highest tightness requirements, which are also commonly used in nuclear power plant engineering.

The CamScan Mobile is a mobile analysis unit for the automatic testing of an installed filter. As defined in the standard DIN 1822, the built-in filter can be tested for overall separation efficiency and any possible leaks. The computer that is integrated into the system stores the measurement values, which in turn allows for trouble-free documentation.

CamCube filter housings

Flexible, compact and with multiple stage filtration options

HINGED SERVICE HATCH
with foldable handles



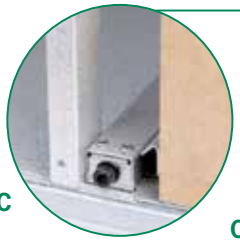
ROBUST CONSTRUCTION
Leakage class C, EN15727
Mechanical performance:
D1, EN1886:2007

HEAT AND CONDENSATION INSULATED
45 mm insulation in a sandwich design

ALUZINC
Corrosion class C4

OPTIONAL PREFILTER MOUNTING RAIL

ADJUSTABLE FEET
Available for floor mounting

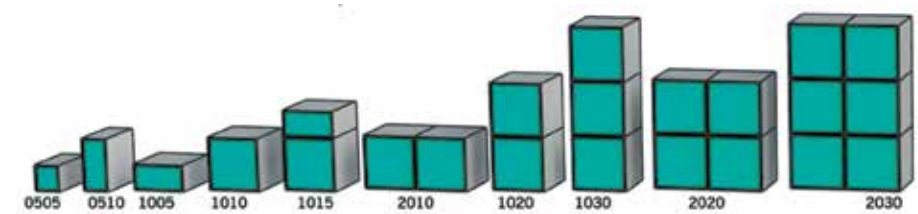


CLAMPING DESIGN AC

CLAMPING DESIGN HF

- CamCube HF: For filters with header frame 25 mm, like Hi-Flo, Opakfil, CityCarb and CitySorb.
- CamCube AS: is a housing with integrated scanning system for HEPA filters size 610x610x292 mm
- CamCube AD: for HEPA filter size 610x610x292 mm
- CamCube AC: for HEPA filters size 595x595x292 mm
- CamCube CC: For CamCarb cylindrical molecular filters with max depth 450 mm
- CamCube HF-CC: For CamCarb cylindrical molecular filters with max depth 600 mm

THE HOUSINGS CAN BE ORDERED IN A VARIETY OF DIFFERENT SIZES



Size samples

CamCube HF-L

Advantages

- For bag filters and compact filters (header frame)
- Build-in thermal insulation
- Corrosivity class C4 for Aluzinc housing material
- Leakage class C acc. EN 15727
- Easy maintenance
- Optional rail for prefilter panels

Application: CamCube HF is a flexible and compact range of filter housings for bag filters and other filter types with a 25 mm frame. Used in comfort and industrial applications
Max Temperature (°C): 70°C
Comment: Filter housing material: Aluzinc
Option: Stainless steel SS EN 1.4301
Filter: Bag filters such as Hi-Flo XL and City-Flo XL. Compact filters such as Opakfil. See the relevant page in the catalogue for the technical data about filters
Air flow: The recommended air flow in a full module filter (592 x 592 mm) is 3,400 m3/h. See the relevant page in the catalogue for further information
Note: Door hinged on the left or right, can be changed on site
Included as standard: Adjustable feet, mounted pressure points, in- and outlet gasket for guidance connection
Accessories: Lockable handles

CamCube HF is a flexible and compact range of filter housings for bag filters and other filter types with a 25 mm frame. Two stage filtration is available as an option with a prefilter mounting rail for panel filters. The housing walls is a sandwich design with 45 mm heat and condensation insulation between, covered with aluzink sheet metal inside and outside (corrosivity class C4).
The service hatch is hinged mounted. The endless gasket on the inside of the service hatch makes it highly airtight.
The filter housing has a leakage class of C according to EN 15727.
When the service hatch is closed the newly developed clamping device ensures the clamping of the filter.
As standard the casing has M8 threads for mounting the filter housing. The filter housing is supplied with a guide connection and a flange connection is available as an option.

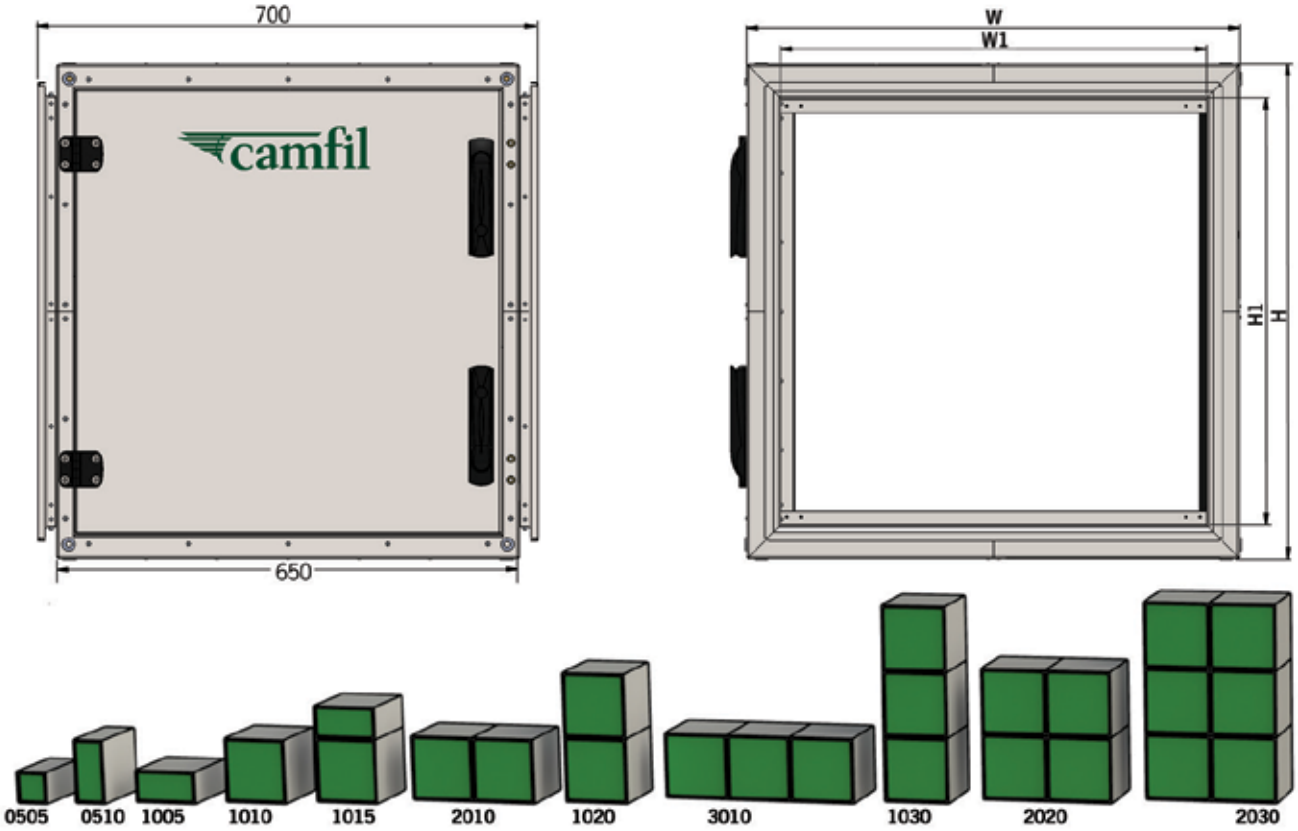
Accessories:
Prefilter mounting rail 50 or 100 mm
Locking handles
Flange adaptor

Example specification text:
Filter housing: CamCube HF-1010. Supplier, Camfil Svenska AB
Design: Sandwich construction with 45 mm heat and condensation insulation,
covered with double aluzinc sheet metal (corrosivity class C4)
Leakage class C
Filter: 1 x Cityflo XL-592x592x640 F7
Accessories: One set of adjustable feet. Hose connectors for pressure drop, factory mounted

Classification:
Leakage class C, according to the EN 15727:2010 standard. Leakage class L1 according to the EN 1886:2007 standard
Mechanical perfomance: D1 according to the EN 1886:2007 standard
Filterbypass test, highest class according to the EN 1886:2007 standard, up to filter class F9

Art. No.	Type	Dimensions WxHxD (mm)	Inner flanges W1xH1 (mm)	Weight (kg)
550001	CamCube HF-L 0505	392x 392x 700	300x 300	24
550002	CamCube HF-L 0510	392x 692x 700	300x 600	34
550003	CamCube HF-L 1005	692x 392x 700	600x 300	34
550004	CamCube HF-L 1010	692x 692x 700	600x 600	43
550005	CamCube HF-L 1015	692x 992x 700	600x 900	55
550007	CamCube HF-L 1025	692x 1592x 700	600x 1500	76
550006	CamCube HF-L 1020	692x 1292x 700	600x 1200	64
550008	CamCube HF-L 1030	692x 1892x 700	600x 1800	85
550009	CamCube HF-L 1510	992x 692x 700	900x 600	53
550010	CamCube HF-L 1515	992x 992x 700	900x 900	66
550011	CamCube HF-L 1520	992x 1292x 700	900x 1200	76
550012	CamCube HF-L 1525	992x 1592x 700	900x 1500	89
550013	CamCube HF-L 1530	992x 1892x 700	900x 1800	99
550014	CamCube HF-L 2010	1292x 692x 700	1200x 600	62
550015	CamCube HF-L 2015	1292x 992x 700	1200x 900	77

Art. No.	Type	Dimensions WxHxD (mm)	Inner flanges W1xH1 (mm)	Weight (kg)
550016	CamCube HF-L 2020	1292x 1292x 700	1200x 1200	86
550017	CamCube HF-L 2025	1292x 1592x 700	1200x 1500	100
550018	CamCube HF-L 2030	1292x 1892x 700	1200x 1800	109
550019	CamCube HF-L 2510	1592x 692x 700	1500x 600	74
550020	CamCube HF-L 2515	1592x 992x 700	1500x 900	89
550021	CamCube HF-L 2520	1592x 1292x 700	1500x 1200	98
550022	CamCube HF-L 2525	1592x 1592x 700	1500x 1500	113
550023	CamCube HF-L 2530	1592x 1892x 700	1500x 1800	123
550024	CamCube HF-L 3010	1892x 692x 700	1800x 600	83
550025	CamCube HF-L 3015	1892x 992x 700	1800x 900	99
550026	CamCube HF-L 3020	1892x 1292x 700	1800x 1200	108
550027	CamCube HF-L 3025	1892x 1592x 700	1800x 1500	124
550028	CamCube HF-L 3030	1892x 1892x 700	1800x 1800	134



CamCube AS

Advantages

- For Compact filters (box type) full size 610x610x292mm
- Unique non-intrusive patented scanning system
- Space saving installation
- Advanced patended probe for reliable scanning
- Built-in inspection lens and light
- Leak-free guarantee
- Built-in thermal insulation

Application: Filter housing with integrated scanning system
Max Temperature (°C): 90°C
Comment: Filter: High airflow HEPA filter, in size 610x610x292 mm. See the relevant page in the catalogue for the technical data about filters
Filter clamping: Suitable for filters, in depth 292 mm. Tool for filter clamping hex key 5 mm
Note: The housing is reversible depending on airflow direction
Material: Aluzinc

MagiCAD

CamCube AS is a flexible and compact range of scannable filter housings for high airflow HEPA filters and other filter types with 292 mm depth. The cover is a sandwich design with 45 mm heat and condensation insulation between, covered with Aluzinc sheet metal inside and outside (corrosivity class C4). The groove around and between the filters is sealed with sealant to exclude any leakage from the joints.
The service hatch is hinged mounted. The endless gasket on the inside of the service hatch ensures high tightness.
The filter housing has leakage class D according to EN 15727.
When the service hatch is closed the clamping device ensures the clamping of the filter.
The filter housing is supplied with flange connection and hose connectors for pressure drop measurement.

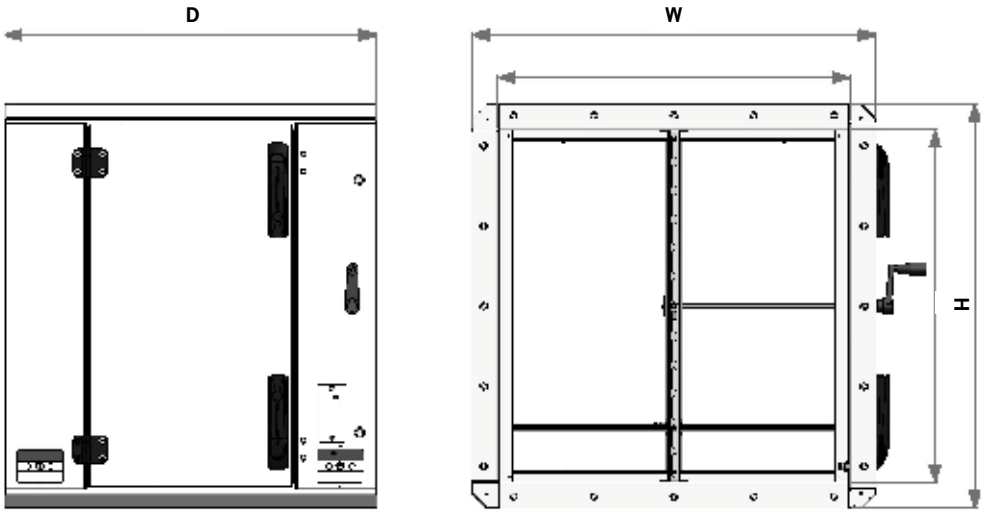
Accessories:
Replacement kit for scanning system
Lockable handles

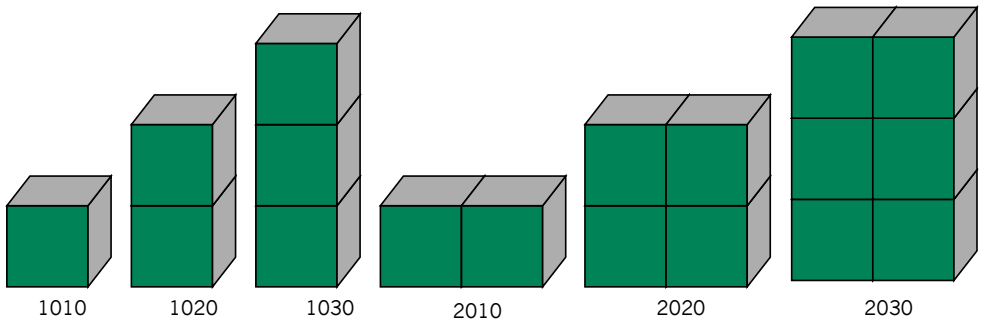
Scanning:
Using the integrated crank, with foldable handle, the scanning probe can be moved up and down. The scanning process is non-intrusive, easy, reliable and secure and installation footprint is minimized.
The built-in wide angel inspection lens and light makes it easy to look inside the housing.
The scanning system is easy to replace if needed.

Example specification text:
Filterhousing: Camfil CamCube AS-1010.
Design: Sandwich construction with 45 mm heat and condensation insulation,
covered with double aluzinc sheet metal (corrosivity class C4).
Including hinged airtight hatch for fast access.
Filter: Absolute DG 610x610x292 mm.
Integrity test for validation operation : Built-in, non intrusive scanning system for HEPA filter integrity test, including 100% concentration measurement ports.
Clamping system: Designed not to disturb integrity test operations.
Inspection: Built-in inspection lens and light to survey while performing scanning.

Classification:
Leakage class D according to EN 15727:2010 standard.
Leakage class L1 according to EN 1886:2007 standard.
Mechanical: D1 according to EN 1886:2007 standard.
Max penetration gasket frame (filter section) < 0,01% by ISO 14644-3.
Fulfills the regulatory demands on HEPA-filter integrity test according to ISO 14644-3.

