



VALITECH

Valitech was established in 2004. With more than 10 years of experience in the **Air Filter Solutions** in order to meet customers' satisfaction as well as quality requirements, we have been intensely focused on providing customers with air filtration product in Heating, Ventilation and Air Conditioning (HVAC) markets which specially designed to operate in wide range of industries such as pharmaceutical, hospital, food & beverage, cosmetic, laboratory, electronics, automotive and high building.

Our filtration medias are assuredly world class standard from Europe and USA which are not only versatile, but also offer the highest performance of materials in HVAC systems.

Our product range covers numerous industrial benchmark filters which are complied with the European standard EN779:2012 and EN1822:2009.

Furthermore we also provide solutions for our customer such as filter installation, validation and waste disposal as **ONE STOP SERVICE**.

Valitech has been quality certified to the ISO 9001:2008 Quality Management Certification by TUV NORD which is the internationally recognized standard for a quality management system.



● Advance production line

With the development of the manufacturing and the continuous improvement of the product quality requirements, advance glass fiber folding machine give us high production efficiency and can be set the depth and distance of the media according to customer demand; all HEPA Filters are used the production of endless foam sealing machines to airproof, Good sealing surface, more durable, not easy to leak.



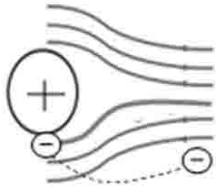
● High standard testing machine

All HEPA filter is used the DOS smoke plumes leak detector to scan and ensure the HEPA filter won't leak. By laser scanning counting efficiency: 99.95-99.999995%, we provide the scan test report one by one.

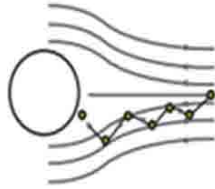


Basic Principle of Filtration

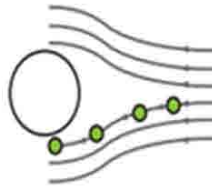
Electrostatic Attraction



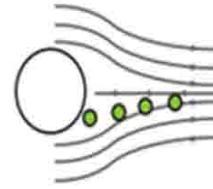
Inertia Impaction



Interception



Brownian



Sieving



There are five different ways of collection mechanisms. The filter class, the particle size and the filter construction jointly determine the magnitude of these effects.

Air filters may apply:

- Sieving (Straining)
- Inertial Impaction
- Interception
- Brownian Diffusion
- Electrostatic attraction

These particle capturing, or collection mechanisms is described as follows;

Sieving (Straining)

The sieve effect is one most commonly applied in air filters. The principle of this one is very simple; the particle is larger than the gap between the media fiber and therefore gets trapped. It is related to size of particle, media density, and also media spacing.

Inertial Impaction

This filter principle is applied if the particles have substantial mass or high concentration of coarse particle. The particles arrive at high velocity and tends to remain at that velocity owing to its mass. The particle then collides with the media fiber, instead of being deflected with the airflow.

Interception

This mechanism is responsible for collecting larger particles. As air stream passing through, particles pass closely to filter fiber. Once the particles have been intercepted, they remain stuck with the media fiber.

Brownian Diffusion

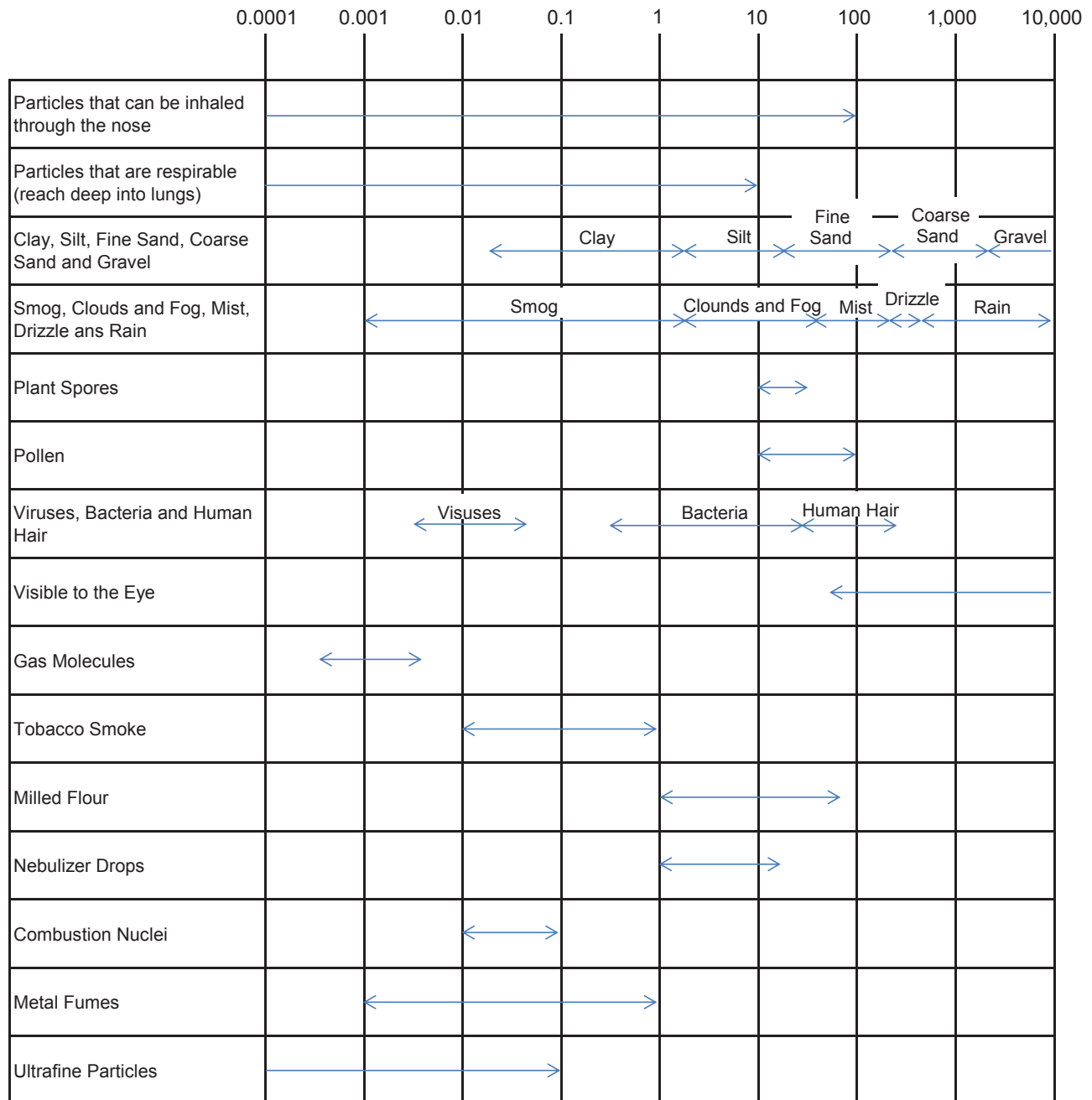
This mechanism is responsible for collecting small particles which particularly often pursue an irregular path. This phenomenon is referred to as Brownian motion causing contacting of particles with fiber. The path that the particles follow may deviate from that of the airflow. Brownian motion increases the chances of the particles colliding with the media fiber. The more the surface area of filter media, the greater the chance of particles trapping.

Electrostatic attraction

This effect plays minor role in mechanical filtration. The process of which oppositely charged particles are attracted to a charged fiber. This force will be eliminated as airborne particles capturing on media fiber acting as an insulator to other upcoming charges.

Particle Size of Dust

Particle Size Distribution Graph in Micrometers (μm)



Approximate Size Ranges of Different Airborne Particles

Particle Type	Minimum Size (μm)	Maximum Size (μm)
Particles that can be inhaled	<100	100
Particles that are respirable (can reach the deep part of the lungs)	<10	10
Clay	0.02	2
Silt	2	20
Fine sand	20	200
Coarse Sand	200	2,000
Gravel	2,000	>2,000
Smog	0.001	2
Clouds/ Fog	2	70
Mist	70	200
Drizzle	200	500
Rain	500	10,000
Plant Spores	10	30
Pollen	10	100
Viruses	0.003	0.05
Bacteria	0.3	30
Human Hair	30	120
Visible to the Eye	50	>50
Gas Molecules	0.000	0.005
Tobacco Smoke	0.01	1
Milled Flour	1	80
Nebulizer Drops	1	20
Combustion Nuclei	0.01	0.1
Metal Fumes	0.001	1
Ultrafine Particles	<0.1	0.1

*Source: Johnson D, Vincent J. Sampling and sizing of airborne particles. In: DeNardi SR, ed. 2003. The Occupational Environment: Its Evaluation, Control, and Management. Fairfax, VA: American Industrial Hygiene Association.

Standard Classification

Category	Standard		EN 779:2012			EN 1822:2009	Typical Controlled Contaminant	Application
	ASHRAE 52.2	EN	Average Arrestance of Synthetic Dust (%)	Average Eff. at 0.4 μm (%)	Minimum Eff. at 0.4 μm (%)	Average Eff. at MPPS (%)		
	Filter Class							
Pre Filter	MERV1	G1	$50 \leq Am \leq 65$	-	-	-	Particle size bigger than 10.0 μm -Pollen -Dust mites -Sanding dust -Spray paint dust -Textile fiber	Gross filter, Domestic and commercial
	MERV2	G2	$65 \leq Am \leq 80$	-	-	-		
	MERV3							
	MERV4							
	MERV5	G3	$80 \leq Am \leq 90$	-	-	-	Particle size within 3.0- 10.0 μm -Mold -Spores -Hair spray -Cement dust -Powdered milk	Commercial, Industrial, paint shop
	MERV6							
	MERV7	G4	$90 \leq Am$	-	-	-		
	MERV8							
Medium Filter	MERV9	M5	-	$40 \leq Em \leq 60$	-	-	Particle size within 1.0- 3.0 μm -Lead dust -Milled flour -Coal dust -Nebulizer drop -Welding fumes	IAQ concerned Industrial, Medical
	MERV10							
	MERV11	M6	-	$60 \leq Em \leq 80$	-	-		
	MERV12							
	MERV13	F7	-	$80 \leq Em \leq 90$	35	-	Particle size within 0.3- 1.0 μm -Bacteria -Droplet nuclei (sneeze) -insecticide dust -Cooking oil -Most smoke -Copier toner -Most face powder -Most paint pigment	IAQ concerned Industrial, Pharmaceutical, Hospital, Food and beverage
	MERV14	F8	-	$90 \leq Em \leq 95$	55	-		
	MERV15	F9	-	$95 \leq Em$	70	-		
	MERV16							
EPA Filter	E10	-	-	-	-	≥ 85	Particle size smaller than 0.3 μm -Carbon dust -Sea salt -All combustion smoke -Radon progeny	All type of clean room - IAQ concerned Industrial, Pharmaceutical, Hospital, Laboratory, Food and beverage, Electronics
	E11	-	-	-	-	≥ 95		
	E12	-	-	-	-	-		
HEPA Filter	H13	-	-	-	-	≥ 99.95		
	H14	-	-	-	-	≥ 99.995		
ULPA Filter	U15	-	-	-	-	≥ 99.9995	Particle size smaller than 0.12 μm	
	U16	-	-	-	-	≥ 99.99995		
	U17	-	-	-	-	≥ 99.999995		

Industrial segments



Automotive



Food & Beverage



Pharmaceutical



Consumer Product



Commercial and office buildings



Plastic Manufacturing
(injection molding)



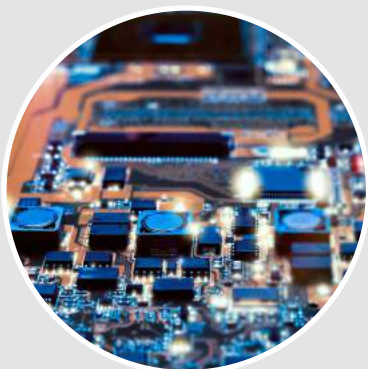
Cosmetics



Hospital



Power plant



Electronics



Laboratory



Oil and Gas

Pre-Filter, Class G4

Roll-L (Roll Filter)

Highlights

- High media density
- High dust holding capacity
- High air permeability
- Progressive increase of fiber density toward downstream side which effectively extends lifetime
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

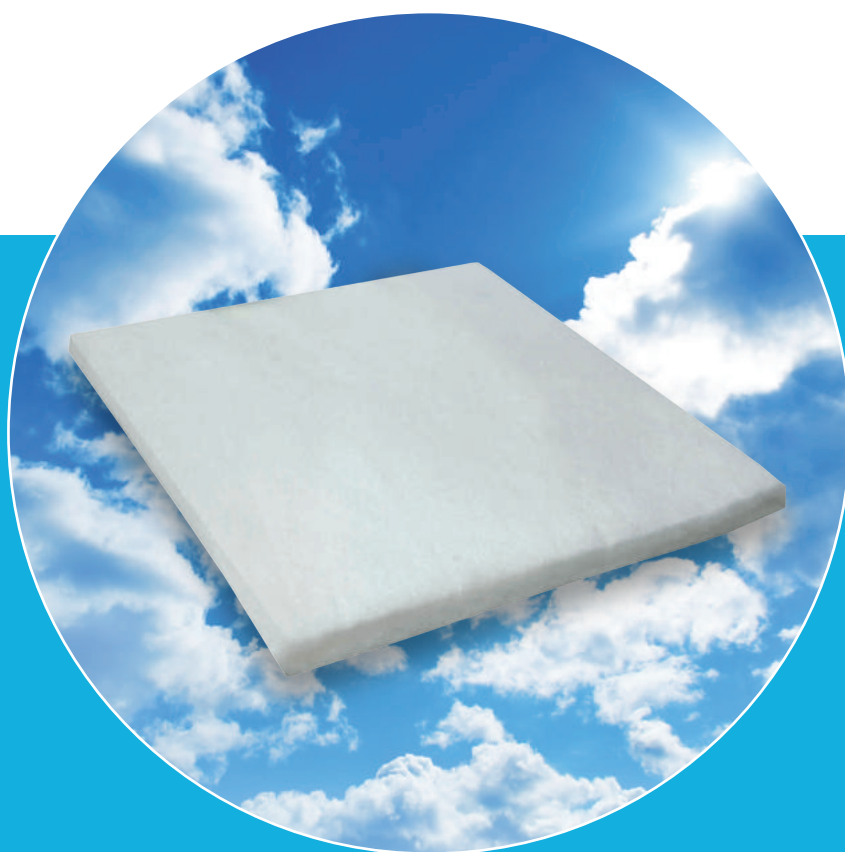
Code	Size (WxL) (M)	Thickness (mm)	Backing	Media	Class	Arrestance(%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
X4G-RWS-0220-05M	2x20	5	Yes	Synthetic fiber	G4	≥90	3400	50
X4G-RWS-0220-10M	2x20	10	Yes	Synthetic fiber	G4	≥90	3400	50
X4G-RWS-0220-15M	2x20	15	Yes	Synthetic fiber	G4	≥90	3400	50
X4G-RWS-0220-20M	2x20	20	Yes	Synthetic fiber	G4	≥90	3400	50

* Recommended final pressure drop at 250 Pa

* Special sizes are available on requested

* Other kinds of media are available on requested

* All performance data is based on EN779:2012



Pre-Filter, Class G4 **Cut Roll - L** **(Cut Roll Filter)** Highlights

- High media density
- High dust holding capacity
- High air permeability
- Progressive increase of fiber density toward downstream side which effectively extends lifetime
- Available to apply for Panel Filter (Pleat type)
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (HxW) (mm)	Thickness (mm)	Backing	Media	Class	Arrestance(%) according to EN 779	Applied for Panel Filter – Pleat type size (HxW mm)	Pressure drop (Pa)
X4C-NSS-C000-35N	600x1000	5	Yes	Synthetic fiber	G4	≥90	592x592	50
X4C-NSS-C000-36N	300x1000	5	Yes	Synthetic fiber	G4	≥90	287x592	50
X4C-NSS-C000-07N	600x1000	10	Yes	Synthetic fiber	G4	≥90	592x592	50
X4C-NSS-C000-08N	300x1000	10	Yes	Synthetic fiber	G4	≥90	287x592	50
X4C-NSS-C000-12N	600x1000	15	Yes	Synthetic fiber	G4	≥90	592x592	50
X4C-NSS-C000-13N	300x1000	15	Yes	Synthetic fiber	G4	≥90	287x592	50
X4C-NSS-C000-21N	600x1000	20	Yes	Synthetic fiber	G4	≥90	592x592	50
X4C-NSS-C000-22N	300x1000	20	Yes	Synthetic fiber	G4	≥90	287x592	50