Art. No.	Type	Dimensions WxHxD (mm)	Duct connection (mm)	Weight (kg)
553004	CamCube AS-1010	707x 707x 650	615x 615	43
553006	CamCube AS-1020	707x 1322x 650	615x 1230	64
553008	CamCube AS-1030	707x 1937x 650	615x 1845	85
553014	CamCube AS-2010	1322x 707x 650	1230x 615	62
553016	CamCube AS-2020	1322x 1322x 650	1230x 1230	86
553018	CamCube AS-2030	1322x 1937x 650	1230x 1845	109





1. Advanced patended probe **2.** Optical wide angle inspection lamp **3.** Crank with foldable handle

Absolute Filter Holding Frame

Advantages

- Modular design adaptable for all types of installations
- Location dimples in frame ensure correct filter fitting
- Pre drilled for easy assembly
- Filter holding clips can be easily replaced as required

Application: Mounting very high efficiency filters in air conditioning units and systems
Frame: Stainless steel, Galvanised steel
Comment: Filter types: HEPA filters like Absolute or other compact filters (box type)
Filter fixing: Using 4 corner mounted clamps

Art. No.	Type	Dimensions WxHxD (mm)	Filter size HxWxD (mm)	Weight (kg)
5107.06.01	Galvanised steel	626x 626x 335	610x 610x 292	12,5
5107.24.01	Galvanised steel	626x 321x 335	305x 610x 292	10
5107.50.01	Galvanised steel	610x 305x 335	290x 595x 292	9,9
5107.60.01	Galvanised steel	610x 610x 335	595x 595x 292	12,3
5107.50.02	Stainless steel	610x 305x 335	290x 595x 292	9,9
5107.60.02	Stainless steel	610x 610x 335	595x 595x 292	12,3
5107.24.02	Stainless steel	626x 321x 335	305x 610x 292	10
5107.06.02	Stainless steel	626x 626x 335	610x 610x 292	12,5

Other dimensions and arrangements available on request

Universal filter holding frame

Advantages

- Rapid installation of the frame
- Holds a variety of bag filters and compact filters (with header frame)

Application: Suitable for commercial and industrial applications
Frame: Stainless steel, Galvanised steel
Comment: Gasket: Optional endless polyurethane gasket
Remarks: Filter fixing using 4 clamps (included)
Mounting frame for Hi-Flo, Opakfil and other bag- and compact (hf) filters
Stainless Steel

Frame

Art. No.	Type	Dimensions WxHxD (mm)	Clips included	Weight (kg)
4300001	Frame 4SPXM	608x 608x 76	Yes	3
4300003	Frame 4URZO	303x 608x 76	Yes	2.2
430F-4300104	Type 8 Holding Frame 24x12"	303x 608x 68	No	2.2
430F-4300101	Type 8 Holding Frame 24x24"	608x 608x 68	No	3
Clamping height 25 or 50 mm				

Clips

Art. No.	Type	Model
6999-10001	Clip	C70
6999-10002	Clip	C78-3
6999-10003	Clip	C78-4
6999-10004	Clip	C78-5

Recommended clips for Type 8 frame

Prefilter.	Secondary filter	Recommended clip	Number of clips required
1*	None	C70	4
2*	None	C70	4
4*	None	C78-4	4
None	With 25 or 20mm header	C70	4
1*	With 25 or 20mm header	C70	4
2*	With 25 or 20mm header	C78-3	4
4*	With 25 or 20mm header	C78-5	4
Clamping height 25 or 50 mm			

C- 78 SERIES

C-70

FastFrame

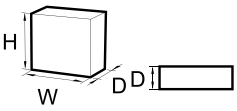
Advantages

- No clamp manipulation optimizes filter change out times
- Rapid installation of the frame
- Modular concept for all installations
- Holds a variety of bag filters, compact filters (with header frame) , prefilters or a combination thereof

Application: Mounting frame for Hi-Flo, Opakfil, EcoPleat and other bag- and compact filters
Frame: Galvanised steel
Comment: Option: Stainless steel
Gasket: Hygienic endless polyurethane
Filter Types: Pre-filters and header frame type filters.
Filter fixing: Using 4 corner mounted clips, to suit the installed filter.
Also available in stainless steel 304 and 430

Art. No.	Type	Dimensions WxHxD (mm)	Filter size HxWxD (mm)	Weight (kg)
4304004	FastFrame with PU gasket	610x 610x 91	592x 592x	3.5
4304003	FastFrame with PU gasket	508x 508x 91	490x 490x	3
4304002	FastFrame with PU gasket	610x 508x 91	490x 592x	3.3
4304001	FastFrame with PU gasket	610x 305x 91	287x 592x	2.8
4304008	FastFrame without PU gasket	610x 610x 91	592x 592x	3.5
4304007	FastFrame without PU gasket	508x 508x 91	490x 490x	3
4304006	FastFrame without PU gasket	610x 508x 91	490x 592x	3.3
4304005	FastFrame without PU gasket	610x 305x 91	287x 592x	2.8

CamVane 100



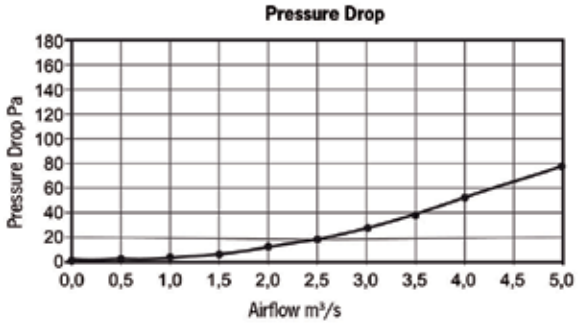
Advantages

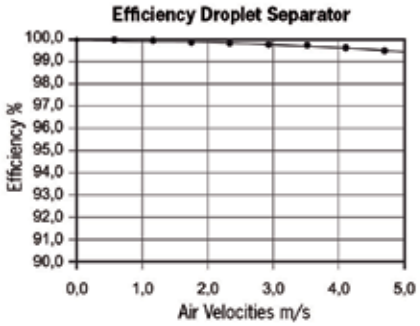
- Effective rain separator
- Specially designed profiles for high separation efficiency
- Designed for tough conditions
- Wide range of dimensions

Application: Turbomachinery Systems such as gas turbines, large industrial air compressors, diesel & gas engines, generators

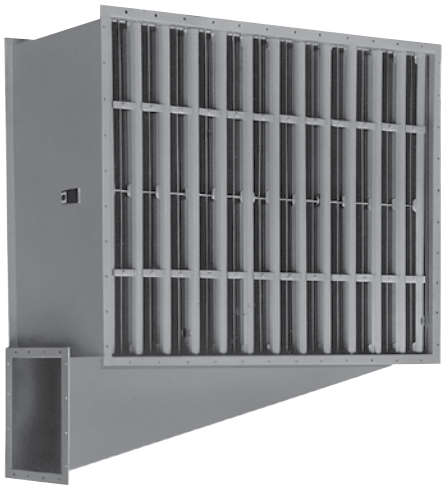
The air intake which is very efficient as rain protection can be used in all filter installations where water, rain, or fog conditions occur. Also suitable in marine environments and coastal areas.
Installation Options:
Mounting flange or fastening ears to customer specifications.
Comment: Product Features:
CamVane has specially designed aluminum profiles which ensures high separation efficiency
Frame material: Aluminum EN-AW-5754
Profiles material: Aluminum EN-AW-6060
Dimensions (WxH): From 250x250 mm to 2500 x 2500 mm, depth 100 mm
Air velocity: 1.0 - 5.0 m/s in the duct system.
When ordered in stainless version: Frame: Stainless AISI316L,
Profiles: Aluminum EN-AW-6060
Tested according to EN 13030:2001: Class A
Options: Mounting flange, drain type, painted

The CamVane 100 has specially designed profiles where the air is forced into turbulence. Because of inertia, the water droplets are caught up in the vertical profiles while the air stream continue in the inlet. With gravity, the collected water is directed to the bottom drainage system and removed.
One or more drains, depending on the size of the frame, are placed on the bottom. The frame is provided with drilled or undrilled flange on air entering or outlet side.





Dynavane

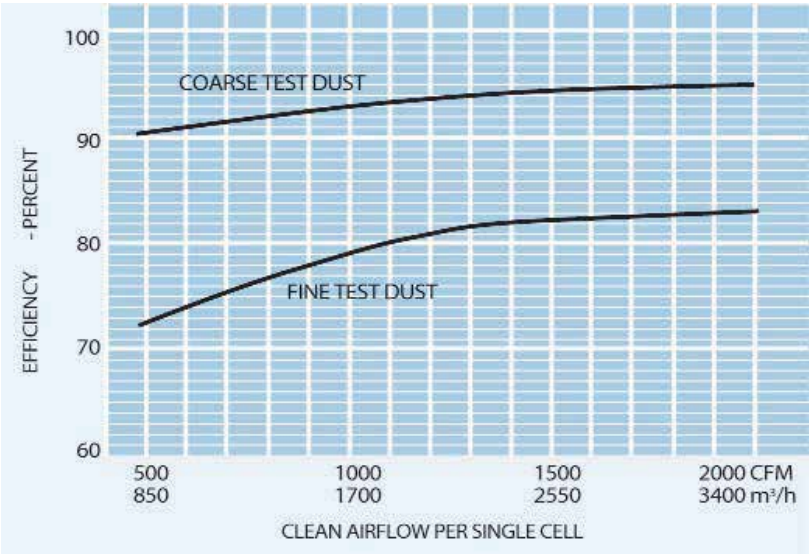


Advantages

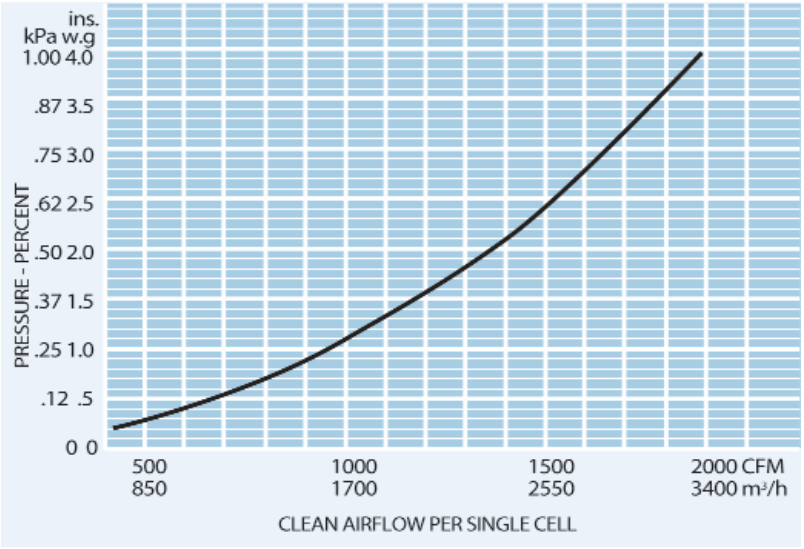
- Much higher efficiency as compared to sand trap louvres
- Much higher life for pre and bag filters resulting ROI approximately in a year
- Tested as per ISO 5011 and efficiency of 95% Coarse dust and 78% fine dust
- Constant pressure drop, self-cleaning
- Modular concept and can be designed to fit in available area based upon the designed airflow

Application: Self-cleaning inertial filter designed to handle large volume of air. Dynavane incorporates inertial separation providing high dust removal efficiency of airborne particulate matter.
Type: Metal Panel
Frame: Stainless steel, Metal
Installation Options: Construction: 11 gauge steel all welded construction, bolt on flange for HVAC system connection and bleed outlet,removable blade pack and four mesh inlet screens. Material of construction can be Mild Steel, SS304 & SS316
Comment: Face Air Velocity: 2.5 m/s – 4.5 m/s.

Efficiency



Airflow Resistance



Products

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City M Overview

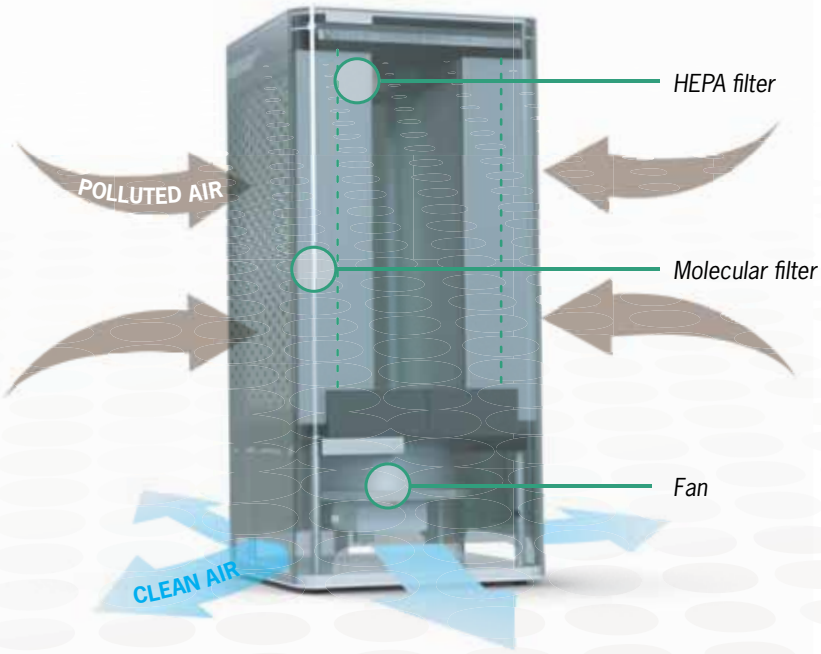
CLEAN AIR IN ALL DIRECTIONS

The polluted air passes through the pattern of holes on both sides and continues inside to be purified.

CITY air purifier is equipped with a highly efficient HEPA filter. It removes 99.995 % of all particles down to the MPPS (most penetrating particle size) according to EN1822 standard.

The molecular filter efficiently eliminates odours and gases.

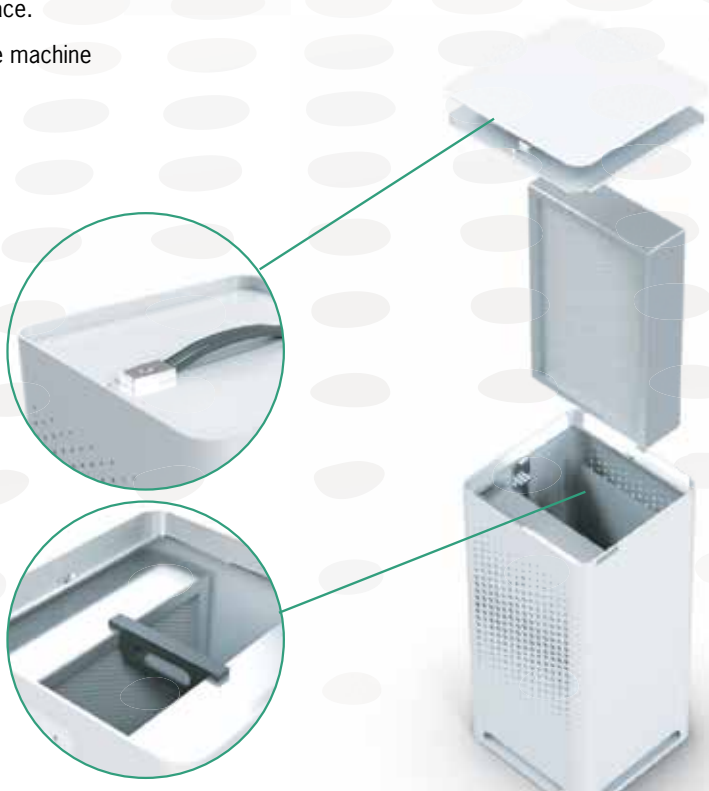
Clean air – free of particles and harmful pollutants, gases or odours – is dispersed in all directions, 360°.



QUICK AND SIMPLE FILTER CHANGES

To change the filters only takes a minute.

- Remove the top lid and the lid underneath.
- Take out the used filters and replace them with new ones.
- And put the lids back in place.
- Also, remember to turn the machine off during this procedure.



City M Overview

Technical information

EXTERNAL DIMENSIONS, VERTICAL MODEL

	City M
Height (mm)	720
Width (mm)	340
Depth (mm)	345
Weight (kg)	15.0 (including new filters)
Filter weight (kg)	2.0 kg (2 filters are needed)

FAN SPECIFICATIONS

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	3200
Power input	W	83
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	+60

AIR FLOW

	City M			
Step	**Qv [m^3/h]**	**N [rpm]**	**Pe [W]**	**LpA [dBA]**
1	37	520	4	15.5
2	67	728	5	15.5
3	94	907	6	15.5
4	127	1072	7	21.7
5	251	1772	19	37.7
6 Max.	433	2733	55	52.6

City M - front *City M - side* *City M - back*

City M

Advantages

- Individually certified H14 filters ensuring 99.995% filtration efficiency
- Ideal for larger rooms in offices and hospitals
- Removal of airborne particulates, viruses, and bacteria
- Protecting the health of your employees

Application: Air purifier for all types of indoor environments, for example hospitals, hotels, offices, homes, schools, public environments and where high quality air purification is required
Power supply: 200...240V
Comment: Filter: H14/Molecular (H13 is available as an option)
Installation: Floor
Design: White
Average Air purification area: 75m²

Art. No.	Type	Dimensions WxHxD (mm)	Weight (kg)
94000047	Air purifier CITY M (WHITE)	340x 720x 345	15
56160011 B	Replacement Main filter*		
56160027 B	Replacement Main filter*		
94020031	Replacement Pre filter**		
94000199	Air Image Sensor	144x 64x 61	0.2

Includes 2pcs H14/Molecular
***Includes 2pcs PPI mat*
94000047 - Transport Dimension (mm)/Weight (kg): 395x790x395 / 17

Operating Specification

Setting.	Air flow (m³/h)	Energy Consumption (W)	Noise Level (dBa)*	Max Filtration Efficiency (%)
1	37	4	16	>99.99
2	67	5	21	>99.99
3	94	6	28	>99.99
4	127	7	35	>99.99
5	251	19	45	>99.99
6	433	55	54	>99.99

**Tolerance +/- 10%*

Accessory

Air Image Sensor (94000199)

- **Monitors and tracks air quality**
- **Controls indoor air quality**
- **Energy savings through smart connectivity**
- **World map IAQ levels**

City Touch

Advantages

- Healthier Indoor Environment
- Reduce Environmental Impact
- Less Asthma and Allergy Suffering
- Reduce PM1 and PM2.5
- Less Odour
- Low power consumption

Application: Air purifier for all types of indoor environments, for example hospitals, hotels, offices, homes, schools, public environments and where high quality air purification is required
Installation Options: Floor, Filter Replacement Reminder, Child Lock
Comment: Power Supply: AC 220V/50HZ
Filter: Pre Filter, Molecular Filter, EPA Filter
Particle Clean Air Delivery Rate (CADR): 500m3/h
Particle Cumulate Clean Mass (CCM): P4≥12,000mg
Cleaning Energy Efficiency: High efficiency class (GB 18801.2015)
Timer:2,4,8,10,12h
Effective room size:≤60m2
Sensor: Particle + VOC
Model: Quick,Sleep,Auto
Remote Control

Art. No.	Type	Dimensions WxHxD (mm)	Weight (kg)
94000152	City Touch (White)	340x 496x 388	8.2
	Pre Filter		
	EPA Filter		
	VOC Filter		

Filter included in standard version EPA 11 Filter+VOC Filter+Pre Filter
Available in selected market only

Operating Specification

Setting.	Air flow (m^3/h)	Energy Consumption (W)	Noise Level (dBa)*	Max Filtration Efficiency (%)
TURBO	500	40	66	99%@0.3μm, 99% @ PM1 and PM2.5

Exchange

Article Number	Type	Number of filters per air purifier	Specification
9119139	Pre Filter	2	Nylon
CITF003C	EPA Filter	2	Particle Filter
CITC02	VOC Filter	2	VOC Filter

CC 410 (Concealed)

Advantages

- Healthier employees
- Less cleaning
- Lower energy costs
- Reduced environmental impact
- Clean products, fewer operational disruptions
- Easy to adapt ducts and diffusors
- Less odour

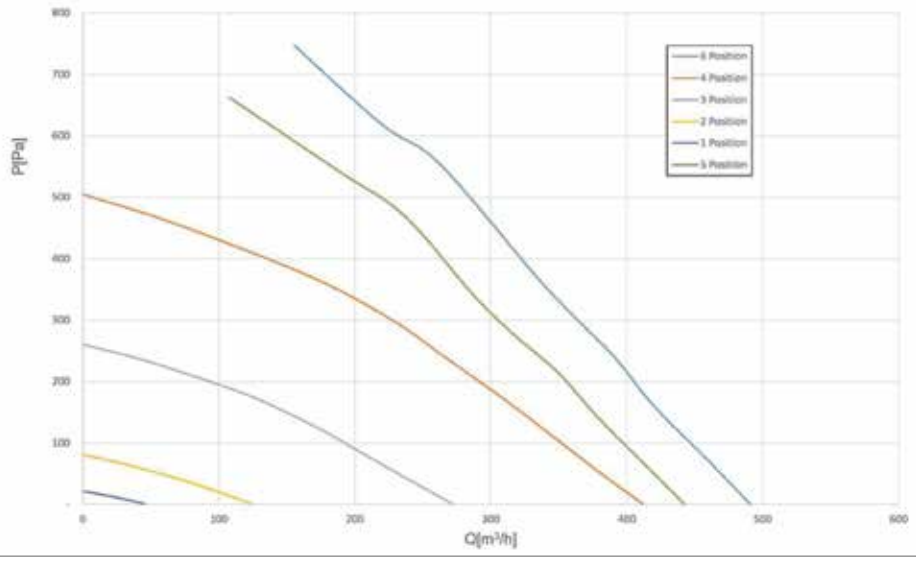
Application: Air purifier for rooms measuring up to 140 m², for example small or medium offices.
Power supply: 200...240V
Type: Air cleaner
Frame: Steel, painted
Installation Options: Wall or ceiling (built in)
Comment: Frequency: 50/60hz
Duct Connection: 2 pc Ø250mm
Capacity: 0~490 m³/h, Air Flow controlled by potentiometer with cable (5m)
Air Image: Optional
Design: Powder coated sheet steel (White)
Air purification area: MAX 140 m²

Art. No.	Type	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Power Consumption (W)	Weight (kg)
94000159	Air Cleaner 410 (Concealed) - M	1052x 300x 364	480/	165	31.5
94000160	Air Cleaner 410 (Concealed)	1052x 300x 364	490/	165	25
94000159A	Air Cleaner 410 (Concealed) - M	1052x 300x 364	480/	165	31.5
94000160A	Air Cleaner 410 (Concealed)	1052x 300x 364	490/	165	25

Filter included in standard version
94000159 - ISO ePM10 50%
** Molecular and HEPA filter not included*
94000160 - ISO ePM1 60% (bag filter)
**HEPA filter not included*
94000159A - ISO ePM10 50%
** Molecular and HEPA filter not included*
94000160A - ISO ePM1 60% (bag filter)
**HEPA filter not included*

Operating Specification

Setting.	Air Flow m³/h	Noise level dB	Power Consumption (W)	System efficiency based on H14)
1	45	23.0	2.5	>99 %
2	124	28.1	8.3	>99 %
3	271	44.7	37.9	>99 %
4	412	55.3	101	>99 %
5	442	58.9	155	>99 %
6	490	63.3	165	>99 %



CC 1000

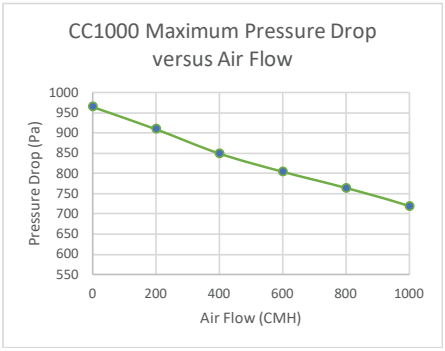
Advantages

- Healthier employees
- Less asthma and allergy suffering
- Eliminates tobacco smoke, odour PM1, PM2.5 and ultrafine particles
- Reduced environmental impact
- Lower power consumption

Application: Air cleaner to provide clean air for all kinds of indoor environments e.g. office, healthcare, pharmaceutical, food and beverage, schools, gym, bakeries, processing industry, supermarkets, etc. Specialized for the elimination of VOCs, H2O2, ozone, smoke, bacteria and ultrafine particulate matters.
Power supply: 200...240V
Installation Options: Mobile, stationary, wall-mounted, ceiling-mounted, or ducted.
Comment: Filter: 3 stages filter (Pre filter, Molecular & HEPA 13)
Capacity: Max 1000 m3/h
Energy consumption: 420W max
Average air purification area: up to 200m²
Air Quality Monitor: PM sensor (built-in) or Air image
Castor Wheel: Non-marking PU Castor (suitable for hospital and cleanroom)
System Control: Air Flow Sensor, Pressure Sensor, 24x7 on/off Timer

Art. No.	Type	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Power Consumption (W)	Area (m²)	Weight (kg)
94000181	CC 1000	630x 1282x 505	max 1000/	420	up to 200	88

HMI Touch Screen



High Performance Fan Motor

All around Acoustic Insulation

Secure and Easy Filter Change using Active Clamp System (ACS)

CC 1700

Advantages

- High efficient HEPA and molecular filtration options
- Easy to service
- Touch Screen control
- Pressure drop alarm
- Silent performance
- On/Off timer
- Constant Air flow features

Application: Versatile Air Cleaner specialized for elimination of acids, corrosive gases, VOC's, ozone, formaldehyde and particulate matter. Inside, you will find the well-known CamCarb, City or Gigapleat molecular products and EN, ASHRAE or ISO certified Particle filters. Due to Camfil's in house HEPA / Molecular filter expertise, we provide several unique customer benefits, such as low pressure drop and energy consumption, unique media combinations and optimized product lifetime. This air cleaner is engineered for multiple segment customization and often used in the following areas: Control rooms of petrochemical facilities, metal refining and pulp & paper mills; data centres & switch rooms, IVF Clinique's, health care facilities, indoor air quality excellence in polluted cities, cleanroom upgrades or complement to existing cleanrooms. Taking into account filter replacement, service cost, downtime and electrical power requirements, this product provides a minimum LCC value
Power supply: 200...240V
Comment: Filter: Up to 4 stage filter option
Capacity: Max 1700 m3/h

Art. No.	Type	Dimensions WxHxD (mm)	Airflow (m³/h)	Power Consumption (W)	Area (m²)	Weight (kg)
94000085	CC 1700	1000x 2100x 550	1700	249	150-300	310*

**Weight including filter*

CC 1700 Overview

Versatile air cleaner specially engineered to provide clean indoor air. Especially suitable for these professional segments: Corrosion control, healthcare, comfort, life science, food & beverage.

Air Cleaner CC 1700
Art. number: **94000085**

Upgrades/Accessories/Exchange

OIL & GAS, METAL, PULP AND PAPER (CC 1700) FOR CORROSION CONTROL

- Art. no. 94020065 - Inlet, filter class G4, target containment: PM10, 1 pc per unit
- Art. no. 94020068 - CC CG MS, target containment: Acids, H2S, SO2, 15 pcs per unit
- Art. no. 94020074 - CC CG MCI, target containment: Inorganic & organic acids, ozone, 15 pcs per unit
- Art. no. 94020067 - Outlet, filter class E11, target containment: PM2.5, PM1, nanoparticles, 1 pc per unit

DATA CENTERS (CC 1700)

- Art. no. 94020066 - Inlet, filter class F7, target containment: PM10, PM2.5, PM1, 1 pc per unit
- Art. no. 94020063 - GigaPleat NXPC MA, target containment: Acids, H2S, SO2, ozone, 1 pc per unit
- Art. no. 94020067 - Outlet, filter class E11, target containment: PM1, nanoparticles, 1 pc per unit
- Art. no. 94020064 - Outlet, filter class H13, target containment: PM1, nanoparticles, 1 pc per unit (upgrade from E11)

COMFORT (CC 1700) FORMALDEHYDE

- Art. no. 94020066 - Inlet, filter class F7, target containment: PM10, PM2.5, PM1, 1 pc per unit
- Art. no. 94020075 - CC CG formaldehyde, target containment: Formaldehyde, aldehydes, 15 pcs per unit
- Art. no. 94020062 - CitySorb VOC, target containment: VOC, smells, 1 pc per unit
- Art. no. 94020021 - CC CG VOC, target containment: VOC, smells, 15 pcs per unit (upgrade from CitySorb)
- Art. no. 94020067 - Outlet, filter class E11, target containment: PM1, nanoparticles, 1 pc per unit
- Art. no. 94020061 - CityCarb, target containment: PM2.5, PM1, VOC, smells, 1 pc per unit

CC 2100

Advantages

- Healthier employees
- Less Cleaning
- Eliminates tobacco smoke,weld smoke,construction dust,asbestos and particles of all sizes down to ultrafine
- Reduced environmental impact
- Clean products,fewer operational disruptions
- Lower energy costs

Application: Air Cleaner for dusty environments and indoor premises such as offices, pharmaceutical facilities, food factories, hospitals and health care, paper mills, bouldering gym, timber facilities, bakeries, packaging production, printing facilities, stables, processing industry and supermarkets. Specialized for elimination of VOCs, Ozone, Formaldehyde and Particulate matter.
Type: Air cleaner
Installation Options: Mobile, stationary, on wall or floor
Comment: Filter: Up to 4 stages filter option
Capacity; max 2100 m3/h
Voltage Usage : 220-240V, 50/60Hz
Energy Consumption: 0.88 KW
Average Air Purification Area: up to 400 m2
Other Option: PM1 sensor, Air image compatibility

Art. No.	Type	Dimensions WxHxD (mm)	Airflow (m³/h)	Power Consumption (W)	Area (m²)	Weight (kg)
94000121	CC 2100	850x 1860x 550	max 2100	880	up to 400	280*

**Weight including filter*

CC 6000

Advantages

- Saving energy cost in large spaces.
- Dual Air Intake
- Adaptable filter configurations
- Designed for high airflow requirements
- Protecting your people, products and process

Application: Air purifier for dusty environments and large indoor premises such pharmaceutical facilities, food factories, heavy industry, paper mills, welding workshops, timber facilities, bakeries, packaging production, printing facilities, stables, processing industry, supermarket and other specialist applications such as upgrading of clean room environments and other classified assembly environments
Installation Options: Mobile or stationary, floor, wall or ceiling mounting (with wire or suspension arms)
Comment: Power supply: 3-phase 380-480V or 1-phase 230V
Filter: F7, E11-H13
Fan: EC fan with adjustable airflow and ModBus connection
Capacity: 0 - 6000 m³/h
Connection: 4 standard round (diameter 315mm) or 2 standard round (diameter 315mm) and 2 round (diameter 250mm) with sound reduction

Art. No.	Type	EN779	EN1822	Dimensions WxHxD (mm)	Sound level (dB)	Power Consumption (W)	Weight (kg)	Air Volume (m³/h)
94000001	CC 6000 230V, 1 phase Vertical	F7	E11	798x 1968x 820	0-67	887	130	6000
94000002	CC 6000 380-400V, 3 phase Vertical	F7	E11	798x 1968x 820	0-67	887	130	6000
94000003	CC 6000 230V, 1 phase Horizontal	F7	E11	1262x 1359x 829	0-67	887	130	6000
94000004	CC 6000 380-400V, 3 phase Horizontal	F7	E11	1262x 1359x 829	0-67	887	130	6000
Uses 4 Pre + 2 main filters								

CC 6000 Overview

Air Cleaner CC 6000 is engineered to help large logistic and manufacturing companies keep employees healthy, improve product quality and reduce dust.