* Recommended final pressure drop at 250 Pa
 * Special cut sizes are available on requested
 * Other kinds of media are available on requested
 * All performance data is based on EN779:2012

Pre-Filter, Class G4

X-Pleat (Panel Filter-Pleat Type) Highlights



- High dust holding capacity
- High flow rate and efficiency
- Interchangeable media
- Various pleat amount
- Progressive increase of fiber density toward downstream side which effectively extends lifetime
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Arrestance(%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
X4G-EPS-2323-02P	24x24x2	592x592x45	Extruded aluminum	Synthetic fiber	G4	≥90	3400	50
X4G-EPS-2023-02P	20x24x2	495x592x45	Extruded aluminum	Synthetic fiber	G4	≥90	2850	50
X4G-EPS-2020-02P	20x20x2	495x495x45	Extruded aluminum	Synthetic fiber	G4	≥90	2500	50
X4G-EPS-1823-02P	18x24x2	457x592x45	Extruded aluminum	Synthetic fiber	G4	≥90	2600	50
X4G-EPS-1123-02P	12x24x2	287x592x45	Extruded aluminum	Synthetic fiber	G4	≥90	1700	50

* Recommended final pressure drop at 250 Pa

* Special sizes are available on requested

* Other Media types are available on requested

* All performance data is based on EN779:2012

Pre-Filter, Class G4 X-Flat (Panel Filter-Flat Type) Highlights



- High dust holding capacity
- High flow rate and efficiency
- Interchangeable media
- Various pleat amount
- Progressive increase of fiber density toward downstream side which effectively extends lifetime
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Arrestance(%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
X4F-EPS-2323-01N	24x24x1	592x592x25	Extruded aluminum	Synthetic fiber	G4	≥90	3400	50
X4F-EPS-2023-01N	20x24x1	495x592x25	Extruded aluminum	Synthetic fiber	G4	≥90	2100	50
X4F-EPS-2020-01T	20x20x1	495x495x22	Extruded aluminum	Synthetic fiber	G4	≥90	2500	50
X4F-EPS-1823-01N	18x24x1	457x592x25	Extruded aluminum	Synthetic fiber	G4	≥90	1940	50
X4F-EPS-C000-51N	12x24x1	287x594x25	Extruded aluminum	Synthetic fiber	G4	≥90	1700	50

- * Recommended final pressure drop at 250 Pa
- * Special sizes are available on requested
- * Other Media types are available on requested
- * All performance data is based on EN779:2012

Pre-Filter, Class G4

Eco-Pleat (Cardboard Filter)

Highlights

- Moisture resistance natural wood pulp frame
- Low operating cost
- Long service life
- Various pleat amount
- Light weight
- Fast and easy installation
- Continuous operating temperature at 80 °C
- 80% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Arrestance(%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
X4G-CSC-2323-02P	24x24x2	594x594x45	Card-board	Cotton with Synthetic/15 pleats	G4	≥90	3400	50
X4G-CSC-2023-02P	20x24x2	495x594x45	Card-board	Cotton with Synthetic	G4	≥90	2850	50
X4G-CSC-1123-02P	12x24x2	287x594x45	Card-board	Cotton with Synthetic/8 pleats	G4	≥90	1700	50
X4G-CSC-2323-04P	24x24x4	594x594x95	Card-board	Cotton with Synthetic/15 pleats	G4	≥90	3400	50
X4P-CSC-C000-08N	20x24x4	495x594x95	Card-board	Cotton with Synthetic	G4	≥90	2850	50
X4G-CSC-1123-04P	12x24x4	287x594x95	Card-board	Cotton with Synthetic/8 pleats	G4	≥90	1700	50

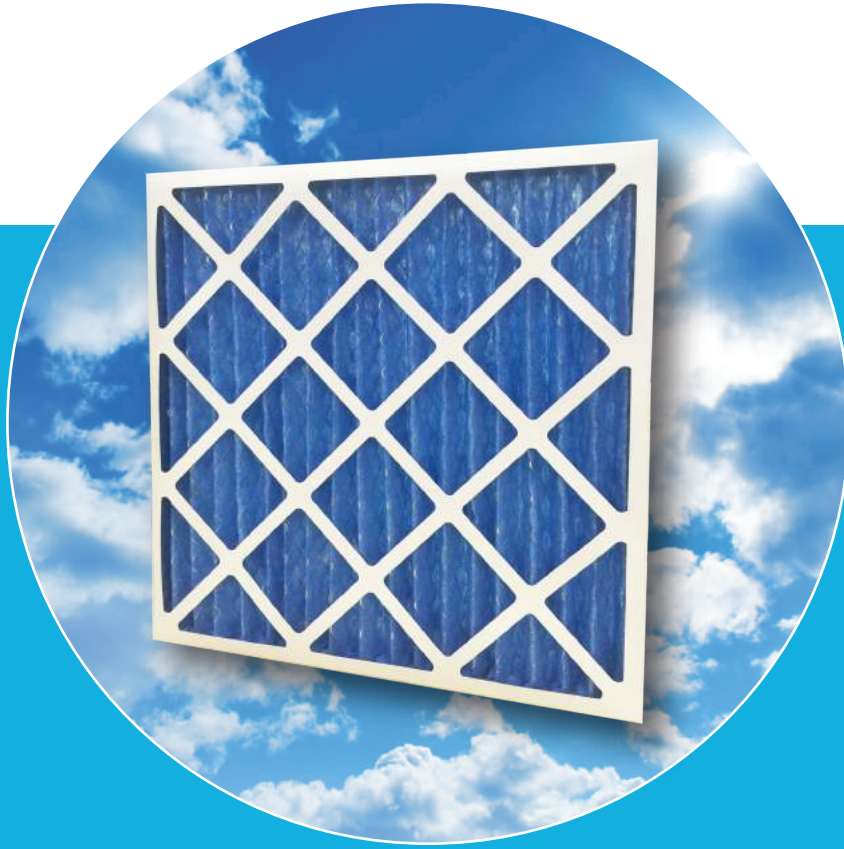
* Recommended final pressure drop at 250 Pa

* Special sizes are available on requested

* All performance data is based on EN779:2012

Pre-Filter, Class G4

Eco-Pleat (Cardboard Filter) Highlights



- Moisture resistance natural wood pulp frame
- Low operating cost
- Long service life
- Various pleat amount
- Light weight
- Fast and easy installation
- Continuous operating temperature at 80 °C
- 80% RH

Materials and Operating Conditions

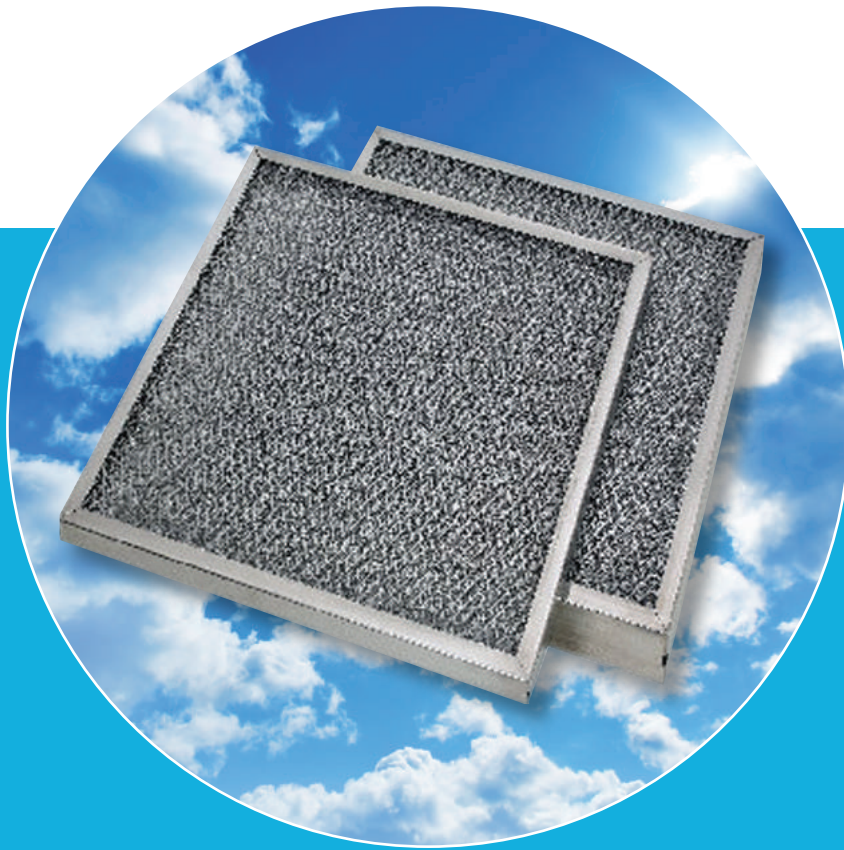
Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Arrestance(%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
X4G-CHC-2323-02P (High Capacity)	24x24x2	594x594x45	Card-board	Cotton with Synthetic/28 pleats	G4	≥90	3400	57
X4G-CHC-2023-02P (High Capacity)	20x24x2	495x594x45	Card-board	Cotton with Synthetic/24 pleats	G4	≥90	2850	57
X4G-CHC-1123-02P (High Capacity)	12x24x2	287x594x45	Card-board	Cotton with Synthetic/18 pleats	G4	≥90	1700	57
X4G-CHC-2323-04P (High Capacity)	24x24x4	594x594x95	Card-board	Cotton with Synthetic	G4	≥90	3400	57
X4G-CHC-1123-04P (High Capacity)	12x24x4	287x594x95	Card-board	Cotton with Synthetic	G4	≥90	1700	57

- * Recommended final pressure drop at 250 Pa
- * Special sizes are available on requested
- * All performance data is based on EN779:2012

Pre-Filter, Class G4

X-Alu (Aluminum Filter)

Highlights



- Washable either by dishwasher or pressure washer
- Media is made from Aluminum, Galvanized Steel or Stainless Steel mesh with a special pattern to meet requirement of filtration
- Long lifespan
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Arrestance(%) according to EN 779	Airflow (CMH)	Pressure drop ± 10 (Pa)
X4F-EPA-C000-02N	24x24x2	594x594x45	Extruded aluminum	Aluminum Mesh	G4	≥ 90	3400	45
X4F-EPA-C000-09N	20x24x2	495x592x45	Extruded aluminum	Aluminum Mesh	G4	≥ 90	2850	45
X4F-EPA-C000-01N	20x20x2	495x495x45	Extruded aluminum	Aluminum Mesh	G4	≥ 90	2500	45
X4G-EPA-1123-02T	12x24x2	287x592x45	Extruded aluminum	Aluminum Mesh	G4	≥ 90	1700	45
X4G-APA-2323-01T	24x24x1	592x592x25	Aluminum	Aluminum Mesh	G4	≥ 90	3400	45
X4F-APA-C000-47N	20x24x1	495x592x25	Aluminum	Aluminum Mesh	G4	≥ 90	2850	45
X4F-APA-C000-48N	20x20x1	495x495x25	Aluminum	Aluminum Mesh	G4	≥ 90	2500	45
X4G-APA-1123-01T	12x24x1	287x592x25	Aluminum	Aluminum Mesh	G4	≥ 90	1700	45

* Recommended final pressure drop at 250 Pa

* Special sizes are available on requested

* Other Media types are available on requested

* All performance data is based on EN779:2012

Pre-Filter, Class G4

Nylon (Nylon Filter) Highlights



- Washable either by dishwasher or pressure washer
- Easy to maintenance
- High acid and alkali resistance
- High airflow, also applied as the pre-filtration
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Arrestance(%) according to EN 779	Airflow (CMH)	Pressure drop ± 10 (Pa)
X4F-RPN-C000-19N	24x48	595x1200	Black rod steel 4 mm	Nylon	G4	≥ 90	6400	40
X4G-SHN-2323-04M	24x24	595x595	Black rod steel 4 mm	Nylon	G4	≥ 90	3400	40
X4G-SHN-1123-04M	12x24	287x595	Black rod steel 4 mm	Nylon	G4	≥ 90	1700	40

*Recommended final pressure drop at 250 Pa

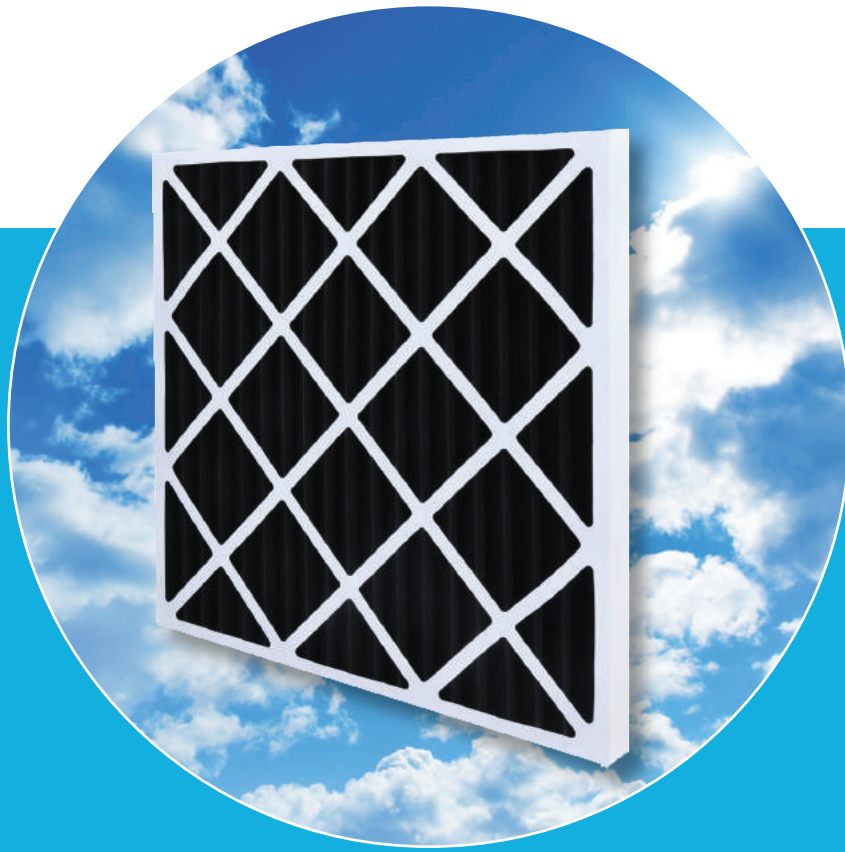
*Special sizes are available on requested

*All performance data is based on EN779:2012

Carbon Filter

Black-Pleat (Carbon Filter)

Highlights



- Air Contaminants and Undesirable Odors Removal
- Suitable for Various Industrials e.g., Clean Room, Shopping Mall, Office, Stadium
- Fast and Easy Installation
- Various Pleat Amount
- Continuous operating temperature at 80 °C
- 80% RH