Air Cleaner CC 6000 Vertical
Art. number: 94000001 / 94000002

Air Cleaner CC 6000 Horizontal
Art. number: 94000003 / 94000004

Air Cleaner CC 6000 Prosafe
Art. number: 94020005

Upgrades/Accessories/Exchange

UPGRADES

- Art. no. 94000005 - Silencer (only for vertical model), 1-2 pcs per unit
- Art. no. 94000006 - Eyelets for ceiling mounting (horizontal), 4 pcs per unit
- Art. no. 94000008 - Upgrade pre-filter to 97mm Ecopleat
- Art. no. 94000010 - Ext. frame for Bagfilter/Citycarb/City-Flo 592x592x max 370 (without filter)
- Art. no. 94000035 - Molecular box for 2x32 pcs CamCarb CG 1300 incl. 2 frames (without filter), 2 pcs per unit

ACCESSORIES

- Art. no. 94000007 - Constant airflow sensor, 1 pc per unit
- Art. no. 94000015 - UK Plug (1 phase), 1 pc per unit
- Art. no. 94000016 - UK Plug (3 phase)
- Art. no. 94000026 - Extension frame kit 97mm incl. 2 frames (without filter), 2 pcs per unit
- Art. no. 94000027 - Extension frame bag filter incl. 2 frames (without filter), 2 pcs per unit

EXCHANGE - PRE-FILTER

- Art. no. 94020013 - 3GPA-F7-610x610x48, filter class F7, 4 pcs per unit, standard
- Art. no. 94020016 - Bagfilter XLT F7 592x592x370, filter class F7, 4 pcs per unit
- Art. no. 94020015 - 3GPA-F7-610x610x96, filter class F7, 4 pcs per unit
- Art. no. 94020058 - Aluminium pre-filter with flange 588x1198x50, 2 pcs per unit

EXCHANGE - COMBINATIONS FILTER

- Art. no. 94020018 - CityCarb CIZP-7I 592x592x292, filter class F7, 4 pcs per unit
- Art. no. 94020017 - City-Flo HFZS-F7 592x592x380, filter class F7, 4 pcs per unit

Art. no. 94020013

CC 6000 Overview (continued)

Upgrades/Accessories/Exchange

EXCHANGE - HIGH EFFICIENCY

- Art. no. 94020039 - MGE13-1220x610x100, filter class H13, 2 pcs per unit

EXCHANGE - HIGH MOLECULAR

- Art. no. 94020047 - CamCarb CG 1300 VOC, 2x32 pcs per unit
- Art. no. 94020050 - CamCarb CG 1300 formaldehyde, 2x32 pcs per unit
- Art. no. 94020053 - CamCarb CG 1300 decontamination, 2x32 pcs per unit

EXCHANGE - PROSAFE FILTER

- Art. no. 94020011 - Prosafe pre-filter 610x610x48, filter class F7, 4 pcs per unit
- Art. no. 94020030 - Prosafe 610x1220x100, filter class H14, 2 pcs per unit

EXCHANGE - PROSAFE FILTER

- Art. no. 94000091 - Machine, Air Image sensor
- Art. no. 94000095 - Connectivity upgrade CC6000/CC6000 ProSafe

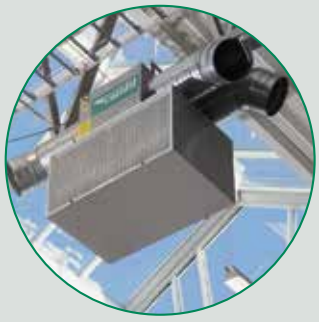
SILENCER (ONLY FOR VERTICAL MODEL), 1-2 PCS PER UNIT

AIR IMAGE SENSOR

CONNECTIVITY UPGRADE

EXT. FRAME FOR BAGFILTER/ CITYCARB/CITY-FLO 592X592X MAX 370 (WITHOUT FILTER)

UPGRADE PRE-FILTER TO 97MM ECOPLEAT



EYELETS FOR CEILING MOUNTING (HORIZONTAL), 4 PCS PER UNIT

MOLECULAR BOX FOR 2X32 PCS CAMCARB CG 1300 INCL. 2 FRAMES (WITHOUT FILTER), 2 PCS PER UNIT

Air flow (m^3/h)	Energy consumption (W)	W (m^3/h)	Noise level without silencer (dBA)	Noise level with silencer (dBA)	Working area (m^2)	System efficiency according to EN 1822
3000	150	0,05	52	50	750	>99 %
4000	312	0,08	56	53	1000	>99 %
5000	556	0,11	62	57	1250	>99 %
6000	887	0,15	67	64	1500	>99 %

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TurboBoost performance & The Value Rating for gas turbines

Boost power, uptime and profits

CamGT filters are engineered to excel in extreme environments where your turbomachinery are threatened by high humidity, salt-laden air and heavy pollution or particulates. They are optimized for EPA efficiency and hydrophobicity to virtually eliminate fouling, corrosion and maintenance downtime, all at a lower and stable pressure drop.

The CamGT line is the best-performing EPA filters on the market:

- Improved fuel efficiency
- Higher power output
- Reduced maintenance requirements
- Extended component life
- Increased reliability
- Reduced carbon emissions
- Safer operations

Learn more about the CamGT filters at www.camfil.com/TurboBoost and check out the new filter Value Rating Label to get a good correlation to the actual impact on your turbine, and compare!

The Value Rating for gas turbines

‘‘The easiest way to select filters for gas turbines’’

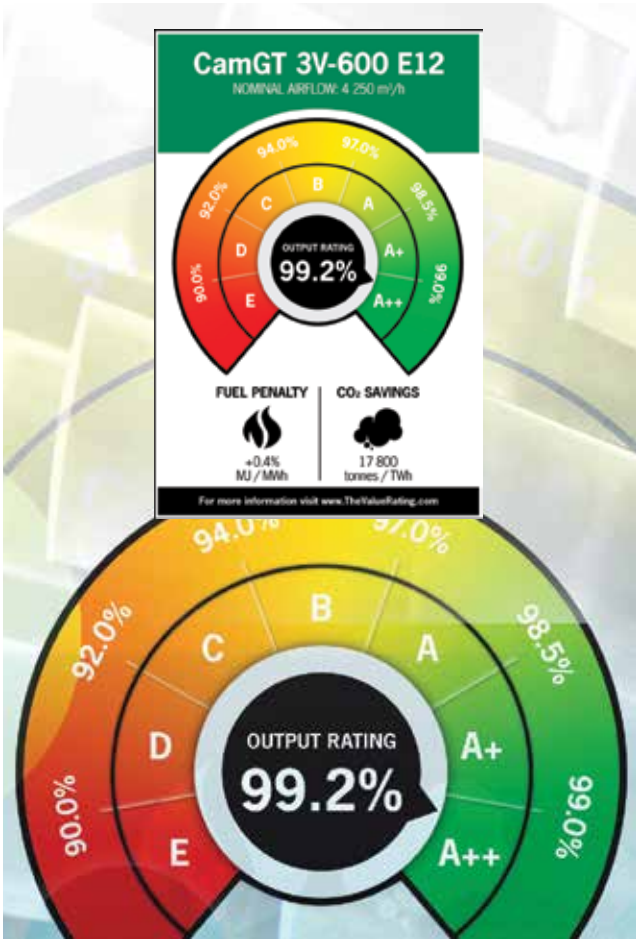
The filters you select to protect your gas turbines can have a huge impact on your operations. Low efficiency filters lead to fouling and higher pressure drop that rob your turbines of energy output and cause an increase in fuel consumption and CO_2 emissions. Powered by Camfil, The Value Rating helps gas turbine users easily evaluate the efficiency and quality of gas turbine final filters. Armed with this data, you can quickly compare the impact different filters will have on the performance of your turbines.

The OUTPUT RATING is a projection of the average yearly power output you can expect from your turbines as they will have degraded due to filter pressure drop, as well as fouling caused by particles getting past the filters.

The FUEL PENALTY value indicates how much more fuel you must use to compensate for degradation due to fouling and pressure drop.

The CO_2 SAVINGS index compares how many tonnes of CO_2 you could save per TWh of produced power against an M6 (ISO ePM10) 60% filter – a basic, industry-standard entry-level final filter.

Calculate your filter rating at www.TheValueRating.com.



PowerEye & BoostToReduce

PowerEye

‘‘Predictive analytics service for air intake filters and gas turbines’’

PowerEye is an advanced predictive analytics engine. It helps your company understand the impact that environmental conditions, changing weather patterns, and filter service status have on the health and performance of your gas turbines.

Filter management

Your maintenance teams will be able to monitor pressure drop trends and plan the timing of filter change-outs to coincide with scheduled outages. You save money on logistics and maintenance costs and – most importantly – avoid lost revenue from unplanned outages. And before you make any filter investment, PowerEye can provide hyper-accurate predictive models and life cycle costs analyses that show how different filter configurations and water wash schedules6 will impact your facilities’ performance and your budget.

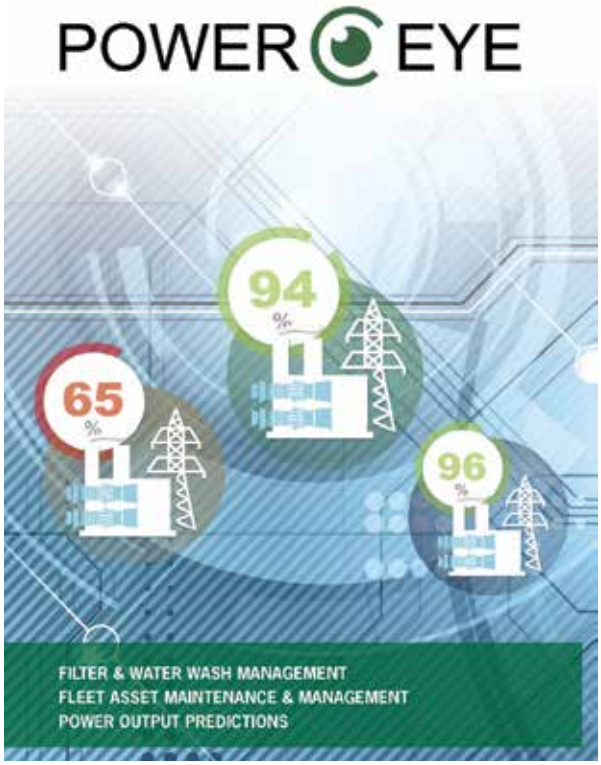
Fleet asset maintenance and management

Your gas turbine fleet is spread across many locations with different weather and environmental conditions. Each environmental condition has a different impact on the performance of the intake filters and the engines. PowerEye gives you the vision to see which locations and assets are underperforming so that you can allocate resources and take action where it will have the most impact.

Power output predictions

PowerEye enables your facilities to predict future power output with a high degree of accuracy. Your company can make commitments and deliver power to the grid with confidence, so you meet your contractual obligations and avoid the penalties of underdelivering.

Visit www.camfil.com/PowerEye



BoostToReduce

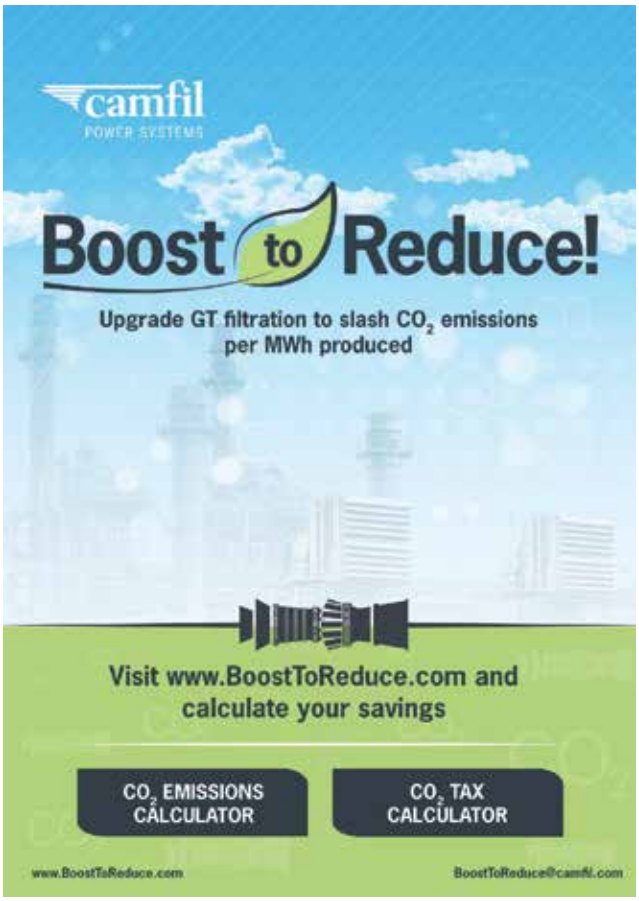
‘‘Upgrade GT Filtration to slash CO_2 emission per MWh produced’’

With rising operational costs and a growing demand for greener practices, it has become imperative for gas turbine operators to cut their carbon footprints, reduce operational costs, and become more efficient.

Air inlet filters are the easiest, most cost-effective way to dramatically reduce carbon emissions across your entire gas turbine operation.

When you use more efficient air intake filters, you could slash your CO_2 emissions by more than 5% per year, per megawatt hour produced.

Visit our website to learn more and calculate your carbon savings with our online calculators at www.BoostToReduce.com.



30/30 GT

Advantages

- High mechanical strength
- Rigid, reinforced water resistant cardboard frame
- Large media surface
- Unique radial pleat design
- Bonded into case to eliminate air bypass
- Compact

Application: Suitable for most areas
Frame: Water resistant cardboard
Media: Cotton/Synthetic
Rec. final pressure drop: 250 Pa
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Universal frame or clip
Comment: Additional information: Different clips available for mounting combinations with different filters.

ISO16890

The 30/30GT® has been setting the standard for G4/MERV 8 panel pre-filters. The combination of the unique media, robust construction and pleating technology makes the Camfil 30/30GT a low pressure drop pre-filter that performs well in all situations

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
540F-FG070205001	30/30 GT 24x24x4	MERV 8	G4	Coarse 70%	594x 594x 95	4250/ 85	2.5	1.1
*540F-FG402312001	30/30 GT 24x24x4	MERV 8	G4	Coarse 70%	594x 594x 95	4250/ 85	2.5	1.1
*540F-FG402312001A	30/30 GT Special 24x24x4	MERV 8	G4	Coarse 70%	592x 592x 95	4250/ 85	2.5	1.1
*540F-FG402312005	30/30 GT Special 24x24x3.5	MERV 8	G4	Coarse 70%	592x 592x 89	4250/ 85	2.5	1.1
540F-FG406332005	30/30 GT Dual 10 24x24x4	MERV 9	G4	ePM10 50%	592x 592x 95	4250/ 85	2.5	1.1

**with gasket*
**Available in Dual 10 media*
**Turbomachinery ISO 29461-1 test standard is available upon customer reques*

CamClose

Advantages

- Pre-filter with longer life and a lower and more stable pressure drop
- Lightweight and easy to install
- Can be used as hydrophobic or a coalescing air filter
- Patented pressure drop port for easy monitoring
- Optional built-in or external clips for easy installation
- Non-discharging, high efficiency media
- High burst strength > 6250 Pa (25" w.g.)

Application: Suitable for most areas including wet and coastal
Frame: Plastic moulded
Gasket: Polyurethane, endless foamed
Media: Glass fiber, Synthetic
Separator: Hot-melt
Max. final pressure drop: 450 Pa
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Integrated clip on or optional without clip. Separate metal clip available.
Comment: Additional Product Features : High mechanical strength, Optimal coalescing performance, High strength plastic frame, Downstream media support, Patented pressure drop port, Downstream spacer for optimal airflow, Can be fitted directly to a final filter with built-in clips.

The CamClose is Camfil's new generation panel air filter designed to extend the service life of final filters. By adding the CamClose pre-filter in front of the final filter, overall filtration efficiency is further improved.

CamClose has a user-friendly design, robust construction, and best-in-class water handling properties. These features make it an excellent pre-filter for most turbomachinery and gas turbine applications. It is especially suitable for humid conditions such as tropical and coastal installations. The CamClose pre-filter has been engineered to enable hassle-free operations, increased performance and offers excellent protection.

Art. No.	Type	EN779	ISO29461-1	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
CCLS00040001PE00MY	CamClose GT 24245-G4-with clips	G4		Coarse 60%	592x 592x 129	4250/ 55	2.4	3
CCLS00040001PU00MY	CamClose GT 24245-G4-with clips	G4		Coarse 60%	592x 592x 129	4250/ 55	2.4	3
CCLS00040101PE00MY	CamClose GT 24245-G4-without clips	G4		Coarse 60%	592x 592x 129	4250/ 55	2.4	3
CCLS00040101PU00MY	CamClose GT 24245-G4-without clips	G4		Coarse 60%	592x 592x 129	4250/ 55	2.4	3
CCLS00050101PE00MY	CamClose GT M5-592*592*129-with clips	M5	T5	ePM10 65%	592x592x129	4250/125	12	4.7
CCLS00050101PU00MY	CamClose GT M5-592*592*129-with clips	M5	T5	ePM10 65%	592x592x129	4250/125	12	4.7
CCLS00050001PE00MY	CamClose GT M5-592*592*129-without clips	M5	T5	ePM10 65%	592x592x129	4250/125	12	4.7
CCLS00050001PU00MY	CamClose GT M5-592*592*129-without clips	M5	T5	ePM10 65%	592x592x129	4250/125	12	4.7
CCLS00060101PE00MY	CamClose GT M6-592*592*129-with clips	M6	T6	ePM2,5 50%	592x592x129	3400/145	12	4.7
CCLS00060101PU00MY	CamClose GT M6-592*592*129-with clips	M6	T6	ePM2,5 50%	592x592x129	3400/145	12	4.7
CCLS00060001PE00MY	CamClose GT M6-592*592*129-without clips	M6	T6	ePM2,5 50%	592x592x129	3400/145	12	4.7
CCLS00060001PU00MY	CamClose GT M6-592*592*129-without clips	M6	T6	ePM2,5 50%	592x592x129	3400/145	12	4.7

Filter Class according to EN779:2012
**Please refer to CSG for other grade filter article number*
**(Filter size: 592x592x129mm)*
**Turbomachinery ISO 29461-1 test standard is available upon customer request*

CamClose Compact

Advantages

- High water removal efficiency
- High dust holding capacity
- High strength ABS frame
- Fully incinerable

Application: Pre-filter with high efficiency removal of water and mist with medium efficiency removal of airborne particulates
Frame: ABS
Gasket: Polyurethane, Neoprene
Media: Glass fiber, Synthetic
Sealant: Polyurethane
Rec. final pressure drop: 450 Pa
Relative Humidity max: 100%
Comment: DIN 53438.

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
5302001	Camclose Compact - 592x592x96-G4	MERV 7	G4	Coarse 70%	592x 592x 96	4250/ 60	2.3	2.5
5302005	CamClose Compact -592x592x96-M6	MERV 11	M6	ePM2,5 50%	592x 592x 96	4250/ 105	2.3	5.0

**Gasket is standard*
**Turbomachinery ISO 29461-1 test standard is available upon customer request*

Cam-Flo GT Hybrid

Advantages

- Hybrid Technology media
- Maximum surface use
- High mechanical strength
- Incinerable bags
- High dust holding capacity = long life
- Recommended choice for gas turbine pre-filtration

Application: Installations exposed to turbulence and harsh environments
Frame: Stainless steel, Galvanised steel
Gasket: Polyurethane, Neoprene, Flat gasket
Media: Hybrid Synthetic and Glass Technology
Rec. final pressure drop: 450 Pa
Max airflow: 1,8 x nominal flow
Max Temperature (°C): 70 °C
Comment: Additional Information :Available in half and special size filters on request.

The Cam-Flo Hybrid is a new generation of premium bag filters for gas turbines that utilize the breakthrough Hybrid media technology to combine glass fiber and synthetic fibers. The results is a smart solution for an extended filter life, a stable and predictable performance, and most of all, carefree operations. Self-supporting bags and a unique design make this filter an excellent pre-filter and coalescer choice for turbomachinery applications.

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO29461-1	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)
3501501	CamFlo GT Hybrid M6-592*592-640*10-65-25	MERV 12	M6	T6	592x 592x 640	4250/ 80	10	8.5
3502003	CamFlo-GT Hybrid-592*592*-640*10-85	MERV 13	F7	T7	592x 592x 640	4250/ 90	10	8.51
3502001	CamFlo X7 Hybrid-620*580-600*10-85	MERV 13	F7	T7	595x 595x 600	4250/ 90	10	8.51
3502002	Cam-Flo X7 Hybrid-620*580-600*10-85	MERV 13	F7	T7	620x 580x 600	4250/ 90	10	8.49
3507002	CamFlo GT Hybrid F9 592*592-640*10-98-25	MERV 15	F9	T9	592x 592x 640	4250/ 165	10	8.5

**Also available in half size and shorter bag*
**Turbomachinery ISO 29461-1 test standard is available upon request*

CamGuard

Advantages

- Guard filter in combination with a high velocity bag filter
- Allows on-line filter replacement of earlier stages
- Suitable for high velocity applications

Application: Suitable for all environments including high velocity air inlet systems. Typical for coastal and offshore installations
Pre-filter for gas turbines, large industrial air compressors, diesel & gas engines, generators & enclosures
Frame: Stainless steel
Media: Synthetic
Max Temperature (°C): 70°C
Comment: Additional information: Designed for use in combination with Cam-Flo GT HV.

The CamGuard is a coarse filter that is installed downstream of the Cam-Flo GTX7, allowing online filter replacement thus reducing costly downtime.

Type	Material	EN779	Dimensions WxHxD (mm)	Area (m²)	Weight (kg)
CamGuard CCS	Stainless steel	G4	618x 577x 630	1,7	2

Hi-Cap GT

Advantages

- Optimized filter area with conical filter bags
- Resistant media
- High dust holding capacity
- Low pressure drop
- Incinerable bags

Application: Comfort air conditioning applications, gas turbines.
Frame: Galvanised steel, ABS
Gasket: Polyurethane, Neoprene, Flat gasket
Media: Polyester
Dimensions: Filter front dimensions according EN 15805
Rec. final pressure drop: 250 Pa
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Installation Options: Front and side access housings and frames are available, Type 8 and FC Housings

Hi-Cap GT is a high quality filter, available for the removal of coarse particles. It allows for a secure and efficient filtration in industrial environments where large amounts of dust are present. Long experience and continuous R&D has optimised the product for impressive filtration at a low cost.

Art. No.	Type	ASHRAE 52.2-2017	EN779	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Bags	Area (m²)	Weight (kg)
3204012	Hi-Cap GT 592*592*6*360-G4	MERV 7	G4	Coarse 60%	592x 592x 360	4250/ 50	6	2.6	2.2
3204009	Hi-Cap GT 592*592-6*580-G4	MERV 7	G4	Coarse 60%	592x 592x 580	4250/ 30	6	4.2	3.2

Hi-Cap other dimensions available on request
**Turbomachinery ISO 29461-1 test standard is available upon customer request*

CamPGT

Advantages

- F7 to E10 (EN779:2012 / En1822)
- ISO ePM1 70%, 85% and 95%
- Low pressure drop maximizes equipment output
- Reduces fuel/energy consumption
- Light weight construction for easy mounting
- Downstream synthetic scrim protection
- Fully incinerable

Application: Suitable for demanding operating conditions like heavy polluted rural or industrial areas
Frame: Plastic moulded
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt Separator Technology
Sealant: Polyurethane
Grille, Downstream: Support grid for filtermedia
Rec. final pressure drop: 450 Pa
Max Temperature (°C): 70°C
Comment: Additional information : 4 side PU sealant with scrim on 8 pack and 4 side sealant with 2 side scrim also available.

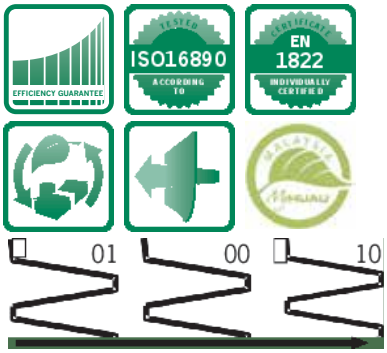
The CamPGT is an energy efficient solution functioning as a high efficiency filter in Camfil medium velocity multistage inlet houses. It is intended for inland industrial and rural areas. Its unique geometry provides a large inlet area and optimized air flow, thus offering a lower pressure drop than industry standard for V-shaped barrier filters.

Art. No.	Type	ASHRAE 52.2-2017	EN779	EN1822	ISO29461 -1	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
PGT02011112210MY	CamPGT 4H300 Std	MERV 14	F7			ePM1 55%	592x 592x 292	4250/ 95	17	4,3
PGT02021112210MY	CamPGT 4H300 Std	MERV 15	F8		T7	ePM1 70%	592x 592x 292	4250/ 115	18	4,3
PGT02031112210MY	CamPGT 4H300 Std	MERV 16	F9		T9	ePM1 80%	592x 592x 292	4250/ 130	19	4,3
PGT02041112210MY	CamPGT 4H300 Std			E10	T10		592x 592x 292	4250/ 210	24	4,3

*XL versions available on demand**

**Turbomachinery ISO 29461-1 test standard is available upon customer request*

CamGT 4V-300



Advantages

- Hydrophobic filter construction and media
- Low operational pressure drop, even when wet, with patented built-in drainage
- Sealed on all sides and featuring our patented double sealing process
- Resistant to turbulence and extreme pressure drop
- Patented Aerodynamic support grid for lower pressure drop
- Optimized media area for the lowest pressure drop at EPA efficiency

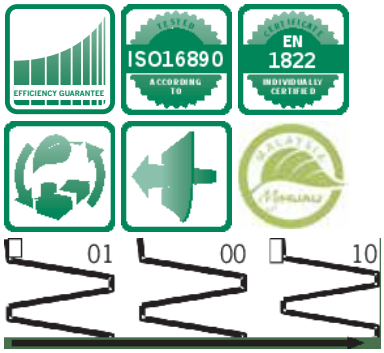
Application: All installations where safety/reliability/long life is important, especially areas with high humidity/heavy rain
Pre- or final filter for gas turbines, large industrial air compressors, diesel & gas engines, generators & enclosures, wind turbines
Frame: Plastic moulded
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Grille, Downstream: Support grid for filtermedia
Rec. final pressure drop: 600 Pa
Max airflow: 1,3 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Comment: Fire rating: Available according to DIN4102 class b2 rating on request
Burst strength: > 6250 Pa continuous wet/soaked
Reverse flow version: With support grid available on request
Additional information: Also available in 1/2 and 3/4 size on request.

CamGT 4V-300 is a high efficiency air inlet filter used for second and/or third stage filtration, depending on the gas turbine air inlet system. Typical range from M6 or MERV 11 up to E12 (EPA level), for the best gas turbine protection. Also available in versions with Fire rating DIN4102 class b2, Reverse flow, half-size and 3/4 size on request.

Art. No.	Type	ASHRAE 52.2-2017	EN779	EN1822	ISO29461-1	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)	ePM1	ePM1min	ePM2,5	ePM2,5min	ePM10
CGT1100111MY	CamGT 4V-300	MERV 13	M6			Coarse 60%	592x 592x 300	4250/ 105	19	8.0					
CGT1101111MY	4V-300-F7-Std	MERV 13	F7		T7	ePM1 70%	592x 592x 300	4250/ 130	19	8	72	72	80	80	93
CGT1101211MY	4V-300-F7-XL	MERV 13	F7		T7	ePM1 70%	592x 592x 300	4250/ 125	26	8.5	72	72	80	80	93
CGT1102111MY	4V-300-F8	MERV 14	F8		T8	ePM1 80%	592x 592x 300	4250/ 140	19	8	80	80	87	87	96
CGT1102211MY	4V-300-F8-XL	MERV 14	F8		T8	ePM1 80%	592x 592x 300	4250/ 135	26	8.5	80	80	87	87	96
CGT1103111MY	4V-300-F9	MERV 15	F9		T9	ePM1 85%	592x 592x 300	4250/ 165	19	8	85	84	89	89	96
CGT1103211MY	4V-300-F9-XL	MERV 15	F9		T9	ePM1 85%	592x 592x 300	4250/ 160	26	8.5	85	84	89	89	96
CGT1104111MY	4V-300-E10			E10	T10		592x 592x 300	4250/ 200	29	8.5	97	97	98	97	98
CGT1105111MY	4V-300-E11			E11	T11		592x 592x 300	4250/ 225	29	8.5					
CGT1106111MY	4V-300-E12			E12	T12		592x 592x 300	4250/ 325	30	8.5					

**EPA Class in green frame and F class filter in black frame*

CamGT 3V-440



Advantages

- Hydrophobic filter construction and media
- Low operational pressure drop, even when wet, with patented built-in drainage
- Sealed on all sides and featuring our patented double sealing process
- Resistant to turbulence and extreme pressure drop
- Patented Aerodynamic support grid for lower pressure drop
- Optimized media area for the lowest pressure drop at EPA efficiency

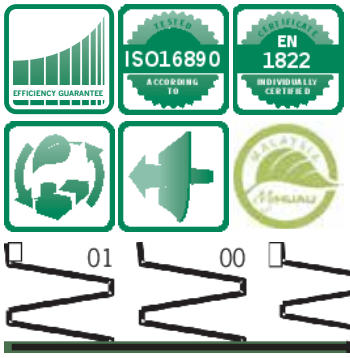
Application: All installations where safety and reliability is crucial. Low air resistance, long life and high dust concentrations
Frame: Plastic moulded
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Grille, Downstream: Support grid for filtermedia
Rec. final pressure drop: 600 Pa
Max airflow: 1,8 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Comment: Reverse flow version: With support grid available on request
Additional information: Also available in 1/2 and 3/4 size on request.

The CamGT 3V-440 is built on a solid 440 mm deep frame with extended media area. The unique design provides industry-leading pressure drop and dust holding capacity ensuring optimum performance, low average pressure drop and a long filter life. The filter is also available with CamBrane media in E12 efficiency.

Art. No.	Type	ASHRAE 52.2-2017	EN779	EN1822	ISO29461-1	ISO16890	Dimensions WxHxD (mm)	Airflow/ pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)	ePM1	ePM1min	ePM2,5	ePM2,5min	ePM10
CGT0302111MY	CamGT 3V-440-F8	MERV 14	F8		T8	ePM1 80%	592x 592x 440	4250/ 105	31	10.5	80	80	87	87	96
CGT0303111MY	CamGT 3V-440-F9	MERV 15	F9		T9	ePM1 85%	592x 592x 440	4250/ 125	29	10.5	85	84	89	89	96
CGT0304111MY	CamGT 3V-440-E10			E10	T10		592x 592x 440	4250/ 155	33	11	97	97	98	97	98
CGT0305111MY	CamGT 3V-440-E11			E11	T11		592x 592x 440	4250/ 175	33	11					
CGT0306111MY	CamGT 3V-440-E12			E12	T12		592x 592x 440	4250/ 310	34	11					

**EPA Class in green frame and F class filter in black frame*
**Turbomachinery ISO 29461-1 test standard is available upon customer request*

CamGT 3V-600



Advantages

- Largest media area for longest life or higher airflows application
- High filtration efficiency (up to H13)
- Patented vertical pleat
- Lowest air resistance (dP) for optimal economy
- Solid HEPA frame eliminates air bypass
- Patented aerodynamic grid
- Meets the industry's most stringent requirements

Application: All installations where safety/reliability is crucial in combination with low air resistance
Frame: Plastic moulded
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt
Sealant: Polyurethane
Grille, Downstream: Support grid for filtermedia
Rec. final pressure drop: 600 Pa
Max airflow: 1,8 x nominal flow
Max Temperature (°C): 70°C
Relative Humidity max: 100%
Comment: Burst strength: > 6250 Pa continuous wet/soaked. Additional information: Also available in reverse configuration with metal faceguard.

The CamGT 3V-600 is built on a solid 600 mm deep frame with extended media area. The unique design provides industry-leading pressure drop and dust holding capacity ensuring optimum perfomance, low average pressure drop and a long filter life. The filter is also available with CamBrane media in E12 efficiency.

Art. No.	Type	ASHRAE 52.2-2017	EN779	EN1822	ISO29461-1	ISO16890	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
CGT0202111MY	CamGT 3V 600-F8-Std	MERV 14	F8		T8	ePM1 80%	592x 592x 600	4250/ 100	41	15
CGT0203111MY	CAM GT 3V 600-F9-Std	MERV 15	F9		T9	ePM1 85%	592x 592x 600	4250/ 115	38	15
CGT0204111MY	CamGT 3V 600-E10-Std			E10	T10		592x 592x 600	4250/ 135	45	16
CGT0205111MY	CamGT 3V 600-E11-Std			E11	T11		592x 592x 600	4250/ 140	48	16
CGT0206111MY	CAM GT 3V 600-E12-Std			E12	T12		592x 592x 600	4250/ 190	50	17

**EPA Class in green frame and F class filter in black frame*
**Turbomachinery ISO 29461-1 test standard is available upon customer reques*

CamGT Box Type G II

Advantages

- Ensures water drainage
- High filtration efficiency
- Low pressure drop also in wet conditions
- Resistant to turbulence and high pressure drop
- Easy mounting
- Water resistant media

Application: All installations where safety/reliability is important
Frame: Plastic moulded
Gasket: Polyurethane, endless foamed
Media: Glass fiber
Separator: Hot-melt Separator Technology
Rec. final pressure drop: 600 Pa
Max Temperature (°C): 70°C
Comment: Additional information: XL version available on request. Profile placed at 292 mm depth for clamping, i.e for fastener spring type C-80.

CamGT Box Type G is a high-capacity filter for turbomachinery. Thanks to the unique design, its performance is maintained in humid or wet conditions, guaranteeing a long lifetime and a good filter economy.