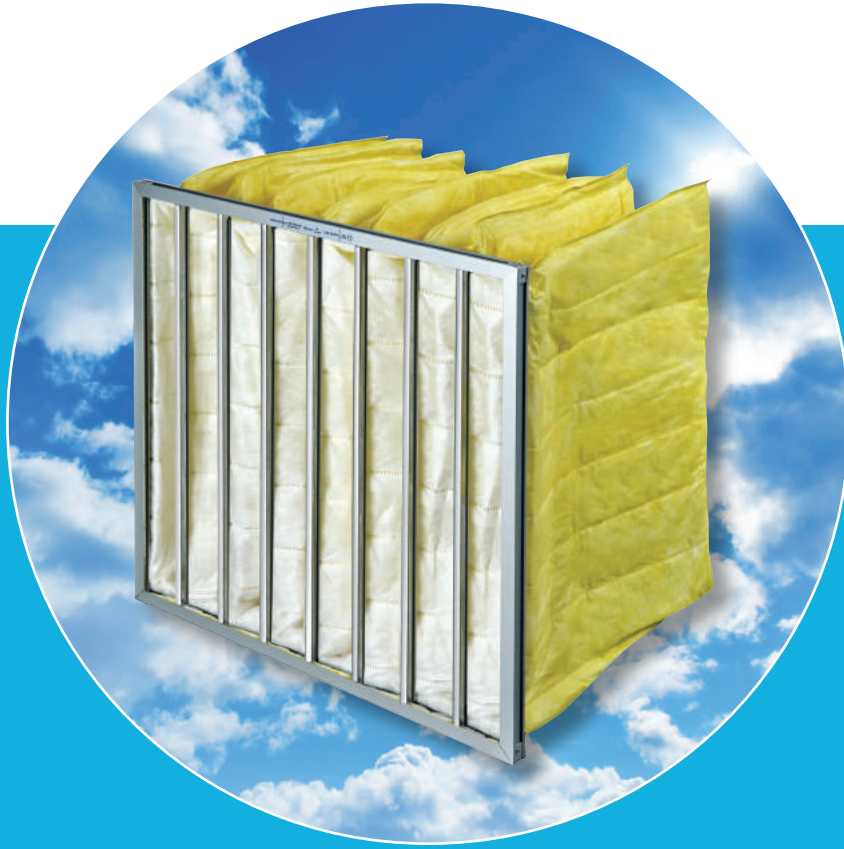
Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Odor removal rate (%)	Airflow (CMH)	Pressure drop ±10(Pa)
X4P-CPB-C000-01N	24x24x4	592x592x95	Cardboard	Synthetic Loaded with Activated Carbon	70	3400	80
X4P-CPB-C000-02N	12x24x4	287X592X95	Cardboard	Synthetic Loaded with Activated Carbon	70	1700	80
X4G-CCC-2323-02P	24x24x2	594x594x45	Cardboard	Synthetic Loaded with Activated Carbon	70	3400	50
X4G-CCC-1123-02P	12x24x2	287X594X45	Cardboard	Synthetic Loaded with Activated Carbon	70	1700	50

- * Recommended final pressure drop at 250 Pa
- * Special sizes are available on requested
- * Other Frame types are available on requested

Medium-Filter, Class M6-F8

Big-Bag (Pocket Filter) Highlights



- Excellent durability
- Long life time
- High media area
- High airflow rate and low pressure drop
- Fast and easy installation
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6P-EPS-2323-12S	24x24x12	595x595x300	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	3400	65
Y6P-EPS-2023-12S	20x24x12	495x595x300	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	2850	65
Y6P-EPS-1123-12S	12x24x12	287x595x300	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	1700	65
Y7P-EPS-2323-12S	24x24x12	595x595x300	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	3400	80
Y7P-EPS-2023-12S	20x24x12	495x595x300	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	2850	80
Y7P-EPS-1123-12S	12x24x12	287x595x300	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	1700	80
Y8P-EPS-2323-12S	24x24x12	595x595x300	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	3400	140
Y8P-EPS-2023-12S	20x24x12	495x595x300	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	2850	140
Y8P-EPS-1123-12S	12x24x12	287x595x300	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	1700	140

* Recommended final pressure drop at 450 Pa

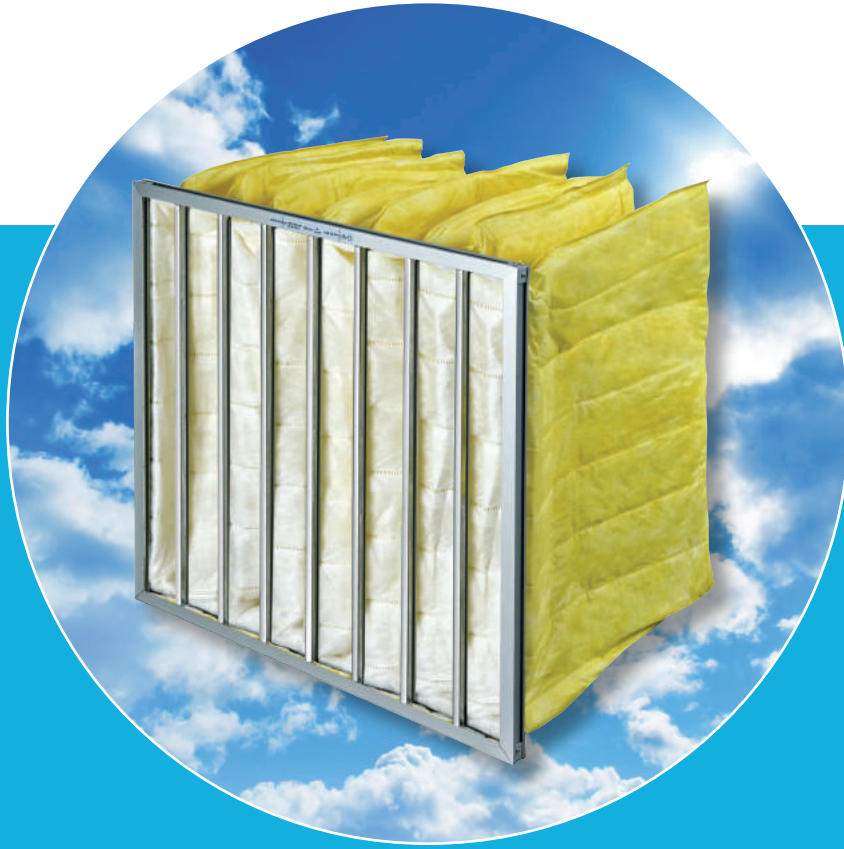
* Special sizes are available on requested

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F8

Big-Bag (Pocket Filter)

Highlights



- Excellent durability
- Long life time
- High media area
- High airflow rate and low pressure drop
- Fast and easy installation
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6P-EPS-2323-15S	24x24x15	595x595x381	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	3400	80
Y6P-EPS-2023-15S	20x24x15	495x595x381	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	2850	80
Y6P-EPS-1123-15S	12x24x15	287x595x381	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	1700	80
Y7P-EPS-2323-15S	24x24x15	595x595x381	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	3400	110
Y7P-EPS-2023-15S	20x24x15	495x595x381	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	2850	110
Y7P-EPS-1123-15S	12x24x15	287x595x381	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	1700	110
Y8P-EPS-2323-15S	24x24x15	595x595x381	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	3400	130
Y8P-EPS-2023-15S	20x24x15	495x595x381	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	2850	130
Y8P-EPS-1123-15S	12x24x15	287x595x381	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	1700	130

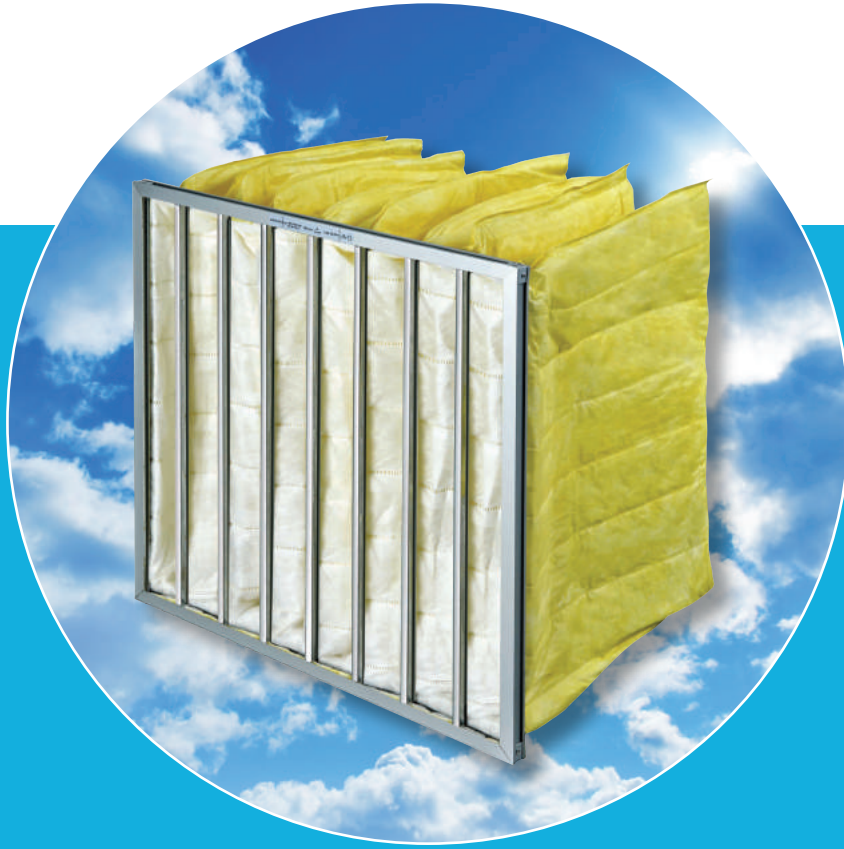
* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F8

Big-Bag (Pocket Filter) Highlights



- Excellent durability
- Long life time
- High media area
- High airflow rate and low pressure drop
- Fast and easy installation
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6P-EPS-2323-21S	24x24x21	595x595x534	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	3400	70
Y6P-EPS-2023-21S	20x24x21	495x595x534	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	2850	70
Y6P-EPS-1123-21S	12x24x21	287x595x534	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	1700	70
Y7P-EPS-2323-21S	24x24x21	595x595x534	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	3400	100
Y7P-EPS-2023-21S	20x24x21	495x595x534	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	2850	100
Y7P-EPS-1123-21S	12x24x21	287x595x534	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	1700	100
Y8P-EPS-2323-21S	24x24x21	595x595x534	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	3400	120
Y8P-EPS-2023-21S	20x24x21	495x595x534	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	2850	120
Y8P-EPS-1123-21S	12x24x21	287x595x534	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	1700	120

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F8

Big-Bag (Pocket Filter)

Highlights

- Excellent durability
- Long life time
- High media area
- High airflow rate and low pressure drop
- Fast and easy installation
- Continuous operating temperature at 80 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6P-EPS-2323-24S	24x24x24	595x595x600	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	3400	60
Y6P-EPS-2023-24S	20x24x24	495x595x600	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	2850	60
Y6P-EPS-1123-24S	12x24x24	287x595x600	Extruded Aluminum, Single header	Synthetic fiber	M6	60-80	1700	60
Y7P-EPS-2323-24S	24x24x24	595x595x600	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	3400	80
Y7P-EPS-2023-24S	20x24x24	495x595x600	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	2850	80
Y7P-EPS-1123-24S	12x24x24	287x595x600	Extruded Aluminum, Single header	Synthetic fiber	F7	80-90	1700	80
Y8P-EPS-2323-24S	24x24x24	595x595x600	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	3400	110
Y8P-EPS-2023-24S	20x24x24	495x595x600	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	2850	110
Y8P-EPS-1123-24S	12x24x24	287x595x600	Extruded Aluminum, Single header	Synthetic fiber	F8	90-95	1700	110

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F9

Galva-Pleat (Mini-Pleat)

Highlights

- Ultra-compact
- High efficiency
- Large filtration area resulting in low pressure drop
- Low operating cost
- Corrosive resistance
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6M-GPG-2323-04S	24x24x4	592x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	M6	60-80	3400	90
Y6M-GPG-2023-04S	20x24x4	495x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	M6	60-80	2850	90
Y6M-GPG-2020-04S	20x20x4	495x495x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	M6	60-80	2000	90
Y6M-GPG-1123-04S	12x24x4	287x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	M6	60-80	1700	90
Y7M-GPG-2323-04S	24x24x4	592x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F7	80-90	3400	120
Y7M-GPG-2023-04S	20x24x4	495x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F7	80-90	2850	120
Y7M-GPG-2020-04S	20x20x4	495x495x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F7	80-90	2000	120
Y7M-GPG-1123-04S	12x24x4	287x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F7	80-90	1700	120

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

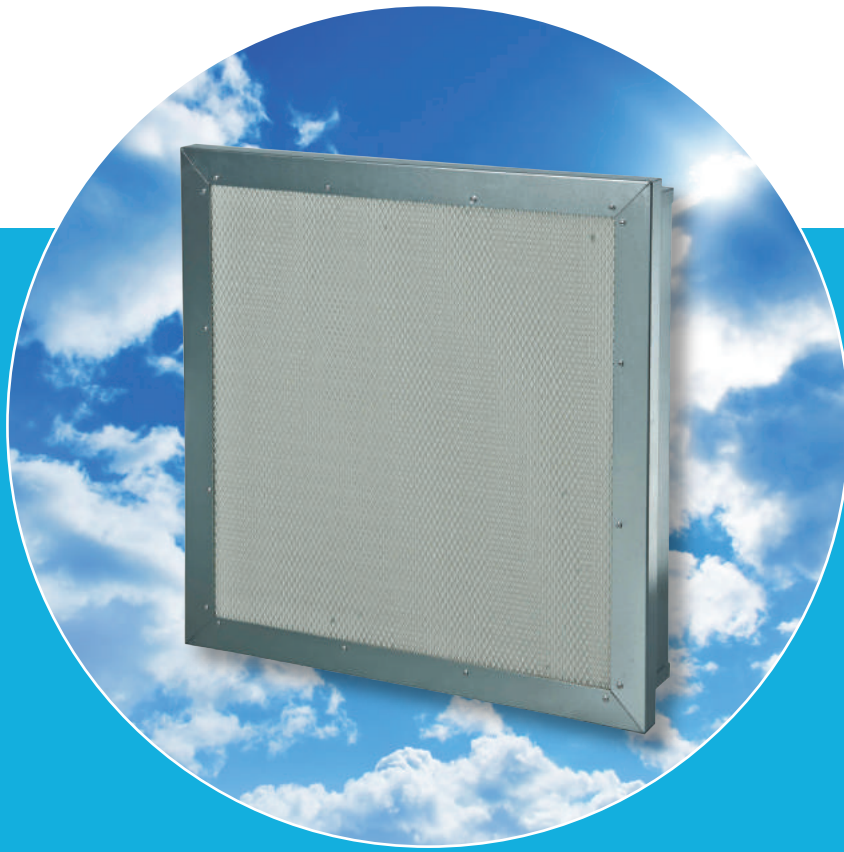
* Available in no header, single header and double header

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F9

Galva-Pleat (Mini-Pleat)

Highlights



- Ultra-compact
- High efficiency
- Large filtration area resulting in low pressure drop
- Low operating cost
- Corrosive resistance
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y8M-GPG-2323-04S	24x24x4	592x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F8	90-95	3400	150
Y8M-GPG-2023-04S	20x24x4	495x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F8	90-95	2850	150
Y8M-GPG-2020-04S	20x20x4	495x495x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F8	90-95	2000	150
Y8M-GPG-1123-04S	12x24x4	287x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F8	90-95	1700	150
Y9M-GPG-2323-04S	24x24x4	592x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F9	95-98	3400	120
Y9M-GPG-2023-04S	20x24x4	495x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F9	95-98	2850	120
Y9M-GPG-2020-04S	20x20x4	495x495x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F9	95-98	2000	120
Y9M-GPG-1123-04S	12x24x4	287x592x95	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F9	95-98	1700	120

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

* Available in no header, single header and double header

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F8

Carda-Pleat (Mini-Pleat)