Art. No.	Type	ASHRAE 52.2-2017	EN779	EN1822	Dimensions WxHxD (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
2472001	Cam GT Box Green II 592*592*315-F7-01	MERV 13	F7		592x 592x 315	4250/ 140	19	7,3
2472004	Cam GT Box Green II 592*592*315-F9-01	MERV 15	F9		592x 592x 315	4250/ 200	19	7,3
2472007	Cam GT Box Green II 592*592*315-E10-01			E10	592x 592x 315	4250/ 240	19	7,3
2472010	Cam GT Box Green II 592*592*315-F7-01 (XL)	MERV 13	F7		592x 592x 315	4250/ 135	22	7,8
2472013	Cam GT Box Green II 592*592*315-F9-01 (XL)	MERV 15	F9		592x 592x 315	4250/ 190	22	7,8
2472016	Cam GT Box Green II 592*592*315-E10-01 (XL)			E10	592x 592x 315	4250/ 220	22	7,8

**Turbomachinery ISO 29461-1 test standard is available upon customer request*

TurboPulse GTC10

Advantages

- Best fuel efficiency leads to lower CO2 emissions per MWh
- Suitable for harsh environments
- Fast and easy installation
- Fully incinerable
- Corrosion-proof
- Self-cleaning cartridge filter with longer filter life
- Lower and more stable pressure drop
- Improved pulsability due to HemiPleat open-pleat media technology
- Best pulsability with depth-loading media and multi-layer media technology
- Higher availability and highest reliability

Application: Humid or dry heavy dust load areas, coastal and fine hydrocarbon environments.
Pre- or final filter for gas turbines, large industrial air compressores, diesel & gas engines, generators & enclosures
Gasket: Double seal, molded TPE
Media: Synthetic
Separator: HemiPleat Technology
Sealant: Polyurethane
Max Temperature (°C): 70°C
Pleat: HemiPleat
Comment: Additional product features:
Patented proven open-pleat media HemiPleat™ technology
Non-discharging T10 (ISO 29461-1:2021)
Water resistant media
Improved dust release
Optimal ability to handle daily fog and humidity
High efficiency against salt and hydrocarbons
Filter wraps available on demand.
Fits any standard conical-cylindrical filter house installations
100% corrosion-proof
Fully incinerable
Faster and easier installation

Length (mm)	Diameter (mm)	Length 2 (mm)	Diameter 2 (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
678	447-360	678	360-322	2500/ 160	13.5

CamPulse GTC

Advantages

- HemiPleat ™technology-proven open pleat solution
- Non discharging F9
- Water resistant media
- Improved dust release
- 2 in 1 package - saves space and money
- Optimal ability to handle daily fog and humidity
- Helicord design for efficient pulse cleaning

Application: For humid/dry heavy dust load areas. Our recommended choice for one-stage self cleaning air intake systems
Gasket: Polyurethane, endless foamed, EPDM
Media: Synthetic
Max Temperature (°C): 70° C
Pleat: HemiPleat
Comment: End caps: Available Galvanized steel (Standard), Powder coated, Stainless steel AISI304, Stainless steel AISI 31
Liners: External helical cords and internal screen, secure the filter element from movement without obstruction to the pulse
Additional information: Available in Co/Cy, Tenkay, and in other dimensions on request.

Our conical-cylindrical air inlet filters are available in vertical or horizontal designs, to best suit your system of choice. With our broad range of media, including EPA filters, we can offer an air inlet pulse filter for every environment and every gas turbine inlet. Camfil CamPulse with proven HemiPleat™ technology, combined with a synthetic media, delivers valuable benefits to gas turbine operation and maintenance.

Type	ASHRAE 52.2-2017	EN779	EN1822	ISO16890	Length (mm)	Diameter (mm)	Length 2 (mm)	Diameter 2 (mm)	Airflow/ pressure drop (m^3/h/ Pa)	Area (m^2)	Weight (kg)	ePM1	ePM1min	ePM2,5	ePM2,5min	ePM10
CyCy	MERV 15	F9		ePM1 80%	660	324	660	445	2500/ 145	35	12	84	83	88	88	96
CoCy	MERV 15	F9		ePM1 80%	660	324	660	445	2500/ 200	35	12					
CyCy	MERV 15		E10		660	324	660	445	2500/ 140	35	12					
CoCy	MERV 15		E10		660	324	660	445	2500/ 200	29	12					

CyCy = Large Cylindrical, Small cylindrical
CoCy= Large Conical, Small Cylindrical
**Turbomachinery ISO 29461-1 test standard is available upon customer request*

CamPulse GT Polytech HE

Advantages

- Patented HemiPleat™ technology· proven open
- Water repellent media protected by metal liners
- Each filter set is shipped together in one carton
- Galvanized metal finish
- Self-cleaning air filter cartridges
- Improved air distribution
- Suitable also in high humidity conditions
- Suitable as prefilter for filter class E10, E12
- Increased air to cloth ratio thanks to Hemi·Pleat ™technology.

Application: For desert/dry/ heavy dust load areas
Gasket: Polyurethane, endless foamed, EPDM
Media: Polytech HE
Max Temperature (°C): 70° C
Pleat: HemiPleat
Comment: Additional information: Available as dimple pleated and in fire retardant version on request.

Camfil CamPulse with proven HemiPleat™ technology, combined with a synthetic media, delivers valuable benefits to gas turbine operation and maintenance.

Type	ASHRAE 52.2-2017	EN779	Length (mm)	Diameter (mm)	Length 2 (mm)	Diameter 2 (mm)	Airflow/pressure drop (m³/h/Pa)	Area (m²)	Weight (kg)
CyCy	MERV 16	F7	660	324	660	445	2500/ 165	34.7	12.8
CoCy	MERV 16	F7	660	324	660	445	2500/ 195	34.7	12.8

CyCy = Large Cylindrical, Small cylindrical
CoCy= Large Conical, Small Cylindrical
**Turbomachinery ISO 29461-1 test standard is available upon customer request*

Tenkay

Advantages

- High filtration efficiency
- Excellent energy performance
- Long life
- Continuous one-piece gasket
- Factory bonded steel top and bottom headers
- Pleated media
- Helical cord retainer

Application: Vertical pulse filter for desert/dry/ heavy dust load areas
Gasket: Polyurethane, endless foamed, EPDM
Media: Synthetic, Membrane, Polytech HE
Rec. final pressure drop: 600
Max Temperature (°C): 70° C
Comment: Size: Standard 34", 22" and 27" on request.
Additional information: Also available as CamBrane E12, Goldcone, and eXtreme versions on request.

The Tenkay HemiPleat™ filters for turbomachinery provide enhanced performance and longer service life, thanks to greater media utilization and more effective filtration. The HemiPleat™ separator bead opens up the pleats uniformly, allowing more effective cleaning, low pressure drop and long life.

Type	ASHRAE 52.2-2017	EN779	EN1822	Length (mm)	Diameter (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
Polytech HE	MERV 13	F7		864	324	1150/ 145	8,6
GTC	MERV 16	F9		864	324	1150/115	8.6
GTC	MERV 15		E10	864	324	1150/ 130	3.8

Energy Consumption, kWh/year: Calculated according to Eurovent Guideline 4/21-2019
Energy class: according to Eurovent RS 4/C/001-2019
**Turbomachinery ISO 29461-1 test standard is available upon customer request*

Composite Filters Polytech Nano

Advantages

- High filtration efficiency
- Excellent energy performance
- Long life time
- One-piece gasket provides rigidity and eliminates leakage
- Dimple pleating increased media area available for filtration
- The nano layer acts like a pre-filter to the base media and doesn't allow most dust particles to "depth" load or imbed in the media

Application: All installations where safety/reliability is important
Gasket: Polyurethane
Media: Polytech Nano
Comment: End caps: Galvanized or Stainless Steel (top & bottom)
Rec. temperature - Operating: 71°C
Rec. temperature - Surge: 82°C
Standard configuration: Cylindrical element type

The composite cartridge filter has two stages in a composite design: an inner filter that works as a pre-filter extending the life of the final filter and a high efficiency outer filter. The inner filter is a depth loading high loft synthetic with high air permeability. It is constructed with a reusable velcro retainer attached to the inside of the top filter pan for easy installation and removal. Typically changed more often than the outer filter it protects against coarse particles, humidity and salt.

The outer filter is synthetic non-discharging fibre media resistant to humidity and able to withstand high dust load concentrations. The medias unique properties give the filter a high level of efficiency over its entire lifetime. The smooth synthetic fibres offer low resistance to airflow and maintain a low pressure drop during the life of the filter. The combination of surface- and depth-loading media is the ideal solution for removing hygroscopic particles in areas of high humidity, which makes this the perfect choice for most installations.

Type	EN779	Length (mm)	Diameter (mm)	Length 2 (mm)	Diameter 2 (mm)	Airflow/pressure drop (m³/h/Pa)
Composite Filter	F8	660	355	660	446	3400/ 220

**Turbomachinery ISO 29461-1 test standard is available upon customer request*

Composite Filters GTC (LM6000 Series)

Advantages

- High filtration efficiency
- Excellent energy performance
- Long life time
- One-piece gasket provides rigidity and eliminates leakage
- HemiPleat™ technology · Uniform media pleating allows for minimum airflow restrictions and lower pressure drop

Gasket: Polyurethane
Media: Synthetic
Comment: End caps: Galvanized or Stainless Steel (top & bottom)
Rec. temperature · Operating: 71°C
Rec. temperature · Surge: 82°C
Standard configuration: Cylindrical element type

The LM6000 series fit GE's LM6000 Air Inlet Systems. The cartridge has two filtering stages in a composite design: an inner filter that works as a pre-filter extending the life of the final filter and a high efficiency outer filter. The inner filter is a depth loading high loft synthetic with high air permeability. It is constructed with a reusable velcro retainer attached to the inside of the top filter pan for easy installation and removal. Typically changed more often than the outer filter it protects against coarse particles, humidity and salt.

The outer filter is our GTC synthetic non-discharging fibre media resistant to humidity and able to withstand high dust load concentrations. The GTC media unique properties give the filter a high level of efficiency over its entire lifetime. The smooth synthetic fibres offer low resistance to airflow and maintain a low pressure drop during the life of the filter. The combination of surface- and depth-loading media is the ideal solution for removing hygroscopic particles in areas of high humidity, which makes this the perfect choice for most installations. The outer filter pack also has patented open HemiPleat™ construction with uniformly spaced pleats across the length of the pack.

Type	EN779	Length (mm)	Diameter (mm)	Length 2 (mm)	Diameter 2 (mm)	Airflow/pressure drop (m³/h/Pa)	Media Type
LM6000 Series GTC	F9	660	355	660	446	3400/ 235	Synthetic

**Turbomachinery ISO 29461-1 test standard is available upon customer request*

CamPulse CamBrane

Advantages

- Self-cleaning cartridge filter with long filter life and low and stable pressure drop
- Improved pulsability due to HemiPleat open-pleat media technology
- Good pulsability with depth-loading and multi-layer media technology
- High availability and highest reliability
- Best fuel efficiency leads to lower CO2 emissions per MWh
- E12 grade limits degradation such as fouling and corrosion
- Suitable for harsh environments

Application: Humid or dry heavy dust load areas, coastal and fine hydrocarbon environments
Pre- or final filter for gas turbines, large industrial air compressores, diesel & gas engines, generators & enclosures
Gasket: Polyurethane, endless foamed, EPDM
Media: Membrane
Max Temperature (°C): 70°C
Pleat: HemiPleat
Comment: End caps: Available in Galvanized steel (Standard), Power coated, Stainless steel AISI304, Stainless steel AISI 316
Construction with outercage and innercage also available as Cylindrical/Conical.

The CamBrane combines a variety of filtration technologies into one unique composite media tailored for the tough requirements of modern gas turbines. The synthetic pre-filter layer is extremely efficient on small particles, hydrocarbons and airborne salt while the membrane layer adds a barrier to submicron particles and stops water and salt from penetrating the filter. CamBrane offers best-in-class protection at lowest possible air flow restriction.

Type	EN1822	Length (mm)	Diameter (mm)	Length 2 (mm)	Diameter 2 (mm)	Airflow/pressure drop (m³/h/Pa)	Weight (kg)
CyCy	E12	660	324	660	445	2500/ 180	12
CoCy	E12	660	324	660	445	2500/ 285	12

CyCy = Large Cylindrical, Small cylindrical
CoCy= Large Conical, Small Cylindrical
**Turbomachinery ISO 29461-1 test standard is available upon customer request*

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Gold Series®

Advantages

- High efficiency collector using HemiPleat® cartridges
- Modular design for optimum flexibility
- Customised for Original Equipment Manufacturers (OEM)
- Easy to install and maintain
- Simple cartridge replacement using quick release cam bars
- Up to 25% smaller
- ATEX and NFPA available upon request

Application: The Gold Series® cartridge dust and fume collectors may be used for a wide range of pollution control and product recovery applications including: Blasting, Chemical Processing, Pharmaceutical Manufacturing Processes, Fiberglass and FRP, Food Processing, Laser/Plasma Cutting, Paper Scrap, Rubber Grinding, Seed Processing, Mining, Thermal Spray and more. Contact Camfil for more information

Type: Dust collector

Options: A wide variety of options are available including: Explosion Venting, Special Inlet Designs, BIBO (bag in-bag out) for Pharmaceutical Applications, Custom Colours, Stainless Steel Construction, Alternative Hopper Designs etc. please contact us with your specific requirements

Cartridges: Vertically mounted to shed dust readily for efficient cleaning and longer service life. High filtration efficiency meeting the 5 mg/m^3 or less emissions required to re-circulate the air back into the work place on non hazardous dusts

Features

- Modular design for optimum flexibility-have it your way fast!
- Each module accommodates airflows up to 8,500 m3/h
- Module constructed of 4.5mm thick carbon steel
- Door, hopper, inlet and panels are all 3.4mm thick
- Powder painted for unsurpassed corrosion resistance
- Component configurations are virtually unlimited
- Vertical design of cartridges enables efficient pulse cleaning of dust

Easy Maintenance

Simple, quick-open heavy gauge door(s) provide access to a super-fast cartridge change-out system that does not require entry into the collector. The door is fully reversible for access from either side and has an exclusive lock-out feature for worker safety.

Easy Access Door

- No knobs to lose or drop
- No threads to bind
- Mechanically attached seal
- Heavy 3.4mm thick construction

Easy Change-out

Gold Cone™ cartridge with patented cambar action that positively seals the cartridges without using threads or knobs.

Gold Series® Camtain®

Advantages

- Designed specifically for pharmaceutical and containment applications
- Bag-in/bag-out safe change options available.
- High efficiency collector using HemiPleat® cartridges
- Modular design for optimum flexibility
- Customised for Original Equipment Manufacturers (OEM)
- Easy to install and maintain
- Simple cartridge replacement using quick release cam bars
- Up to 25% smaller

Application: The Farr Gold Series® Camtain® is used in a wide range of pharmaceutical applications including tablet presses, coating, fluid bed and spray drying, blending, granulation and general ventilation. Contact Camfil for more information

Type: Dust collector

Options: A wide variety of options are available including: BIBO

(bag-in/bag-out) for Pharmaceutical Applications, Explosion Venting, Special Inlet Designs, Custom Colours, Stainless Steel Construction, Alternative Hopper Designs etc. please contact us with your specific requirements

Cartridges: Vertically mounted to shed dust readily for efficient cleaning and longer service life. High filtration efficiency meeting the 5 mg/m^3 or less emissions required to re-circulate the air back into the work place on non hazardous dusts

Features

- **Safe-change containment systems are available for both the filter cartridges and discharge system underneath the collector.**
- **The cartridge change utilizes the safe change filter replacement method while the discharge uses continuous liner technology.**
- **The Farr Gold Series Camtain is perfect for high efficiency filtration in pharmaceutical manufacturing processes where recovery of the product is not required.**
- **The only dust collector that is potent compound surrogate tested for validated performance verification. Test report available upon request.**

Quad Pulse Package

Advantages

- Economical, space-saving cleaning unit requiring just a single primary filter cartridge
- Cleaning during operation for production process and product quality control
- EN14460:2006 Explosion Resistance Equipment
- Low pressure drop across the filter for energy cost savings
- Camfil pleated filter technology provides exceptional dust release enabling extended filter service life and reduced filter replacement

Application: The Quad Pulse Package compact dust collector provides a cleanable filter system for the pharmaceutical and chemical industries

Type: Dust collector

Compact and strong unit construction incorporates a unique HEPA filter design, with specialized materials from the aerospace industry, providing the following key advantages:

- The Quad Pulse Package HEPA filter captures the fine dust particles and is a tested flame and contamination barrier.
- Additional, expensive explosion safety devices are not required.
- The pressure resistant housing maintains its integrity with no damage during an explosion event.
- Compact unit with flexibility for indoor installation reduces the need for long duct runs.