Highlights



- Moisture resistance natural wood pulp frame
- High efficiency
- Large filtration area resulting in low pressure drop
- Low operating cost
- Light weight
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6M-CPG-2323-04N	24x24x4	594x594x95	Cardboard/No header	Glass fiber	M6	60-80	3400	90
Y6M-CPG-2023-04N	20x24x4	495x594x95	Cardboard/No header	Glass fiber	M6	60-80	2850	90
Y6M-CPG-2020-04N	20x20x4	495x495x95	Cardboard/No header	Glass fiber	M6	60-80	2500	90
Y6M-CPG-1123-04N	12x24x4	287x594x95	Cardboard/No header	Glass fiber	M6	60-80	1700	90
Y7M-CPG-2323-04N	24x24x4	594x594x95	Cardboard/No header	Glass fiber	F7	80-90	3400	120
Y7M-CPG-2023-04N	20x24x4	495x594x95	Cardboard/No header	Glass fiber	F7	80-90	2850	120

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F8

Carda-Pleat (Mini-Pleat)

Highlights



- Moisture resistance natural wood pulp frame
- High efficiency
- Large filtration area resulting in low pressure drop
- Low operating cost
- Light weight
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y7M-CPG-2020-04N	20x20x4	495x495x95	Cardboard/No header	Glass fiber	F7	80-90	2500	120
Y7M-CPG-1123-04N	12x24x4	287x594x95	Cardboard/No header	Glass fiber	F7	80-90	1700	120
Y8M-CPG-2323-04N	24x24x4	594x594x95	Cardboard/No header	Glass fiber	F8	90-95	3400	150
Y8M-CPG-2023-04N	20x24x4	495x594x95	Cardboard/No header	Glass fiber	F8	90-95	2850	150
Y8M-CPG-2020-04N	20x20x4	495x495x95	Cardboard/No header	Glass fiber	F8	90-95	2500	150
Y8M-CPG-1123-04N	12x24x4	287x594x95	Cardboard/No header	Glass fiber	F8	90-95	1700	150

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F9 Air-Box (Aluminum Separator) Highlights



- Robust design
- High dust holding capacity
- High efficiency
- Small range pleat distance
- Corrugated folds designed to prevent damage of filter media
- Continuous operating temperature at 80 °C
- 80% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6S-GPG-2323-12S	24x24x12	592x592x292	Galvanized Steel, Single header	Glass fiber	M6	60-80	3400	180
Y6S-GPG-2023-12S	20x24x12	495x592x292	Galvanized Steel, Single header	Glass fiber	M6	60-80	2800	180
Y6S-GPG-1123-12S	12x24x12	287x592x292	Galvanized Steel, Single header	Glass fiber	M6	60-80	1700	180
Y7S-GPG-2323-12S	24x24x12	592x592x292	Galvanized Steel, Single header	Glass fiber	F7	80-90	3400	100
Y7S-GPG-2023-12S	20x24x12	495x592x292	Galvanized Steel, Single header	Glass fiber	F7	80-90	2200	100
Y7S-GPG-1123-12S	12x24x12	287x592x292	Galvanized Steel, Single header	Glass fiber	F7	80-90	1200	100
Y8S-GPG-2323-12S	24x24x12	592x592x292	Galvanized Steel, Single header	Glass fiber	F8	90-95	3400	145
Y8S-GPG-2023-12S	20x24x12	495x592x292	Galvanized Steel, Single header	Glass fiber	F8	90-95	2800	145
Y8S-GPG-1123-12S	12x24x12	287x592x292	Galvanized Steel, Single header	Glass fiber	F8	90-95	1700	145

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

* Available in no header, single header and double header

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F9 Air-Box (Aluminum Separator) Highlights



- Robust design
- High dust holding capacity
- High efficiency
- Small range pleat distance
- Corrugated folds designed to prevent damage of filter media
- Continuous operating temperature at 80 °C
- 80% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y9S-GPG-2323-12S	242x4x12	592x592x292	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F9	95-98	3400	120
Y9S-GPG-2023-12S	20x24x12	495x592x292	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F9	95-98	2800	120
Y9S-GPG-1123-12S	12x24x12	287x592x292	Galvanized Steel, Single header, faceguard at air inlet/X-bar at air outlet	Glass fiber	F9	95-98	1700	120

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

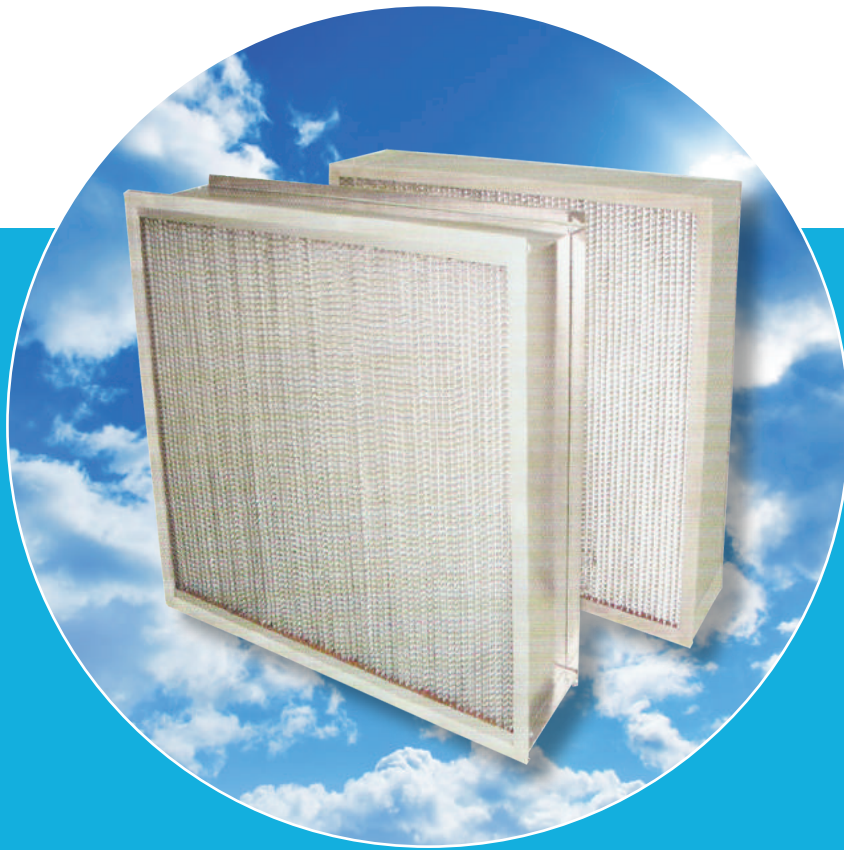
* Available in no header, single header and double header

* All performance data is based on EN779:2012

Medium-Filter, Class F8-F9

Tempo-Airbox (High Temp. Alu Sep.)

Highlights



- Robust design
- High temperature resistance up to 250 °C
- High efficiency
- Specific sealant to endure high temperature condition
- Corrugated folds designed to prevent damage of filter media
- Red Silicon sealant or white glue upon request
- 80% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)	Operating Temperature (°C)
Y8H-SPG-2323-12S	24x24x12	592x592x292	Stainless Steel, Single header, SUS304 face guard at both sides	Glass fiber	F8	90-95	3400	160	≤250
Y8H-SPG-1123-12S	12x24x12	287x592x292	Stainless Steel, Single header, SUS304 face guard at both sides	Glass fiber	F8	90-95	1700	160	≤250
Y8H-SBG-2424-12N	24x24x12	610x610x292	Stainless Steel, No header, SUS201 face guard at both sides	Glass fiber	F8	90-95	3400	150	≤250
Y8H-SPG-2424-06N	24x24x6	610x610x150	Stainless Steel/ No header / SUS304 face guard and red silicone gasket at both sides / red silicone sealant	Glass fiber	F8	90-95	900	100	≤250

* Recommendation for usage;

Normal Temperature (≤100 °C) : Aluminum frame

≥100°C-200°C : Galvanized steel frame

≥200°C-250°C : Stainless steel (SUS304) frame

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

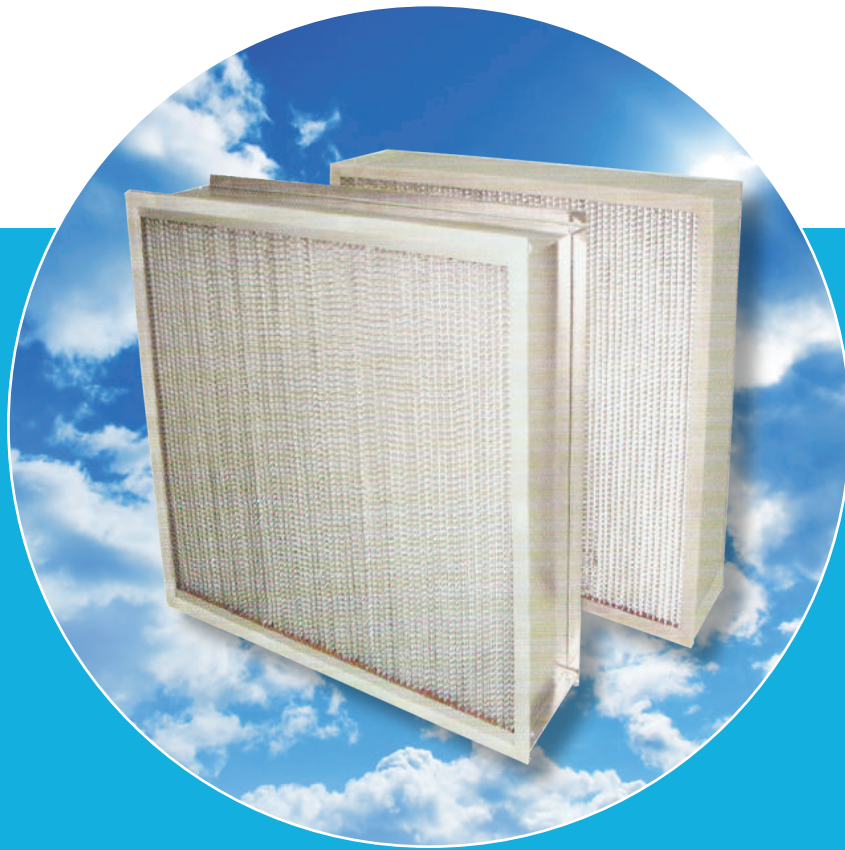
* Available in no header, single header and double header

* All performance data is based on EN779:2012

Medium-Filter, Class F8-F9

Tempo-Airbox (High Temp. Alu Sep.)

Highlights



- Robust design
- High temperature resistance up to 250 °C
- High efficiency
- Specific sealant to endure high temperature condition
- Corrugated folds designed to prevent damage of filter media
- Red Silicon sealant or white glue upon request
- 80% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)	Operating Temperature (°C)
Y8H-SPG-1224-06N	12x24x6	305x610x150	Stainless Steel/ No header / SUS304 face guard and red silicone gasket at both sides / red silicone sealant	Glass fiber	F8	90-95	400	100	≤250
Y8H-GPG-2424-12N	24x24x12	610x610x292	Galvanized Steel, No header, SUS201 face guard at both sides	Glass fiber	F8	90-95	3400	160	100-200
Y9H-GPG-2424-12N	24x24x12	610x610x292	Galvanized Steel, No header, SUS304 face guard at both sides	Glass fiber	F9	95-98	3400	280	100-200
Y9H-GPG-1123-12N	12x24x12	305x610x292	Galvanized Steel, No header, SUS304 face guard at both sides	Glass fiber	F9	95-98	1700	280	100-200

* Recommendation for usage;

Normal Temperature (≤100 °C) : Aluminum frame

≥100°C-200°C : Galvanized steel frame

≥200°C-250°C : Stainless steel (SUS304) frame

* Recommended final pressure drop at 450 Pa

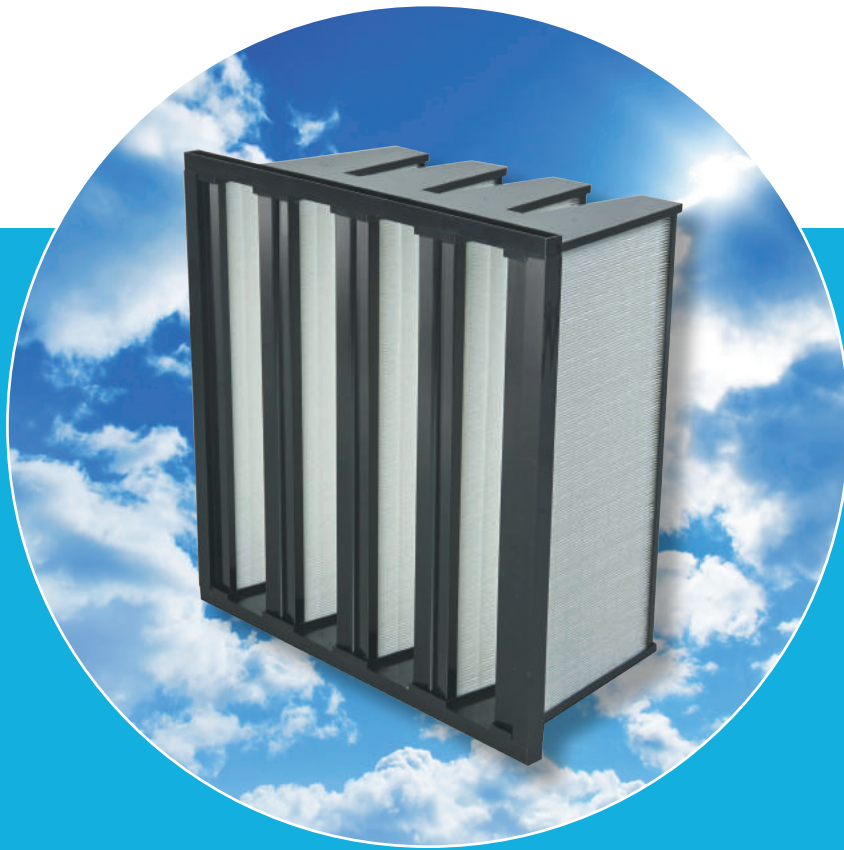
* Special sizes are available on requested

* Available in no header, single header and double header

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F9

4-Vevo (4V-Shape) Highlights



- Strong plastic frame and rigid construction
- High efficiency
- Ease of maintenance and long service life
- High air flow due to V-shape style
- Fast and easy Installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6V-PPG-2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Glass fiber	M6	60-80	3400	80
Y6V-PPG-2023-12S	20x24x12	495x592x292	ABS Plastic, Single header	Glass fiber	M6	60-80	2800	80
Y6V-PPG-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Glass fiber	M6	60-80	1700	80
Y7V-PPG 2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Glass fiber	F7	80-90	3400	85
Y7V-PPG-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Glass fiber	F7	80-90	2800	85
Y7V-PPG-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Glass fiber	F7	80-90	1700	85
Y8V-PPG-2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Glass fiber	F8	90-95	3400	105
Y8V-PPG-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Glass fiber	F8	90-95	2800	100
Y8V-PPG-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Glass fiber	F8	90-95	1700	105

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

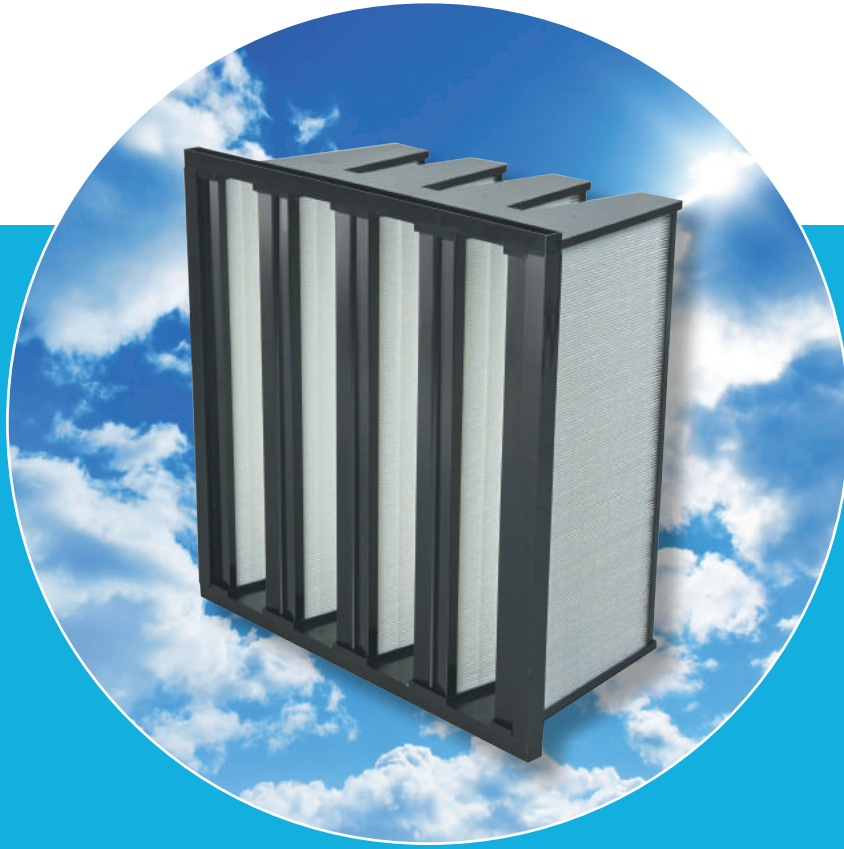
* Other materials are available on requested

* Available in no header and single header

* All performance data is based on EN779:2012

Medium-Filter, Class M6-F9

4-Vevo (4V-Shape) Highlights



- Strong plastic frame and rigid construction
- High efficiency
- Ease of maintenance and long service life
- High air flow due to V-shape style
- Fast and easy Installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y8V-PPG-C000-01S	24x24x12	592x592x292	ABS Plastic, Single header, w/o EPDM gasket	Glass fiber	F8	90-95	3400	105
Y8V-PPG-C000-02S	12x24x12	287x592x292	ABS Plastic, Single header, w/o EPDM gasket	Glass fiber	F8	90-95	1700	105
Y8V-PPS-2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Synthetic fiber	F8	90-95	3400	95
Y8V-PPS-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Synthetic fiber	F8	90-95	2800	95
Y8V-PPS-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Synthetic fiber	F8	90-95	1700	95
Y8V-PPS-C000-01S	24x24x12	592x592x292	ABS Plastic, Single header, w/o EPDM gasket	Synthetic fiber	F8	90-95	3400	95
Y8V-PPS-C000-02S	12x24x12	287x592x292	ABS Plastic, Single header, w/o EPDM gasket	Synthetic fiber	F8	90-95	1700	95
Y9V-PPG-2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Glass fiber	F9	95-98	3400	120
Y9V-PPG-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Synthetic fiber	F9	95-98	2800	120
Y9V-PPG-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Glass fiber	F9	95-98	1700	120

* Recommended final pressure drop at 450 Pa

* Other materials are available on requested

* All performance data is based on EN779:2012

* Special sizes are available on requested

* Available in no header and single header

Medium-Filter, Class M6-F9

2-Vevo (2V-Shape) Highlights



- Strong plastic frame and rigid construction
- High efficiency
- Ease of maintenance and long service life
- High air flow due to V-shape style
- Fast and easy Installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y6V-PSG-2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Glass fiber	M6	60-80	3400	80
Y6V-PSG-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Glass fiber	M6	60-80	2800	80
Y6V-PSG-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Glass fiber	M6	60-80	1700	80
Y7V-PSG 2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Glass fiber	F7	80-90	3400	85
Y7V-PSG-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Glass fiber	F7	80-90	2800	85
Y7V-PSG-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Glass fiber	F7	80-90	1700	85
Y8V-PSG-2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Glass fiber	F8	90-95	3400	120
Y8V-PSG-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Glass fiber	F8	90-95	2800	145
Y8V-PSG-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Glass fiber	F8	90-95	1700	150
Y8V-PSG-C000-01S	24x24x12	592x592x292	ABS Plastic, Single header, w/o EPDM gasket	Glass fiber	F8	90-95	3400	120

* Recommended final pressure drop at 450 Pa

* Other materials are available on requested

* All performance data is based on EN779:2012

* Special sizes are available on requested

* Available in no header and single header

Medium-Filter, Class M6-F9

2-Vevo (2V-Shape) Highlights



- Strong plastic frame and rigid construction
- High efficiency
- Ease of maintenance and long service life
- High air flow due to V-shape style
- Fast and easy Installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency (%) according to EN 779	Airflow (CMH)	Pressure drop (Pa)
Y8V-PSG-C000-02S	12x24x12	287x592x292	ABS Plastic, Single header, w/o EPDM gasket	Glass fiber	F8	90-95	1700	150
Y8V-PSS-2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Synthetic fiber	F8	90-95	3400	135
Y8V-PSS-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Synthetic fiber	F8	90-95	2800	135
Y8V-PSS-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Synthetic fiber	F8	90-95	1700	135
Y8V-PSS-C000-01S	24x24x12	592x592x292	ABS Plastic, Single header, w/o EPDM gasket	Synthetic fiber	F8	90-95	3400	135
Y8V-PSS-C000-02S	12x24x12	287x592x292	ABS Plastic, Single header, w/o EPDM gasket	Synthetic fiber	F8	90-95	1700	135
Y9V-PSG-2323-12S	24x24x12	592x592x292	ABS Plastic, Single header	Glass fiber	F9	95-98	3400	140
Y9V-PPG-2023-12S	20x24x12	490x592x292	ABS Plastic, Single header	Glass fiber	F9	95-98	2800	140
Y9V-PSG-1123-12S	12x24x12	287x592x292	ABS Plastic, Single header	Glass fiber	F9	95-98	1700	140

* Recommended final pressure drop at 450 Pa

* Special sizes are available on requested

* Other materials are available on requested

* Available in no header and single header

* All performance data is based on EN779:2012

High Efficiency Filter,
Class E11, H13, H14

Premo-Box4 (V-Bank) Highlights



- Large filtration area
- High air Flow due to V-shape style
- Long service life
- Endless gasket
- Fast and easy Installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	No. of V	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@ MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z1V-APG-2424-12N	4	24x24x12	610x610x292	Aluminum, No header	Glass fiber	E11	≥95	3400	250
Z1V-APG-1224-12N	4	12x24x12	305x610x292	Aluminum, No header	Glass fiber	E11	≥95	1700	250
Z3V-APG-2424-12D	4	24x24x12	610x610x292	Aluminum, No header	Glass fiber	H13	99.95	3400	250
Z3V-APG-1224-12D	4	12x24x12	305x610x292	Aluminum, No header	Glass fiber	H13	99.95	1700	250
Z4V-APG-2424-12F	4	24x24x12	610x610x292	Aluminum, No header	Glass fiber	H14	99.995	3400	250
Z4V-APG-1224-12F	4	12x24x12	305x610x292	Aluminum, No header	Glass fiber	H14	99.995	1700	250
Z4V-GPG-2424-12N	4	24x24x12	610x610x292	Galvanized Steel, No header	Glass fiber	H14	99.995	3400	250
Z4V-GPG-1224-12N	4	12x24x12	305x610x292	Galvanized Steel, No header	Glass fiber	H14	99.995	1700	250

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class E11, H13, H14

Premo-Box5 (V-Bank) Highlights



- Large filtration area
- High air Flow due to V-shape style
- Long service life
- Endless gasket
- Fast and easy Installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	No. of V	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@ MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z1V-AHG-2424-12N	5	24x24x12	610x610x292	Aluminum, No header	Glass fiber	E11	≥95	4250	220
Z1V-AHG-1224-12N	5	12x24x12	305x610x292	Aluminum, No header	Glass fiber	E11	≥95	2125	220
Z3V-AHG-2424-12E	5	24x24x12	610x610x292	Aluminum, No header	Glass fiber	H13	99.95	4250	250
Z3V-AHG-1224-12E	5	12x24x12	305x610x292	Aluminum, No header	Glass fiber	H13	99.95	2125	250
Z4V-AHG-2424-12H	5	24x24x12	610x610x292	Aluminum, No header	Glass fiber	H14	99.995	4250	285
Z4V-AHG-1224-12H	5	12x24x12	305x610x292	Aluminum, No header	Glass fiber	H14	99.995	2125	285
Z4V-GHG-2424-12E	5	24x24x12	610x610x292	Galvanized Steel, No header	Glass fiber	H14	99.995	4250	285
Z4V-GHG-1224-12E	5	12x24x12	305x610x292	Galvanized Steel, No header	Glass fiber	H14	99.995	2125	285

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

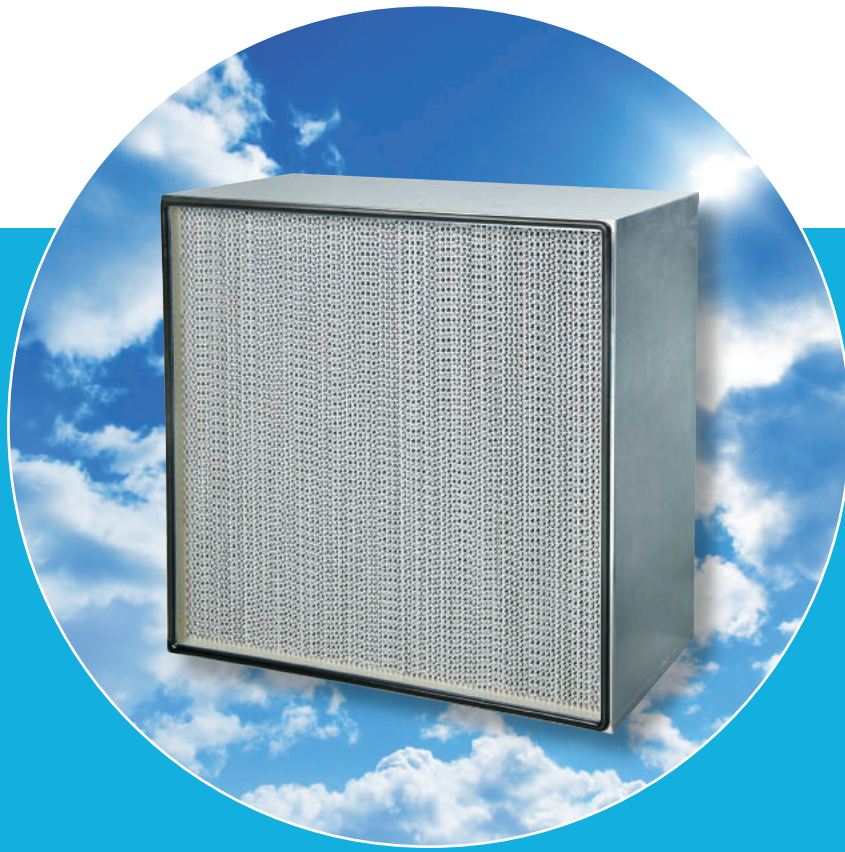
* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class H13-H14

Premo-Airbox (Aluminum Separator) Highlights



- Robust design
- High efficiency
- Small range pleat distance
- Endless gasket
- Corrugated folds designed to prevent damage of filter media
- Continuous operating temperature at 80 °C
- 80% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@ MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z3S-ABG-2448-06N	24x48x6	610x1220x150	Aluminum, No header	Glass fiber	H13	99.95	3200	320
Z3S-AKG-2424-06N	24x24x6	610x610x150	Aluminum, No header	Glass fiber	H13	99.95	1700	220
Z3S-ABG-1224-06N	12x24x6	305x610x150	Aluminum, No header	Glass fiber	H13	99.95	800	320
Z3S-ABG-2448-12N	24x48x12	610x1220x292	Aluminum, No header	Glass fiber	H13	99.95	4400	200
Z3S-ABG-2424-12L	24x24x12	610x610x292	Aluminum, No header	Glass fiber	H13	99.95	3400	320
Z3S-ABG-1224-12N	12x24x12	305x610x292	Aluminum, No header	Glass fiber	H13	99.95	1700	320
Z4S-ABG-2448-06N	24x48x6	610x1220x150	Aluminum, No header	Glass fiber	H14	99.995	2000	220
Z4S-ASG-2424-06K	24x24x6	610x610x150	Aluminum, No header	Glass fiber	H14	99.995	2500	220

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

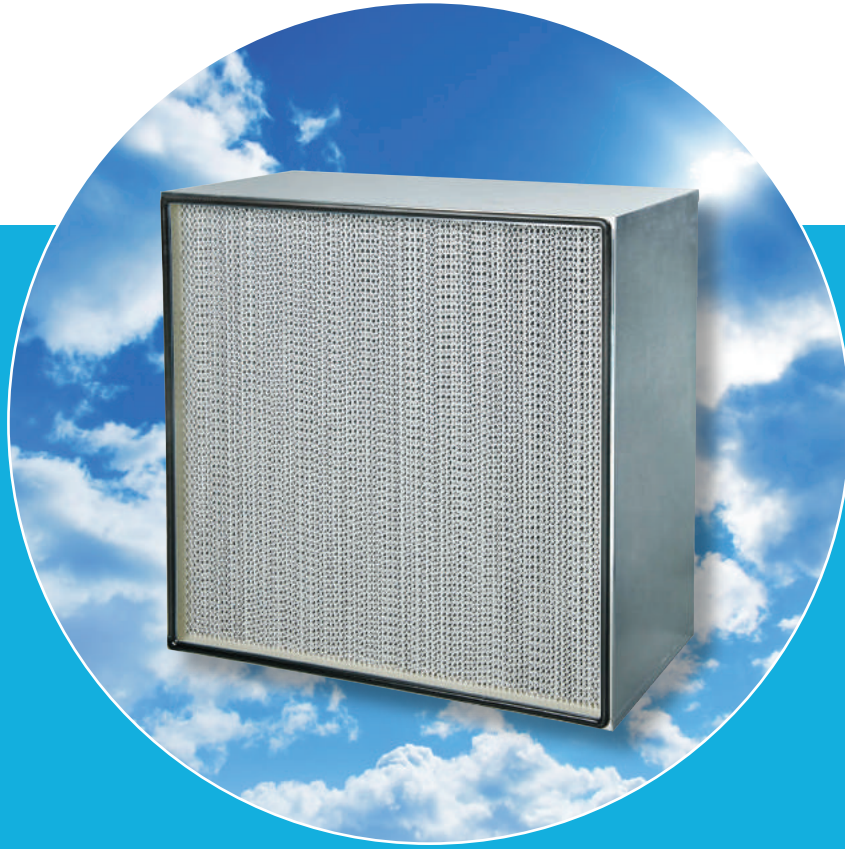
* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class H13-H14

Premo-Airbox (Aluminum Separator) Highlights



- Robust design
- High efficiency
- Small range pleat distance
- Endless gasket
- Corrugated folds designed to prevent damage of filter media
- Continuous operating temperature at 80 °C
- 80% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@ MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z4S-ASG-C000-12N	12x24x6	305x610x150	Aluminum, No header	Glass fiber	H14	99.995	500	220
Z4S-ABG-2448-12N	24x48x12	610x1220x292	Aluminum, No header	Glass fiber	H14	99.995	4400	220
Z4S-ABG-2424-12N	24x24x12	610x610x292	Aluminum, No header	Glass fiber	H14	99.995	3400	350
Z4S-ABG-C000-01N	20x24x12	508x610x292	Aluminum, No header	Glass fiber	H14	99.995	2850	350
Z4S-ABG-1824-12L	18x24x12	457x610x292	Aluminum, No header	Glass fiber	H14	99.995	2500	350
Z4S-ABG-1224-12N	12x24x12	305x610x292	Aluminum, No header	Glass fiber	H14	99.995	1700	350
Z4S-ABG-2430-12L	24x30x12	610x762x292	Aluminum, No header	Glass fiber	H14	99.995	3400	350