Quantum Series

Advantages

- Integrated spark arrestor
- Easy to install
- Economical
- Minimum footprint; maximum performance
- Newest pulse cleaning technology

Application: Welding (laser and manual) Laser and plasma cutting Dry machining. Non-explosive fine dust Shot blasting

Type: Dust collector

Installation Options: Fire suppression; Smoke detection; HEPA; Oneside service access.

Description:

The Quantum Series is a compact and powerful, fine dust collector designed for the metal fabrication, thermal cutting and welding markets. The Quantum Series' integrated spark arrestor and improved filter design allows this unit to provide the highest levels of efficiency and safety. Quantum Series product shot facing left. Designed to take up the minimum possible floor space, the Quantum Series can be located close to your processes in order to minimize duct work and reduce fire hazards created by sparks. Built with decades of proven filtration industry knowledge and expertise, the Camfil APC Quantum Series includes design features and high-end technology which has been tested and proven in our range of market-leading dust and fume collectors.

Comment:

Incorporating Camfil APC's advanced filter design, the Quantum Series prevents the common filter failures suffered by competitive collectors. A patent pending filter segmenting and volume displacement design improves pulse cleaning efficiency and reduces the chance for re-entrainment and clogging, while also reducing pulsing energy and noise. A strategically placed and fully integrated spark arrestor allows for higher separation efficiency and smaller footprint.

Spark Arrestor: As sparks can cause poor performance, damage the collector and filter media or present a fire hazard, many dust collectors require an external spark arrestor that is expensive and requires more floor space. The Quantum Series has been designed to avoid these issues. Key Aspects: Integrated in the unit; Cyclonic separation of fine laser dust and metal sparks; Coarse, hot particles collected in separate bin; •1500 m^3/h - 6000 m^3/h; Unique, patent pending design

Handte Wet Scrubbers

Advantages

- No filter elements required
- The safest solution when dealing with flammable/combustible materials
- Universal applications
- High-level separation combined with safe operating technique
- Low-maintenance

Application: The Handte Vortex and Handte Venturi wet scrubber systems provide high-efficiency and low-maintenance removal of dusts and other hazardous substances from the workplace

Type: Wet Scrubber

Handte wet scrubbers are for applications where hazardous substances are in production processes. Examples:

- Steam: Washing machines, waste treatment, soldering, die-casting machines, releasing agents, paint vapors, cooling aggregates, spark discharge material removal machines, paint-stripping units, electro-plating units, lead production, electro-galvanizing plants, foundries
- Aluminum magnesium dust: Minimal lubrication, grit production, chip removal, de-burring, brushing, separating, finishing processes, forging processes, grinding and polishing
- Aluminum magnesium chippings: Drilling, machining, rough machining, sawing, de-burring, forming processes, recycling systems
- Rubber/leather/plastic fines: Shoe manufacturing, tire re-treading, plastics processing, foils
- Production, extruders, modeling, textiles manufacturing
- Fibers/fluff/textile dust: Polishing processes, paper machines, waste sorting systems, textile processing, recycling plants, insulation material production, asbestos abatement, food processing, grain processing
- Sticky powders: Pharmaceutical processes, manufacturing of food, animal feed, dyes, mold and die manufacturing, printing machines, tire and chip production, adhesive applications, textile finishing, mixing and conveying plants, plastics processing, ceramic coating

Zephyr III™ Portables

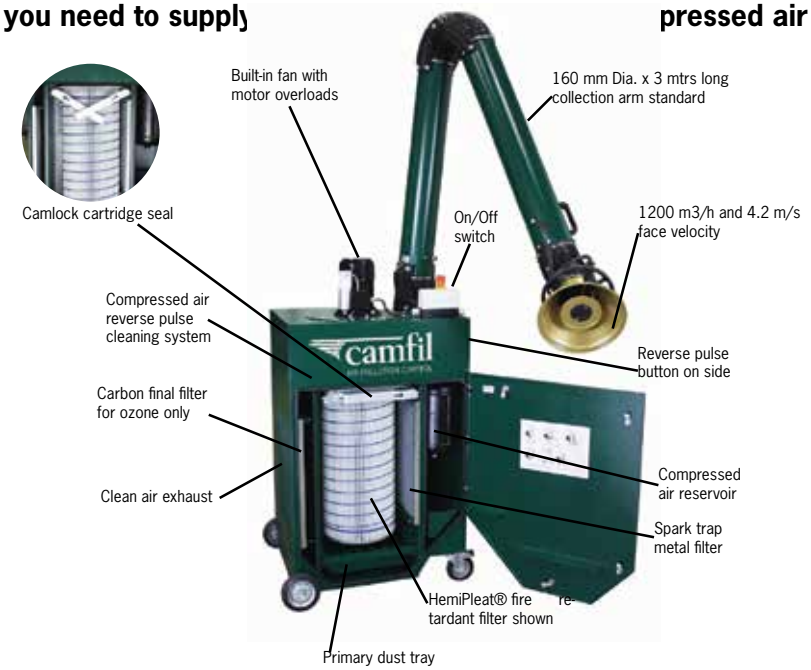
Advantages

- Portable air purification system
- Ideal for industrial process contamination, source capture, and for plants requiring periodic dust collection at various locations
- Complete unit-plug it in and start collecting dust and fumes
- Portable
- The only thing you need to supply is the electrical feed and compressed air line

Application: The Zephyr is a portable air cleaner for capturing welding fumes, grinding dusts, dry dusts, and soldering fumes, and other airborne particles. Not suitable for explosive dusts & solvent fumes.

Features

- **Roll out dust drawer**
- **Quick clamp cartridge sealing/removal**
- **Exterior arm adjustments**
- **Heavy duty fume arm is obstruction free inside**
- **Easy, 360º hood positioning**
- **1200 m3/h at the capture hood**
- **Three stage filtration: Primary spark trap, Gold Cone® HemiPleat® and Carbon after filter for ozone only**
- **Large wheels with swivels and brakes for ease in moving and positioning**
- **Tough powder coated surface finish inside and outside**
- **Venturi assisted pulse cleaning, manually activated**
- **Dust drawer grid minimizes dust re-entrainment**
- **Thermal overload in motor starter switch**
- **7.5 m extension cord**
- **The only thing you need to supply pressed air line**



Handte EM Profi

Advantages

- Modular, user-friendly design to provide a high-end solution for high-efficiency emulsion (coolant) mist separation
- The highest available collection efficiencies, plus the ability to run “24/7” for reduced maintenance, service ease and lower operating costs
- No Leaks - guaranteed. German engineering and American manufacturing expertise result in premium quality products. We guarantee that our mist collectors will not leak
- Multi-stage Filtration - We consistently achieve high separation performance by designing our filter materials to meet specific needs or to handle a given droplet spectrum. We do this through optimized, flow-engineered, multistage design

Application: Handles the heaviest loads encountered in the industry to clean up contaminants generated during milling, drilling, tapping, turning, grinding and other machining processes that utilize emulsion mist coolants

Type: Mist Separator

Modular Design: Minimum space requirement, maximum performance. System can be expanded in the future as needed. Short delivery time. Easy transport and installation

Basic Modules: Ground/platform versions with optional return pump station (for recirculating separated fluids). Filter module (contains main and final filter).Connection box for use with an external fan. Connection can be on left, right or rear side. Built-in fan in compact design enclosure with integrated sound insulation. Top mount fan

Product Name	Air Volume m³/h	Dimension (WxD) mm	mm	Weight (kg)
Handte EM Profi 3.0	3000	798 x 958	2942	555
Handte EM Profi 4.5	4500	798 x 1208	2102	705
Handte EM Profi 6.0	6000	1548 x 958	2127	850
Handte EM Profi 9.0	9000	1548 x 1208	3461	1625
Handte EM Profi 13.5	13500	2298 x 1208	3525	2139

Handte Oil Expert

Advantages

- Economically efficient separation of ultra-fine cooling liquid mists and fumes
- Collection efficiencies at 99.97% on 0.3 micron and higher particle size with the optional HEPA final filter
- Long-life filters
- 24/7 operation
- Air flow can be adjusted without affecting the collection efficiency
- Operator-friendly due to low-maintenance design
- Tool-free filter changes with quick-acting clamps
- Optional clean air recirculation
- Plug-and-play delivery

Type: Mist Separator

Progressive filtration design: The progressive design of ascending filter classes provides the highest filtration efficiency available in the industry. This includes the coarse separator mesh for high contamination, the standard CoaPack diffusion filter as a preliminary filter, a fine filter and the optional downstream final stage filter. This design makes it possible to configure the system for simple applications or for highly complex requirements such as clean air recirculation. This is especially true for ultra-fine mists and fumes generated in the course of high-performance machining

Modular design for flexible configuration: The compact, modular design of the Handte Oil Expert provides for easy, efficient adaptation to specific requirements and installation situations. It is available in four standardized basic modules with different air capacities, which can be combined in a large central system. State-of-the-art technology enables flexible adjustment for system conversions or expansion as production requirements increase

Innovative filter media: The unique structure of the standard CoaPack filter material combines premium separation performance with self-cleaning features via optimum drainage of the separated cooling lubricant. This ensures extremely long filter life of the optional HEPA final filter

Easy filter change for simple, clean maintenance: The operation of the Handte Oil Expert is practically maintenance free. When infrequent filter changes are needed, the change-out is clean, easy and requires no tools. The closed filter cassettes can be removed without being exposed to the oil coated filter materials

Customizable: By combining different basic modules, it is possible to design economically efficient central extraction systems for each requirement capable of air volumes of 41,000 cfm or more. The modular concept of the Handte Oil Expert provides for smooth, cost-efficient production conversions or extensions during ongoing operation

With increasing production in modern manufacturing, energy consumption continues to grow, particularly in machining processes where cooling lubricants are used. As a result, there are higher demands for the separation of ultra-fine mists and fumes. Worker safety, production efficiency and capital equipment protection cannot be compromised. The Handte Oil Expert provides for optimum results even under the most challenging conditions.

Product Name	Air Volume m^3/h	Dimension (WxD) mm	mm	Weight (kg)
Handte Oil Expert 3.0	3000	770 x 1190	2900 - 3900	1075
Handte Oil Expert 4.5	4500	770 x 1735	3050 - 4200	1420
Handte Oil Expert 6.0	6000	1240 x 1190	3020 - 4380	1745
Handte Oil Expert 9.0	9000	1240 x 1190	3035 - 4620	2585
Handte Oil Expert 13.5	13500	1784 x 1735	3400 - 4620	3895

HemiPleat® Gold Cone™

Advantages

- Original spare for Farr Gold Series® dust collectors
- Vertically integrated cartridge for better dust release and ease of removal and installation
- Excellent energy saving performance
- Extended Filter Life
- High Filtration Efficiency
- Pour in place one piece double gasket

Application: Air Pollution Control filter cartridge to collect dust, fumes and/or oil mist in many different industrial applications and processes

Type: Pleated Cylinder

Gasket: Polyurethane, endless foamed

Separator: HemiPleat Separator Technology

Sealant: Polyurethane

Temperature max: 70° Operating

Mounting/Frames: Internal GV support cage

Filter Class: M

- Featuring an injection molded inner cone in the center of the cartridge, cleaning is accomplished by pulse waves that emanate outward from this inner cone providing enhanced cleaning for more efficient operation, longer cartridge life and reduced service requirements.
- The new PolyTech™ media is the most advanced pulse-cleaned media ever made, and now comes standard with a moisture resistant treatment for high humidity resistance.
- Continuous double seal gaskets give added insurance against leaks. No other filter design gives you a double seal barrier.
- The separation beads, NOT the media beads, contact the inner cage, protecting the media from frictional damage.
- The HemiPleat separator bead opens up the pleats uniformly, allowing more effective cleaning and lower pressure drop.

Art. No.	Model Name	Length (mm)	Diameter (mm)	Media area (m²)	Weight (kg)	Media Type
325325-001	GS-GR-325	990	381	30.20	15	Standard Green
325325-002	GS-FR-325	990	381	30.20	15	Fire Retardant
325325-003	GS-CB-325	990	381	30.20	15	Carbon Impregnated
325325-004	GS-XG-325	990	381	30.20	15	eXtreme Green
325325-005	GS-XF-325	990	381	30.20	15	eXtreme Fire Retardant
325325-006	GS-XC-325	990	381	30.20	15	eXtreme Carbon Impregnated
325325-007	GS-SY-325	990	381	30.20	15	Synthetic
325325-008	GS-XS-325	990	381	30.20	15	eXtreme Synthetic

Dura-Pleat® Gold Cone®

Advantages

- Meets widest range of tough application challenges;handles difficult dusts
- Washable media may be resused in many applications
- Exceptionally rugged, long-lasting
- Vertically integrated cartridge for better dust releaseand ease of removal and installation

Application: Dura-Pleat media is made of 100% spun bond polyester in a pleated design that combines the best of both worlds: the high efficiency of pleated media and the versatility of synthetic materials.
Filter cartridges with Dura-Pleat technology capture and release more pollutants when pulsed, resulting in a safer, cleaner work environment with less maintenance.

Media Options

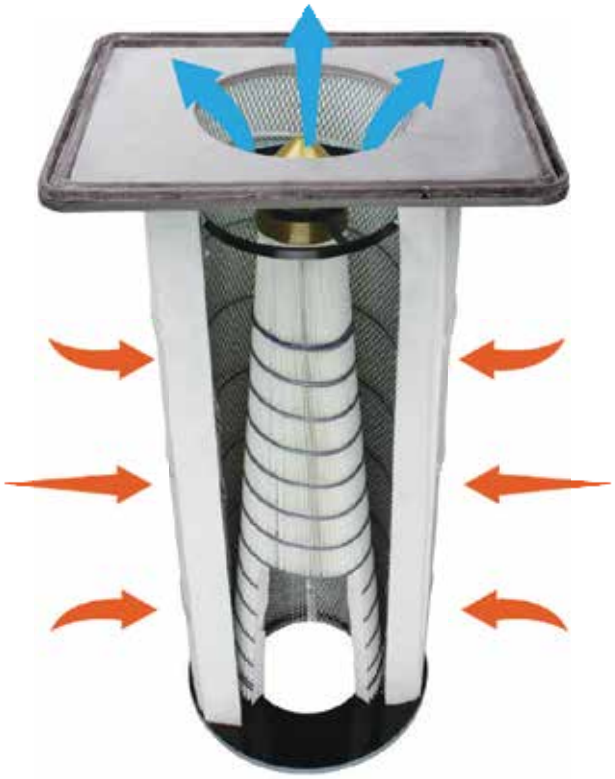
DPS - Dura-Pleat
Our spun-bonded, heavy-duty, all-purpose polyester media.

DPA - Aluminized
Our Dura-Pleat media with a conductive aluminized finish applied for static dissipation.

DPO - Hydro-Oleophobic
Our Dura-Pleat media coated with an oil and water repellent finish.

DPT - PTFE
Our Dura-Pleat media with a laminated polytetraflouroethylene (PTFE) membrane for very high efficiencies of fine particulate and superior dust cake release.

Dura-Pleat filters are rated MERV 10up to MERV 16 (PTFE).



HemiPleat® Retrofit

Advantages

- Less energy consumption
- Fewer filter change outs
- Better dust release
- Lower pressure drop
- Saving you money
- Longer filter life

Application: Synthetic beads are applied to our media in order to achieve even and open spacing. The open pleats create topmost utilization of media area resulting in longer lasting and highly efficient filter cartridges.

Camfil APC filter cartridges with HemiPleat technology have sizable dust loading capacity and allow for maximum dust release when pulsed. These industry superior characteristics result in a cleaner, safer and lower maintenance work environment.

Media Options

GR — Green
Our own blend of fibers with a moisture resistant treatment for the best dust release, long filter life and high filtration efficiencies.

FR — Flame Retardant
Our own blend of fibers, chemically treated with a flame retardant.

FC - FR Carbon Impregnated
Our own blend of fibers, impregnated with carbon for static dissipation and chemically treated with a flame retardent.

SY — Synthetic
A lightweight, washable polyester media.

HemiPleat filters are rated MERV 10 and higher.

HemiPleat High Efficiency filters are available for the GR, FR, and FC media options. A microfiber synthetic melt blown laminate is applied to the surface of the base media for high filtration efficiencies and are rated MERV 16.