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

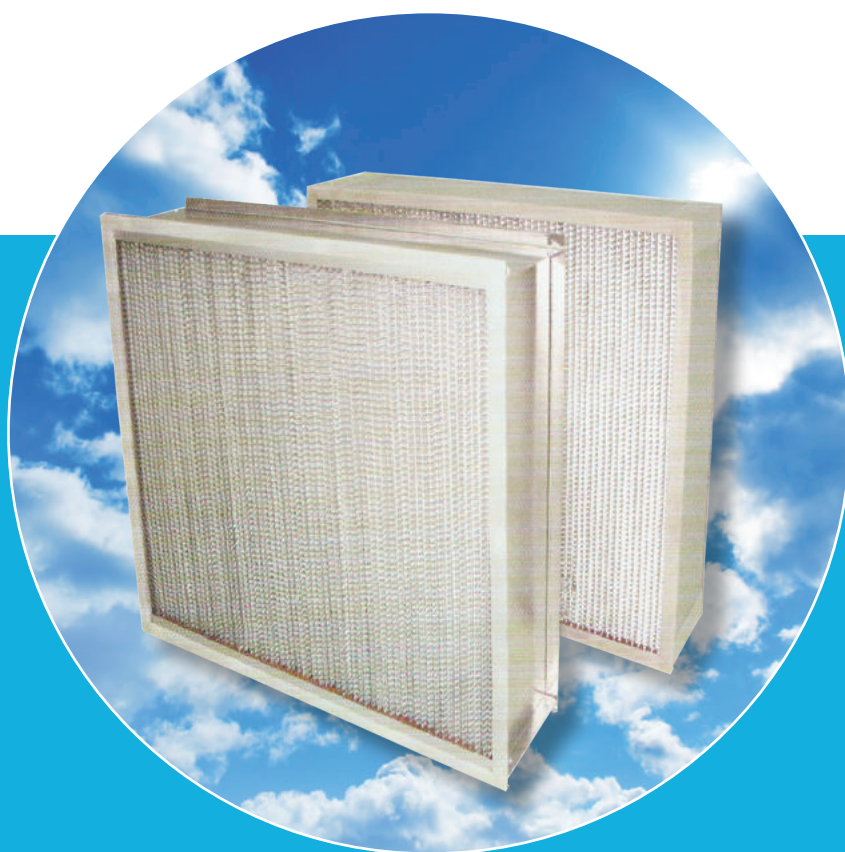
* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class H14

Airbox (High Temp. Alu Sep.) Highlights



- Robust design
- High temperature resistance up to 250 °C
- High Efficiency 99.995% @ MPPS according to EN1822
- Specific sealant to endure high temperature condition
- Corrugated folds designed to prevent damage of filter media
- Red Silicon sealant or white glue upon request
- 80% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Airflow (CMH)	Pressure drop (Pa)	Operating Temperature (°C)	Sealant
Z4H-GBG-C000-01N	24x24x6	610x610x150	Galvanized, No header/ face guard at both sides/ no gasket	Glass fiber	1000	250	100-200	White Glue
Z4H-GBG-1224-06N	12x24x6	305x610x150	Galvanized steel/ no header/ face guard at both sides/ no gasket/	Glass fiber	800	350	100-200	Red Silicone
Z4H-GBG-2424-12N	24x24x12	610x610x292	Galvanized steel/ no header/ face guard at both sides/ no gasket	Glass fiber	3400	350	100-200	Red Silicone
Z4H-GBG-1224-12N	12x24x12	305x610x292	Galvanized steel/ no header/ face guard at both sides/ no gasket	Glass fiber	1700	350	100-200	Red Silicone
Z4H-SBG-C000-03N	24x24x6	610x610x150	Stainless Steel (SUS 304) No header, Double Faceguard	Glass fiber	1700	250	≤250	White Glue
Z4H-SBG-2448-06K	24x48x6	610x1220x150	Stainless Steel (SUS 304) No header, Double Faceguard	Glass fiber	1150	200	≤250	Red Silicone
Z4H-SBG-C000-01N	24x24x12	610x610x292	Stainless Steel (SUS 304) No header, Double Faceguard	Glass fiber	3400	350	≤250	Red Silicone
Z4H-SBG-C000-02N	24x24x12	610x610x292	Stainless Steel (SUS 304) No header, Double Faceguard	Glass fiber	4250	350	≤250	White Glue

* Recommendation for usage;
Normal Temperature (≤100 °C) : Aluminum frame
≥100°C-200 °C : Galvanized steel frame
≥200°C-250 °C : Stainless steel (SUS304) frame

* Recommended final pressure drop at 600 Pa
* Special sizes are available on requested
* Available in no header, single header and double header
* All performance data is based on EN1822:2009

High Efficiency Filter, Class H13

Premo-Pleat (HEPA Mini-Pleat)

Highlights

- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z3M-ASG-2448-03J	24x48x3	610x1220x69	Aluminum, No header	Glass fiber	H13	99.95	1200	110
Z3M-ASG-2347-03J	24x48x3	600x1210x69	Aluminum, No header	Glass fiber	H13	99.95	1200	110
Z3M-ASG-2424-03J	24x24x3	610x610x69	Aluminum, No header	Glass fiber	H13	99.95	600	110
Z3M-ASG-2323-03J	24x24x3	600x600x69	Aluminum, No header	Glass fiber	H13	99.95	600	110
Z3M-ASG-1224-03J	12x24x3	305x610x69	Aluminum, No header	Glass fiber	H13	99.95	300	110
Z3M-ASG-2448-04N	24x48x4	610x1220x90	Aluminum, No header	Glass fiber	H13	99.95	1200	110
Z3M-ASG-2347-04N	24x48x4	600x1210x90	Aluminum, No header	Glass fiber	H13	99.95	1200	110
Z3M-ASG-2424-04J	24x24x4	610x610x90	Aluminum, No header	Glass fiber	H13	99.95	600	110

* Recommended final pressure drop at 600 Pa

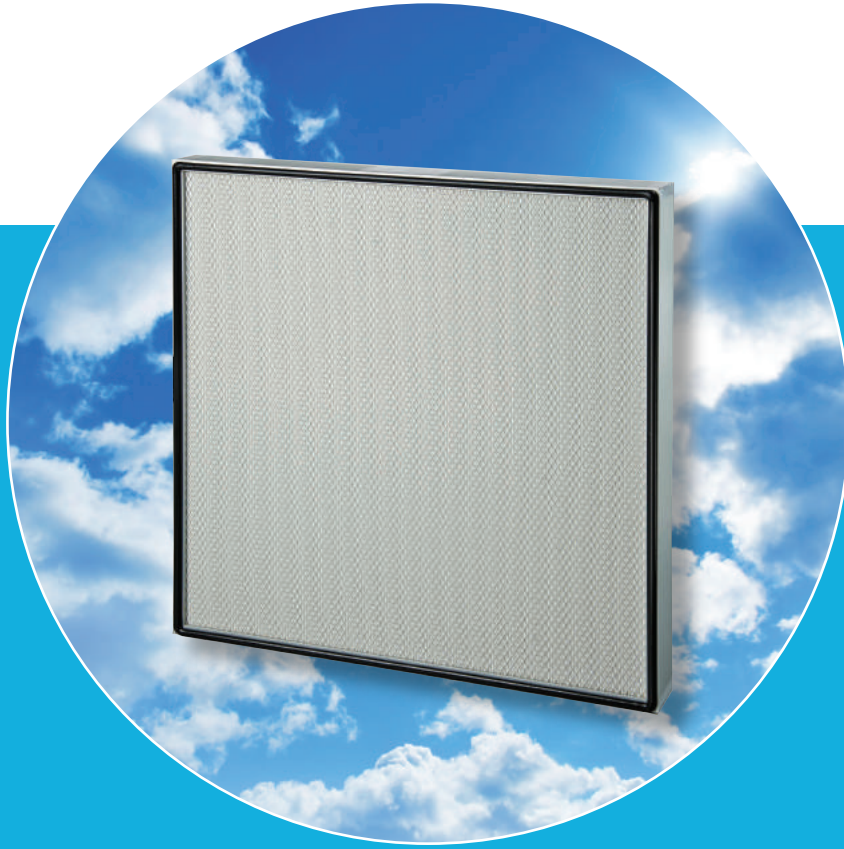
* Special sizes are available on requested

* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

Premo-Pleat (HEPA Mini-Pleat) Highlights



- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z3M-ASG-2323-04N	24x24x4	600x600x90	Aluminum, No header	Glass fiber	H13	99.95	600	110
Z3M-ASG-1224-04N	12x24x4	305x610x90	Aluminum, No header	Glass fiber	H13	99.95	300	110
Z3M-ASG-2448-05N	24x48x5	610x1220x120	Aluminum, No header	Glass fiber	H13	99.95	1200	110
Z3M-ASG-2347-05N	24x48x5	600x1210x120	Aluminum, No header	Glass fiber	H13	99.95	1200	110
Z3M-ASG-2424-05N	24x24x5	610x610x120	Aluminum, No header	Glass fiber	H13	99.95	600	110
Z3M-ASG-2323-05N	24x24x5	600x600x120	Aluminum, No header	Glass fiber	H13	99.95	600	110
Z3M-ASG-1224-05N	12x24x5	305x610x120	Aluminum, No header	Glass fiber	H13	99.95	300	110

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class H13

Premo-Pleat (HEPA Mini-Pleat)

Highlights

- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z3M-ASG-2448-06J	24x48x6	610x1220x150	Aluminum, No header	Glass fiber	H13	99.95	1200	110
Z3M-ASG-2347-06N	24x48x6	600x1210x150	Aluminum, No header	Glass fiber	H13	99.95	1200	110
Z3M-ASG-2424-06J	24x24x6	610x610x150	Aluminum, No header	Glass fiber	H13	99.95	600	110
Z3M-ASG-2323-06N	24x24x6	600x600x150	Aluminum, No header	Glass fiber	H13	99.95	600	110
Z3M-ASG-1224-06J	12x24x6	305x610x150	Aluminum, No header	Glass fiber	H13	99.95	300	110
Z3M-ASG-2424-12N	24x24x12	610x610x292	Aluminum, No header	Glass fiber	H13	99.95	2000	170
Z3M-ASG-1224-12N	12x24x12	305x610x292	Aluminum, No header	Glass fiber	H13	99.95	1400	170

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

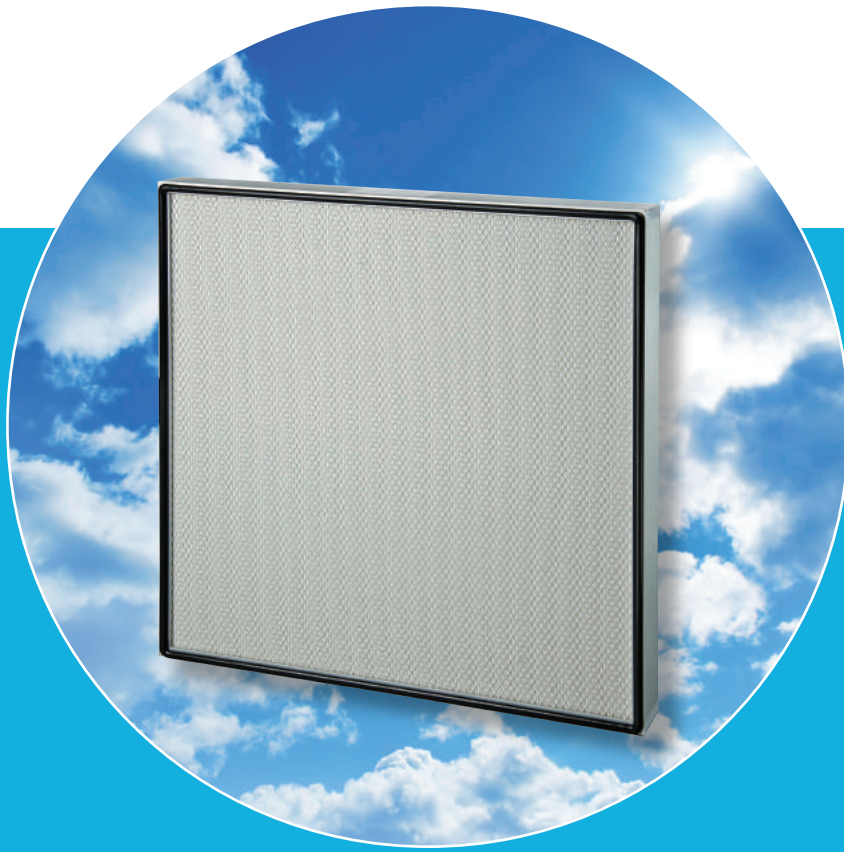
* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class H14

Premo-Pleat (HEPA Mini-Pleat) Highlights



- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z4M-ASG-3648-03J	36x48x3	915x1220x69	Aluminum, No header	Glass fiber	H14	99.995	1800	120
Z4M-ASG-3636-03J	36x36x3	915x915x69	Aluminum, No header	Glass fiber	H14	99.995	1400	120
Z4M-ASG-2460-03J	24x60x3	610x1525x69	Aluminum, No header	Glass fiber	H14	99.995	1800	120
Z4M-ASG-2448-03N	24x48x3	610x1220x69	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-2347-03J	24x48x3	600x1210x69	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-2436-03J	24x36x3	610x915x69	Aluminum, No header	Glass fiber	H14	99.995	900	120
Z4M-ASG-2430-03J	24x30x3	610x762x69	Aluminum, No header	Glass fiber	H14	99.995	1000	150
Z4M-ASG-2424-03N	24x24x3	610x610x69	Aluminum, No header	Glass fiber	H14	99.995	600	120

- * Recommended final pressure drop at 600 Pa
- * Special sizes are available on requested
- * Other materials are available on requested
- * Available in no header, single header, and double header
- * All performance data is based on EN1822:2009

High Efficiency Filter, Class H14

Premo-Pleat (HEPA Mini-Pleat)

Highlights

- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z4M-ASG-2323-03J	24x24x3	600x600x69	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-2020-03J	20x20x3	508x508x69	Aluminum, No header	Glass fiber	H14	99.995	300	120
Z4M-ASG-1824-03J	18x24x3	457x610x69	Aluminum, No header	Glass fiber	H14	99.995	300	120
Z4M-ASG-1818-03J	18x18x3	457x457x69	Aluminum, No header	Glass fiber	H14	99.995	290	95
Z4M-ASG-1224-03J	12x24x3	305x610x69	Aluminum, No header	Glass fiber	H14	99.995	300	120
Z4M-ASG-1212-03J	12x12x3	305x305x69	Aluminum, No header	Glass fiber	H14	99.995	300	220
Z4M-ASG-2448-04J	24x48x4	610x1220x90	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-2347-04J	24x48x4	600x1210x90	Aluminum, No header	Glass fiber	H14	99.995	1200	120

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

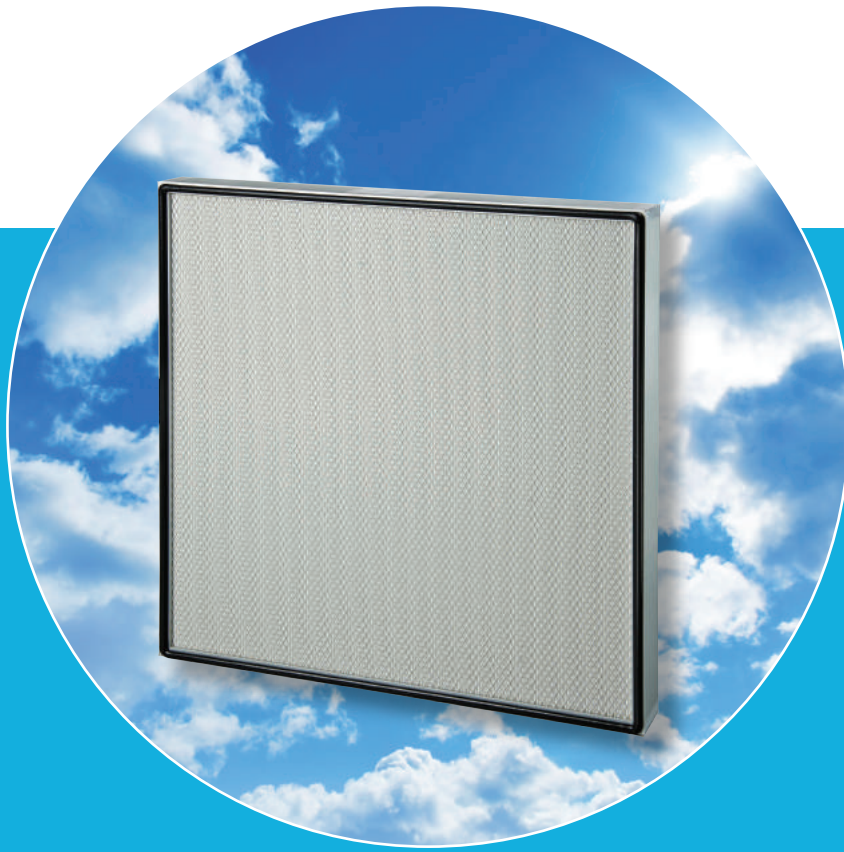
* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class H14