Oval Retrofit

Advantages

- Low pressure drop
- Extended filter life
- High Filtration effeciency
- Direct fit replacement

Application & Dust Type

- Wood & paper dust
- Talc & cornstarch
- Sand & shot blasting
- Foundry sand
- Sanding dust
- Thermal spray
- Welding & soldering
- **Fumed silica dust**
- **Steel grinding**
- **Laser cutting**
- **PVC dust**
- **Carbon black**
- **Toner dust**

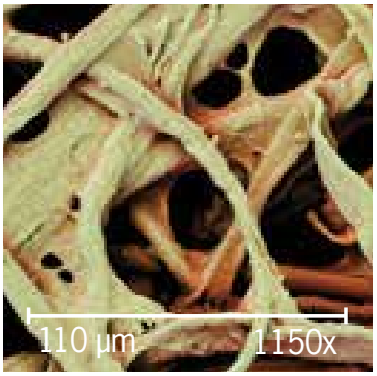
Media Options

FC — FR Carbon Impregnated
Our own blend of fibers, impregnated with carbon for static dissipation and chemically treated with a flame retardant.

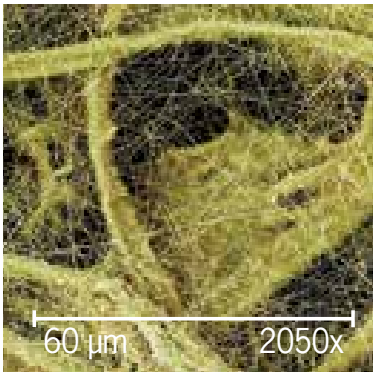
XF — eXtreme Flame Retardant
Our own blend of fibers, chemically treated with a flame retardant with the proprietary coating of nanofibers to yield the market's most superior filtration and cleanability with an efficiency of 99.995% on 0.5 microns and larger by weight.

XFC — XFC - eXtreme Flame Retardant Carbon Impregnated
Blended media impregnated with carbon for static dissipation, chemically treated with a flame retardant, and coated with nanofibers for superior filtration and cleanability.

Efficiency for eXtreme Media:
ASHRAE 52.2: MERV 15 Filter Class M, in accordance to independent test to DIN EN 60335-2-69:2016

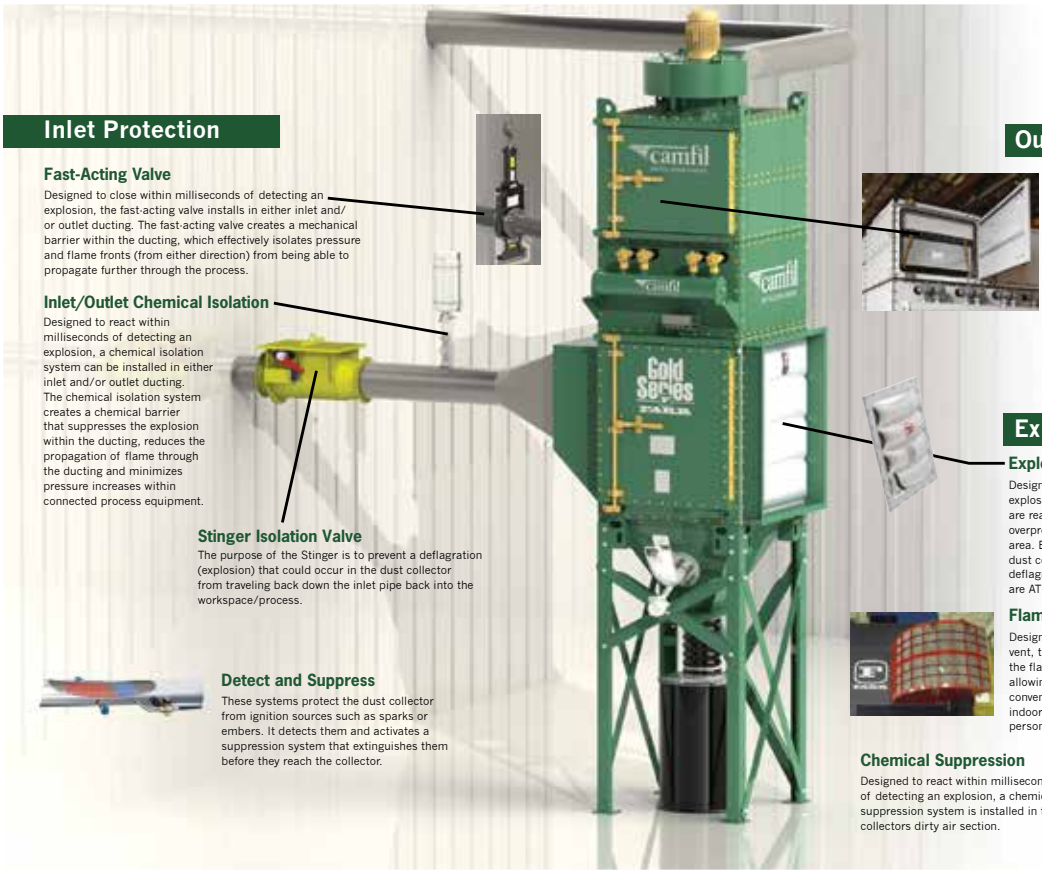


Camfil APC's Filter Media



Camfil APC's Filter Media with eXtreme coating

Explosion Protection Solutions



Inlet Protection

Fast-Acting Valve

Designed to close within milliseconds of detecting an explosion, the fast-acting valve installs in either inlet and/or outlet ducting. The fast-acting valve creates a mechanical barrier within the ducting, which effectively isolates pressure and flame fronts (from either direction) from being able to propagate further through the process.

Inlet/Outlet Chemical Isolation

Designed to react within milliseconds of detecting an explosion, a chemical isolation system can be installed in either inlet and/or outlet ducting. The chemical isolation system creates a chemical barrier that suppresses the explosion within the ducting, reduces the propagation of flame through the ducting and minimizes pressure increases within connected process equipment.

Stinger Isolation Valve

The purpose of the Stinger is to prevent a deflagration (explosion) that could occur in the dust collector from traveling back down the inlet pipe back into the workspace/process.

Detect and Suppress

These systems protect the dust collector from ignition sources such as sparks or embers. It detects them and activates a suppression system that extinguishes them before they reach the collector.

Outlet Protection

Integrated Safety Monitoring Filter

The iSMF has been proven to isolate the downstream equipment from the progression of a flame front during an explosion. The Farr Gold Series® dust collector with an integrated Safety Monitoring Filter allows you to recirculate exhaust air back into the work space when your dust is explosive. The key advantage of this device is that it prevents the transmission of explosive dust (fuel) from the collector.

Explosion Venting

Explosion Vent

Designed to be the "weak" link of the vessel, explosion vents open when predetermined pressures are reached inside the dust collector allowing the overpressure and flame fronts to exit to a safe area. Explosion vents minimize damage to the dust collector caused by overpressure created by a deflagration. Camfil APC's standard explosion vents are ATEX certified and NFPA compliant.

Flameless Vent

Designed to install over a standard explosion vent, the "FlamQuench SQ" extinguishes the flame front exiting the vented area not allowing it to exit the device. This allows conventional venting to be accomplished indoors where it could otherwise endanger personnel and/or ignite secondary explosions.

Chemical Suppression

Designed to react within milliseconds of detecting an explosion, a chemical suppression system is installed in the collectors dirty air section.

The chemical suppression system prevents expanding a deflagration by releasing a chemical agent.

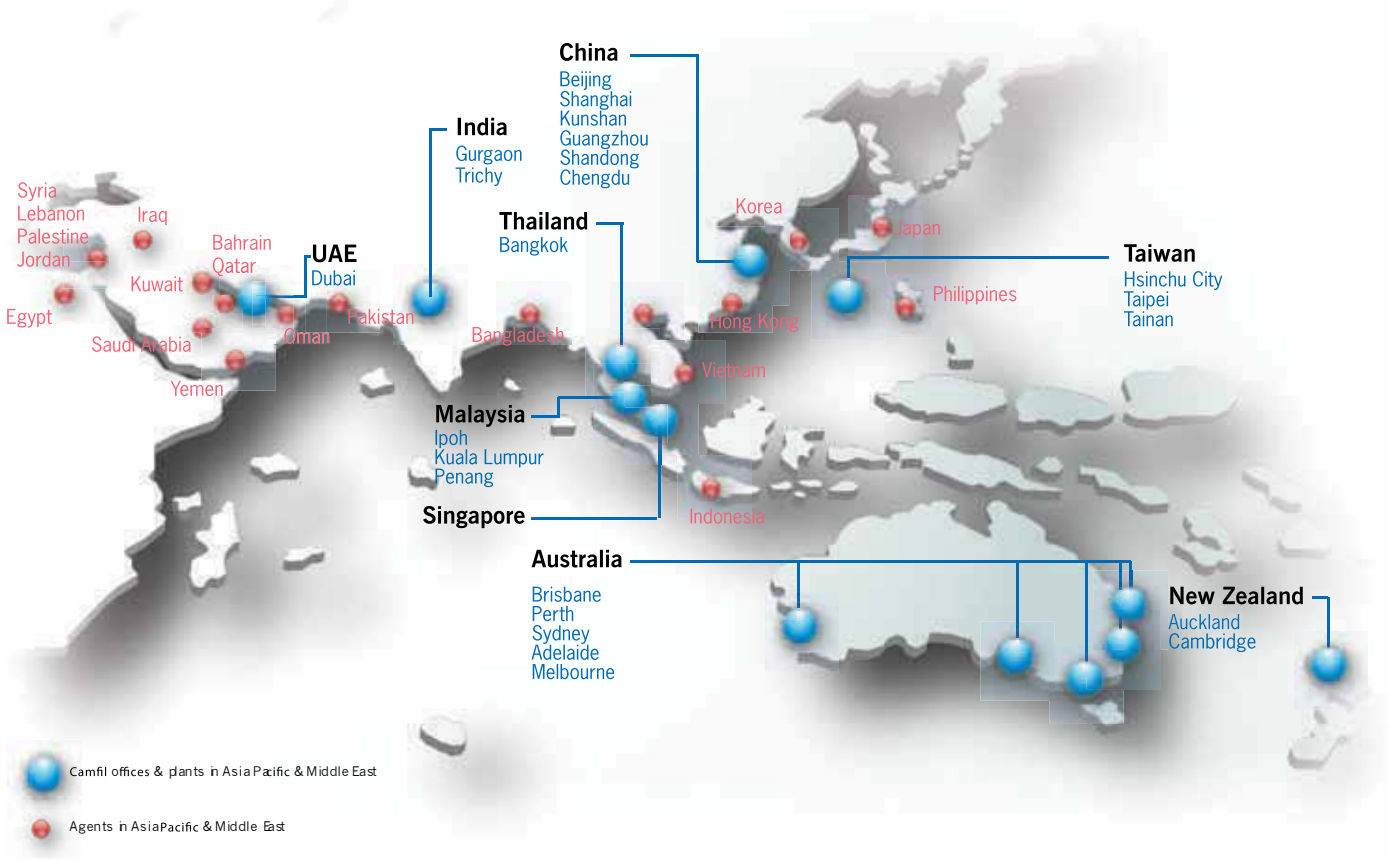
OPTIONAL SAFETY FEATURES

Blast Plate

A Blast Plate is a deflector mounted directly in front the explosion relief area. The deflector is designed to restrict the flame length ejected from the collector in the event of an explosion. For vessels that are not greater than 706 cubic feet, the deflector is designed to reduce the axial (front-centerline) safe distance by 50 percent.

Vertical Plenum

A plenum that is bolted to the dirty air section of the collector. The explosion vent is mounted to the top of the plenum which effectively transitions the pressure and flame fronts from a horizontal to a vertical configuration. A vertical configuration make it possible to explosion vent through a roof and/or direct the pressure and flame fronts to a safe location as outlined in NFPA standards. In most cases, ducting and weather hoods are required to be compliant with NFPA standards to protect the explosion vents from the elements and other debris. Access panels are provided on the ducting so that easy inspection and/or replacement of the explosion vent is made possible without removing the ducting and weather hood.



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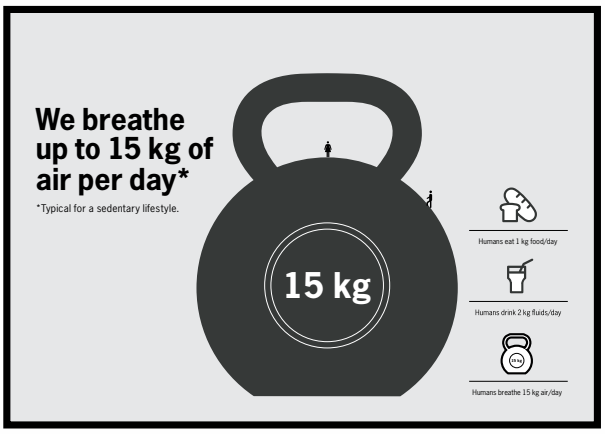

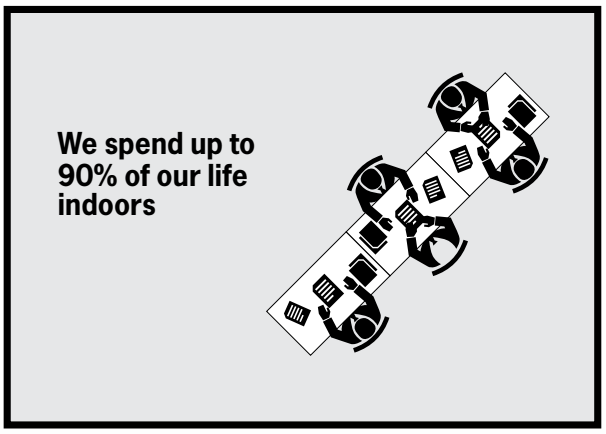

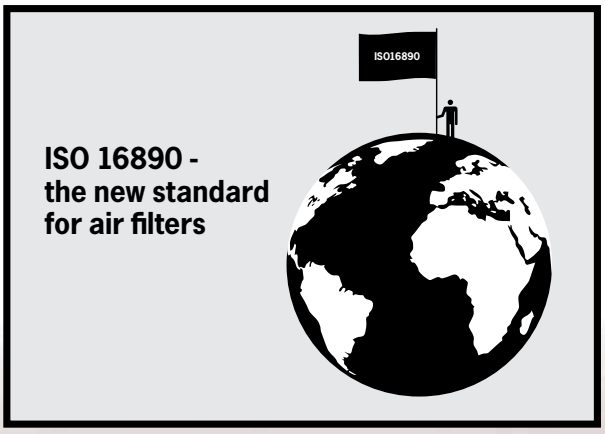

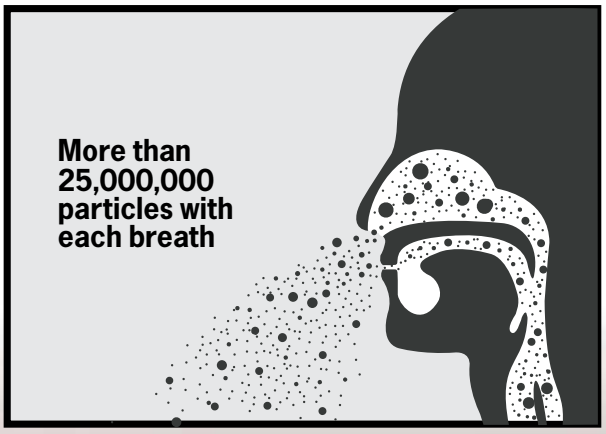

Take a Breath

Breathing air is essential for life.
It is the first thing we do when
we are born.

camfil

CAMFIL – A GLOBAL LEADER IN AIR FILTERS AND CLEAN AIR SOLUTIONS.

For more than half a century, Camfil has been helping people breathe cleaner air. As a leading manufacturer of premium clean air solutions, we provide commercial and industrial systems for air filtration and air pollution control that improve worker and equipment productivity, minimize energy use, and benefit human health and the environment. We firmly believe that the best solutions for our customers are the best solutions for our planet, too. That's why every step of the way – from design to delivery and across the product life cycle – we consider the impact of what we do on people and on the world around us. Through a fresh approach to problem-solving, innovative design, precise process control and a strong customer focus we aim to conserve more, use less and find better ways – so we can all breathe easier.

The Camfil Group is headquartered in Stockholm, Sweden, and has 30 manufacturing sites, six R&D centres, local sales offices in 35+ countries, and about 5,600 employees and growing. We proudly serve and support customers in a wide variety of industries and in communities across the world. To discover how Camfil can help you to protect people, processes and the environment.

www.camfil.com

For further information please contact your nearest Camfil office.