Premo-Pleat (HEPA Mini-Pleat) Highlights



- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z4M-ASG-2424-04J	24x24x4	610x610x90	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-2323-04N	24x24x4	600x600x90	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-1224-04N	12x24x4	305x610x90	Aluminum, No header	Glass fiber	H14	99.995	300	120
Z4M-ASG-2448-05N	24x48x5	610x1220x120	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-2347-05N	24x48x5	600x1210x120	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-2424-05J	24x24x5	610x610x120	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-2323-05N	24x24x5	600x600x120	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-1224-05J	12x14x5	305x610x120	Aluminum, No header	Glass fiber	H14	99.995	800	220

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

* Other materials are available on requested

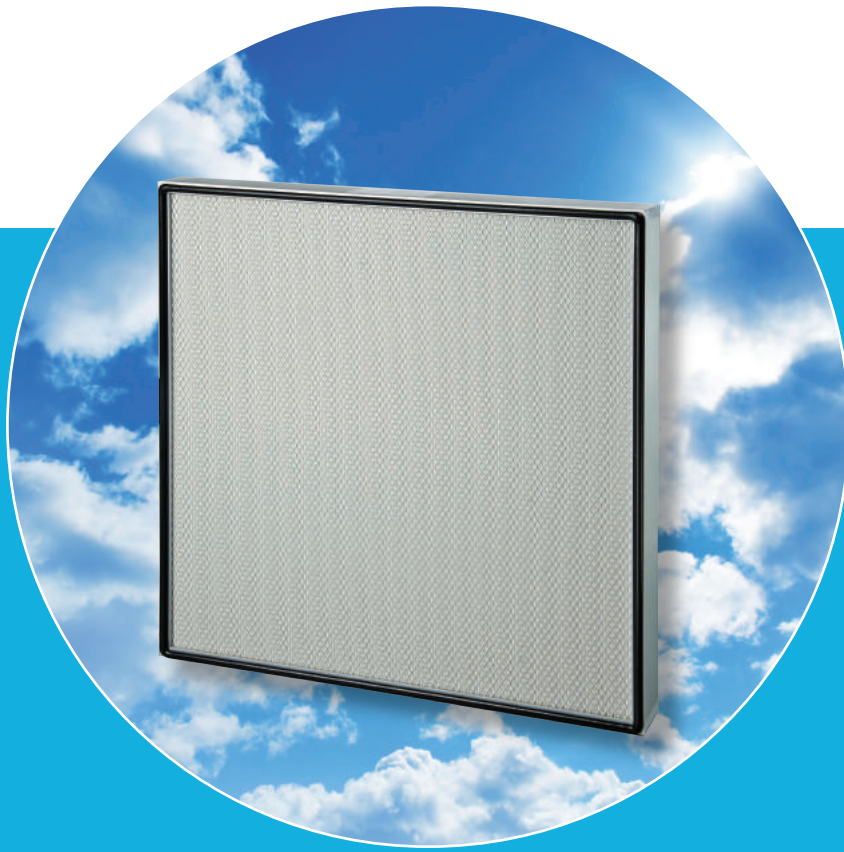
* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class H14

Premo-Pleat (HEPA Mini-Pleat)

Highlights



- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z4M-ASG-2448-06J	24x48x6	600x1220x150	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-2347-06J	24x48x6	600x1210x150	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-2424-06J	24x24x6	610x610x150	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-2323-06N	24x24x6	600x600x150	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-1224-06J	12x24x6	305x610x150	Aluminum, No header	Glass fiber	H14	99.995	300	120
Z4M-ASG-C000-38N	24x24x12	610x610x292	Aluminum, No header	Glass fiber	H14	99.995	2000	200
Z4M-ASG-1224-12N	12x24x12	305x610x292	Aluminum, No header	Glass fiber	H14	99.995	1150	250

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

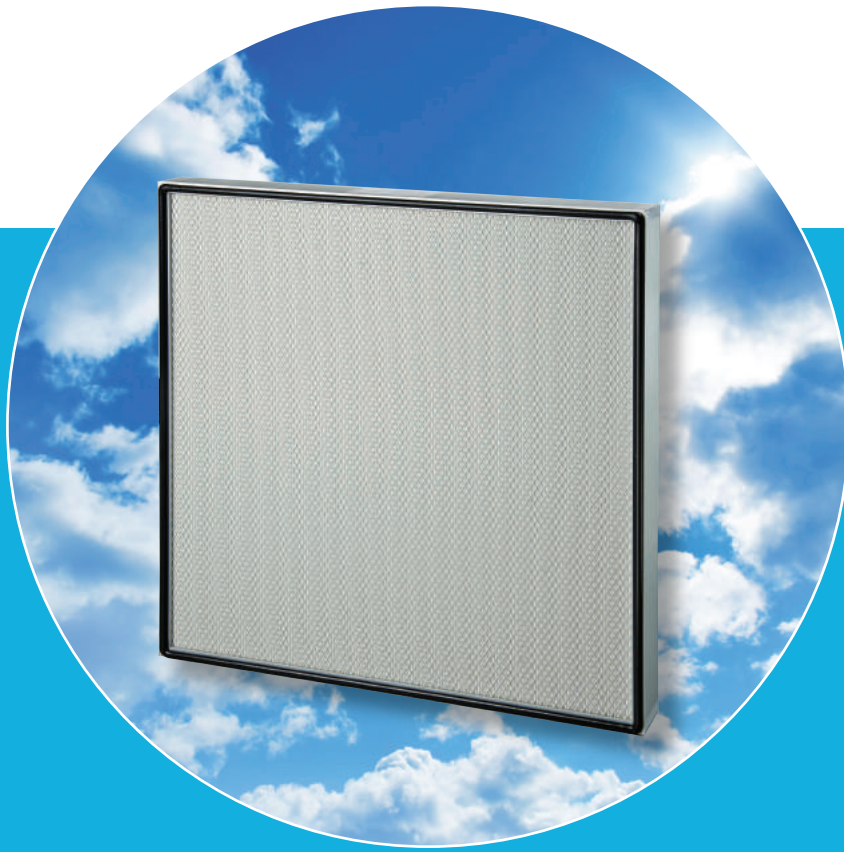
* Other materials are available on requested

* Available in no header, single header, and double header

* All performance data is based on EN1822:2009

High Efficiency Filter, Class H14

Premo-Pleat (HEPA Mini-Pleat for FFU) Highlights



- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Increased glue distance to improve airflow
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z4M-ASG-C001-11N	24x48x3	610x1220x69	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-C001-12N	24x48x3	600x1210x69	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-C001-13N	24x36x3	610x915x69	Aluminum, No header	Glass fiber	H14	99.995	900	120
Z4M-ASG-C001-14N	24x24x3	610x610x69	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-C001-15N	24x24x3	600x600x69	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-C001-16N	24x48x4	610x1220x90	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-C001-17N	24x48x4	600x1210x90	Aluminum, No header	Glass fiber	H14	99.995	1200	120
Z4M-ASG-C001-18N	24x36x4	610x915x90	Aluminum, No header	Glass fiber	H14	99.995	900	120
Z4M-ASG-C001-19N	24x24x4	610x610x90	Aluminum, No header	Glass fiber	H14	99.995	600	120
Z4M-ASG-C001-20N	24x24x4	600x600x90	Aluminum, No header	Glass fiber	H14	99.995	600	120

*Recommended final pressure drop at 600 Pa

*Other materials are available on requested

*All performance data is based on EN1822:2009

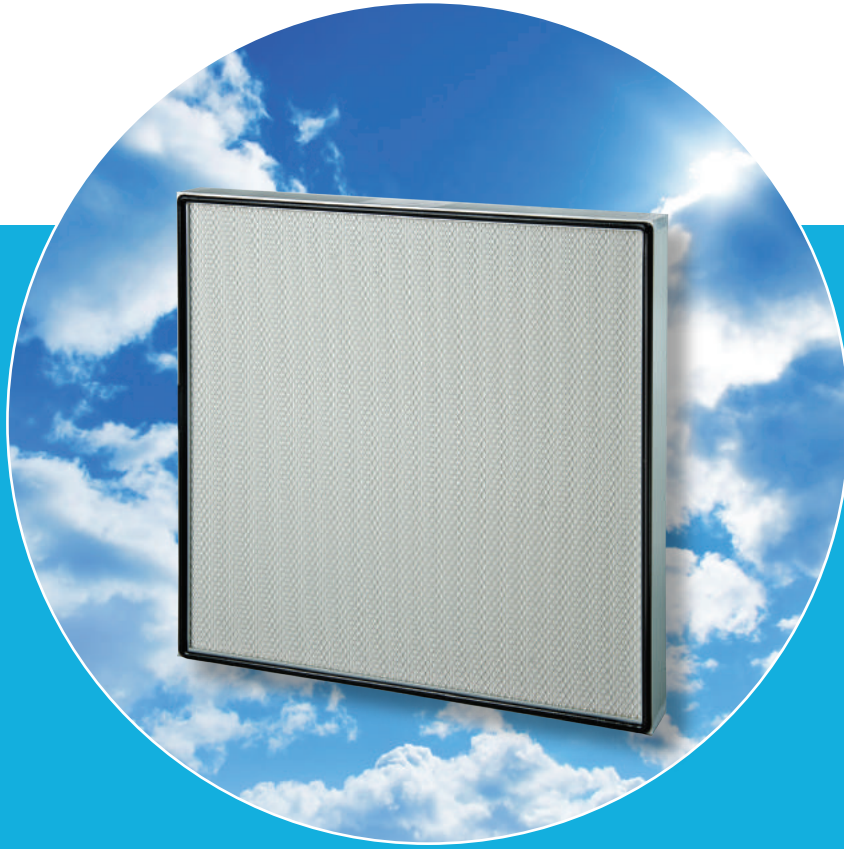
*Special sizes are available on requested

*Available in no header, single header, and double header

Valitech Co., Ltd. Tel. 02 508 0041
www.vali-tech.net

High Efficiency Filter, Class U15

Premo-Pleat (ULPA Mini-Pleat) Highlights



- Ultra-compact
- High efficiency
- Low operating cost
- Endless gasket
- Fast and easy installation
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

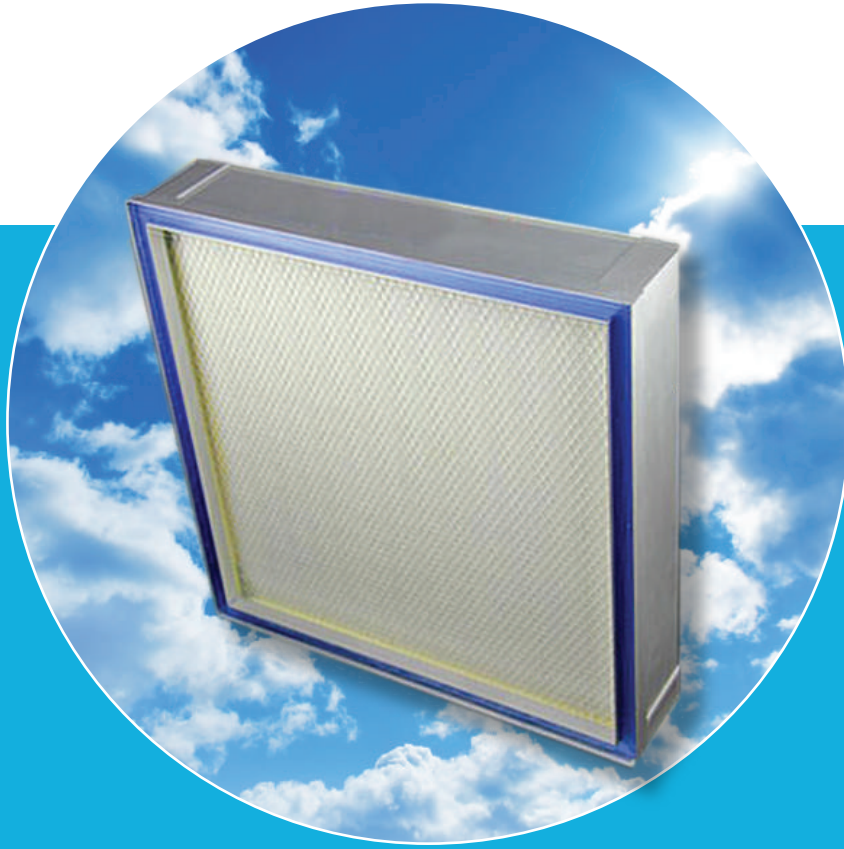
Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z5M-ASG-C000-03N	24x48x3	610x1220x69	Aluminum, No header	Glass fiber	U15	99.9995	1400	140
Z5M-ASG-2347-03N	24x48x3	600x1210x69	Aluminum, No header	Glass fiber	U15	99.9995	1400	140
Z5M-ASG-2424-03N	24x24x3	610x610x69	Aluminum, No header	Glass fiber	U15	99.9995	640	140
Z5M-ASG-2323-03N	24x24x3	600x600x69	Aluminum, No header	Glass fiber	U15	99.9995	640	140
Z5M-ASG-1224-03N	12x24x3	305x610x69	Aluminum, No header	Glass fiber	U15	99.9995	300	140

- * Recommended final pressure drop at 600 Pa
- * Special sizes are available on requested
- * Other materials are available on requested
- * Gel gasket is available on requested
- * Available in no header, single header, and double header
- * All performance data is based on EN1822:2009

High Efficiency Filter,
 Class H13-H14

**Premo-Pleat (Gel type)
 (HEPA Mini-Pleat)**

Highlights



- Ultra-compact
- High efficiency
- Low operating cost
- Gel gasket on top (Air inlet)
- Fast and easy installation with HEPA BOX
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z3M-ASG-C000-21N	24x48x4	610x1220x95	Aluminum, No header	Glass fiber	H13	99.95	2600	190
Z3M-ASG-C000-01N	24x24x4	610x610x95	Aluminum, No header	Glass fiber	H13	99.95	1500	250
Z3M-ASG-C000-02N	12x24x4	305x610x95	Aluminum, No header	Glass fiber	H13	99.95	840	250
Z4M-ASG-C000-89N	24x48x4	610x1220x95	Aluminum, No header	Glass fiber	H14	99.995	2600	190
Z4M-ASG-C000-93N	24x24x4	610x610x95	Aluminum, No header	Glass fiber	H14	99.995	1500	250
Z4M-ASG-C000-98N	12x24x4	305x610x95	Aluminum, No header	Glass fiber	H14	99.995	840	250

* Recommended final pressure drop at 600 Pa
 * Special sizes are available on requested
 * Other materials are available on requested
 * All performance data is based on EN1822:2009

High Efficiency Filter, Class H13-H14

Premo-Pleat (Gel type) (HEPA Mini-Pleat)

Highlights



- Ultra-compact
- High efficiency
- Low operating cost
- Gel gasket at side
- Fast and easy installation with HEPA BOX
- Continuous operating temperature at 70 °C
- 100% RH

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z3M-ASG-C000-18N	24x48x5	610x1220x117	Aluminum, No header	Glass fiber	H13	99.95	3100	170
Z3M-ASG-C000-19N	24x24x5	610x610x117	Aluminum, No header	Glass fiber	H13	99.95	1500	170
Z3M-ASG-C000-20N	12x24x5	305x610x117	Aluminum, No header	Glass fiber	H13	99.95	700	170
Z4M-ASG-C001-09N	24x48x5	610x1220x117	Aluminum, No header	Glass fiber	H14	99.995	3100	190
Z4M-ASG-C000-97N	24x24x5	610x610x117	Aluminum, No header	Glass fiber	H14	99.995	1500	250
Z4M-ASG-C001-10N	12x24x5	305x610x117	Aluminum, No header	Glass fiber	H14	99.995	700	190

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

* Other materials are available on requested

* All performance data is based on EN1822:2009

HEPA with Hood,
Class H13-H14

Premo-2in1 (HEPA with Hood) Highlights



- Ultra-compact
- High efficiency
- Leakage-free design
- Light weight
- Quick and easy Installation

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z3T-GSG-2448-05J	24x48x5	610x1220x120	Galvanized steel, No header	Glass fiber	H13	99.95	1200	110
Z3T-GSG-2347-05J	24x48x5	600x1210x120	Galvanized steel, No header	Glass fiber	H13	99.95	1200	110
Z3T-GSG-2424-05N	24x24x5	610x610x120	Galvanized steel, No header	Glass fiber	H13	99.95	600	110
Z3T-GSG-2323-05N	24x24x5	600x600x120	Galvanized steel, No header	Glass fiber	H13	99.95	600	110
Z3T-GSG-2448-06N	24x48x6	610x1220x150	Galvanized steel, No header	Glass fiber	H13	99.95	1200	110
Z3T-GSG-2347-06J	24x48x6	600x1210x150	Galvanized steel, No header	Glass fiber	H13	99.95	1200	110
Z3T-GSG-2424-06J	24x24x6	610x610x150	Galvanized steel, No header	Glass fiber	H13	99.95	600	110
Z3T-GSG-2323-06N	24x24x6	600x600x150	Galvanized steel, No header	Glass fiber	H13	99.95	600	110
Z4T-GSG-2448-05J	24x48x5	610x1220x120	Galvanized steel, No header	Glass fiber	H14	99.995	1200	120

* Recommended final pressure drop at 600 Pa

* Collar Size 10 Inch

* Special sizes are available on requested

* Other materials are available on requested

* All performance data is based on EN1822:2009

HEPA with Hood,
Class H13-H14

Premo-2in1 (HEPA with Hood) Highlights



- Ultra-compact
- High efficiency
- Leakage-free design
- Light weight
- Quick and easy Installation

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z4T-GSG-2347-05J	24x48x5	600x1210x120	Galvanized steel, No header	Glass fiber	H14	99.995	1200	120
Z4T-GSG-2424-05J	24x24x5	610x610x120	Galvanized steel, No header	Glass fiber	H14	99.995	1000	190
Z4T-GSG-2323-05J	24x24x5	600x600x120	Galvanized steel, No header	Glass fiber	H14	99.995	600	120
Z4T-GSG-1224-05J	12x24x5	305x610x120	Galvanized steel, No header	Glass fiber	H14	99.995	300	120
Z4T-GSG-2448-06J	24x48x6	610x1220x150	Galvanized steel, No header	Glass fiber	H14	99.995	1200	120
Z4T-GSG-2347-06J	24x48x6	600x1210x150	Galvanized steel, No header	Glass fiber	H14	99.995	1200	120
Z4T-GSG-2424-06J	24x24x6	610x610x150	Galvanized steel, No header	Glass fiber	H14	99.995	600	120
Z4T-GSG-2323-06J	24x24x6	600x600x150	Galvanized steel, No header	Glass fiber	H14	99.995	600	150
Z4T-GSG-1224-06N	12x24x6	305x610x150	Galvanized steel, No header	Glass fiber	H14	99.995	300	120

* Recommended final pressure drop at 600 Pa

* Collar Size 10 Inch

* Special sizes are available on requested

* Other materials are available on requested

* All performance data is based on EN1822:2009

HEPA with Hood, Class H13-H14 **Premo-2in1** **(HEPA with Hood with Insulation)**

Highlights



- Ultra-compact
- High efficiency
- Leakage-free design
- Light weight
- Quick and easy Installation

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z3T-ISG-2448-05N	24x48x5	610x1220x120	Galvanized steel, No header	Glass fiber	H13	99.95	1200	110
Z3T-ISG-2347-05N	24x48x5	600x1210x120	Galvanized steel, No header	Glass fiber	H13	99.95	1200	110
Z3T-ISG-2424-05N	24x24x5	610x610x120	Galvanized steel, No header	Glass fiber	H13	99.95	600	110
Z3T-ISG-2323-05N	24x24x5	600x600x120	Galvanized steel, No header	Glass fiber	H13	99.95	600	110
Z3T-ISG-2448-06N	24x48x6	610x1220x150	Galvanized steel, No header	Glass fiber	H13	99.95	1200	110
Z3T-ISG-2347-06N	24x48x6	600x1210x150	Galvanized steel, No header	Glass fiber	H13	99.95	1200	110
Z3T-ISG-2424-06N	24x24x6	610x610x150	Galvanized steel, No header	Glass fiber	H13	99.95	600	110
Z3T-ISG-2323-06N	24x24x6	600x600x150	Galvanized steel, No header	Glass fiber	H13	99.95	600	110
Z4T-ISG-2448-05N	24x48x5	610x1220x120	Galvanized steel, No header	Glass fiber	H14	99.995	1200	120

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

* All performance data is based on EN1822:2009

* Face Protection, Endless PU gasket, Test port at air outlet side

* Collar Size 10 Inch

* Other materials are available on requested

* Without Flying ring

HEPA with Hood, Class H13-H14 **Premo-2in1** (HEPA with Hood with Insulation)

Highlights

- Ultra-compact
- High efficiency
- Leakage-free design
- Light weight
- Quick and easy Installation

Materials and Operating Conditions

Code	Size (inch)	Actual size (mm)	Frame	Media	Class	Efficiency@MPPS (%) according to EN 1822	Airflow (CMH)	Pressure drop (Pa)
Z4T-ISG-2347-05N	24x48x5	600x1210x120	Galvanized steel, No header	Glass fiber	H14	99.995	2000	220
Z4T-ISG-2424-05N	24x24x5	610x610x120	Galvanized steel, No header	Glass fiber	H14	99.995	1000	190
Z4T-ISG-2323-05N	24x24x5	600x600x120	Galvanized steel, No header	Glass fiber	H14	99.995	600	120
Z4T-ISG-1224-05N	12x24x5	305x610x120	Galvanized steel, No header	Glass fiber	H14	99.995	300	120
Z4T-ISG-2448-06N	24x48x6	610x1220x150	Galvanized steel, No header	Glass fiber	H14	99.995	1200	120
Z4T-ISG-2347-06N	24x48x6	600x1210x150	Galvanized steel, No header	Glass fiber	H14	99.995	1200	120
Z4T-ISG-2424-06N	24x24x6	610x610x150	Galvanized steel, No header	Glass fiber	H14	99.995	600	120
Z4T-ISG-2323-06N	24x24x6	600x600x150	Galvanized steel, No header	Glass fiber	H14	99.995	600	150
Z4T-ISG-1224-06N	12x24x6	305x610x150	Galvanized steel, No header	Glass fiber	H14	99.995	300	120

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

* All performance data is based on EN1822:2009

* Face Protection, Endless PU gasket, Test port at air outlet side

* Collar Size 10 Inch

* Other materials are available on requested

* Without Flying ring

HEPA with Hood, Class H14 Premo-2in1 (Knock-down type) Highlights



- Combine the use of ceiling system and hangers
- High Efficiency 99.995% @ MPPS according to EN1822
- Light weight
- Easy assembling
- Interchangeable filter
- Quick filter changing
- Fast and easy installation

Materials and Operating Conditions

Code	Cabinet Dimension H x W x D (mm)	Filter Dimension H x W x D (mm)	Frame	Media	Class	Airflow (CMH)	Pressure drop (Pa)	Collar Size (INCH/mm)
Z4T-ASG-C000-02N	664x1254x150	610x1220x69	Aluminum without Insulation	Glass fiber	H14	1200	140	10/250
Z4T-ASG-C000-01N	664x664x150	610x610x69	Aluminum without Insulation	Glass fiber	H14	600	140	10/250
TKB-SPC-2448-07T	650x1260x180	610x1220x69	Aluminum without Insulation	Glass fiber	H14	1200	120	10/250
TKB-SPC-2424-07T	650x650x180	610x610x69	Aluminum without Insulation	Glass fiber	H14	600	120	10/250

* Faceguard and endless gasket at air outlet

* Recommended final pressure drop at 600 Pa

* Special sizes are available on requested

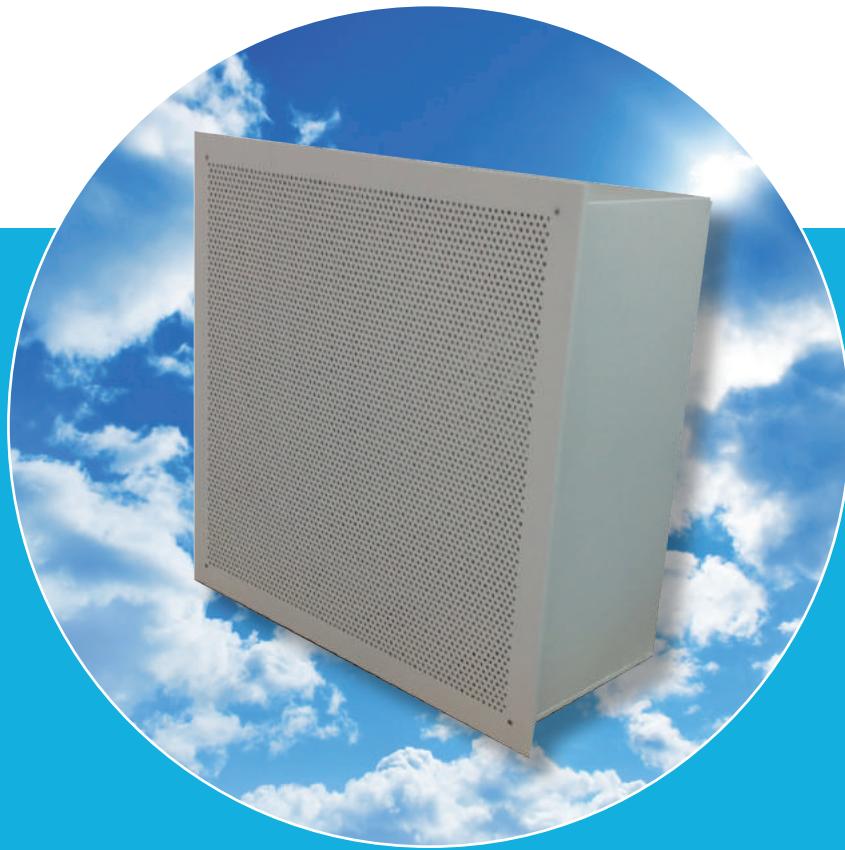
* Other materials are available on requested

* All performance data is based on EN1822:2009

Equipment

Vali-Box (HEPA Box)

Highlights

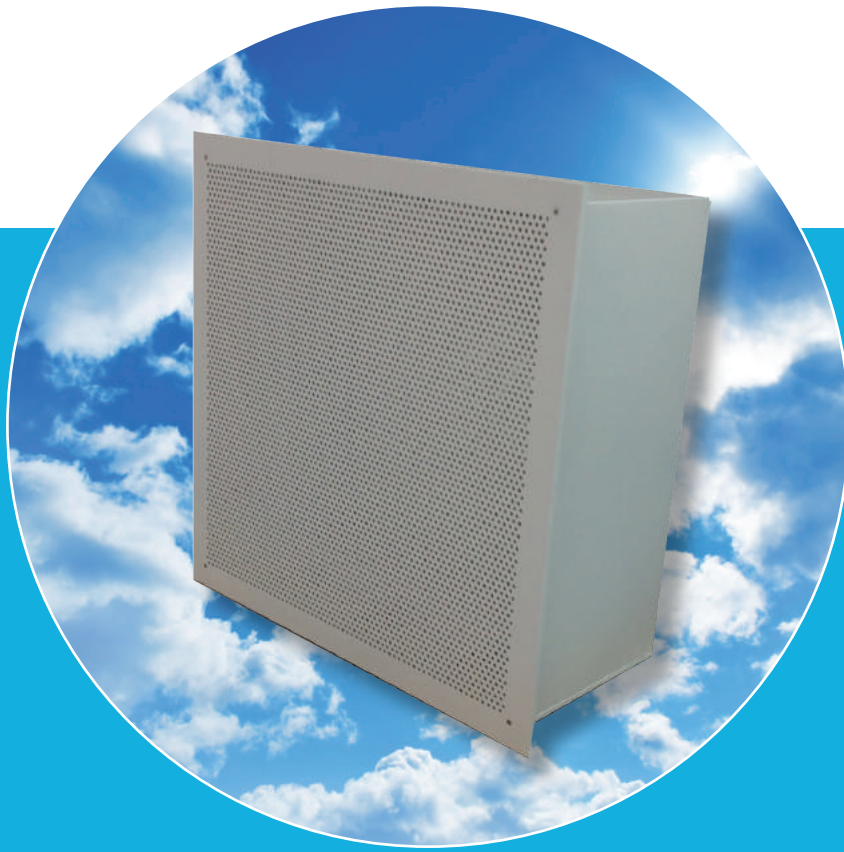


- Compact structure with all essential features for clean room
- High durability with good corrosion resistance
- Quick filter changing
- Fast and easy installation
- Perforated style diffuser

Materials and Operating Conditions

Code Set	Code HEPA BOX	Cabinet Dimension HxWxD (mm)	Diffuser Dimension HxW (mm)	Code Filter	Filter Dimension HxWxD (mm)	Casing Material	Collar Size (INCH/mm)	Collar Position
SET-HB4-3030-001	THB-SPC-3030-13T	690 x 690 x 330	740x740	Z4M-ASG-2424-03N	610x610x69	Cold rolled steel with epoxy powder	10/250	Round type on top
SET-HB4-3030-003				Z4M-ASG-2424-04N	610x610x90			
SET-HB4-3030-002	THB-SPR-3030-13T	690 x 690 x 330	740x740	Z4M-ASG-2424-03N	610x610x69	Cold rolled steel with epoxy powder	500x100 mm	Square type on top
SET-HB4-3030-004				Z4M-ASG-2424-04N	610x610x90			
SET-HB4-3053-001	THB-SPC-3053-13T	1300 x 690 x 330	1350 x 740	Z4M-ASG-2448-03N	610x1220x69	Cold rolled steel with epoxy powder	10/250	Round type on top
SET-HB4-3053-003				Z4M-ASG-2448-04N	610x1220x90			
SET-HB4-3053-002	THB-SPR-3053-13T	1300 x 690 x 330	1350 x 740	Z4M-ASG-2448-03N	610x1220x69	Cold rolled steel with epoxy powder	500x100 mm	Square type on top
SET-HB4-3053-004				Z4M-ASG-2448-04N	610x1220x90			

- * Special sizes are available on requested
- * Stainless Steel casing is available
- * Other collar sizes shapes are available
- * Other diffuser styles are available
- * Probe Validation Upstream is available on requested



Equipment

Vali-Box (HEPA Box)

Highlights

- Compact structure with all essential features for clean room
- High durability with good corrosion resistance
- Quick filter changing
- Fast and easy installation
- Perforated style diffuser

Materials and Operating Conditions

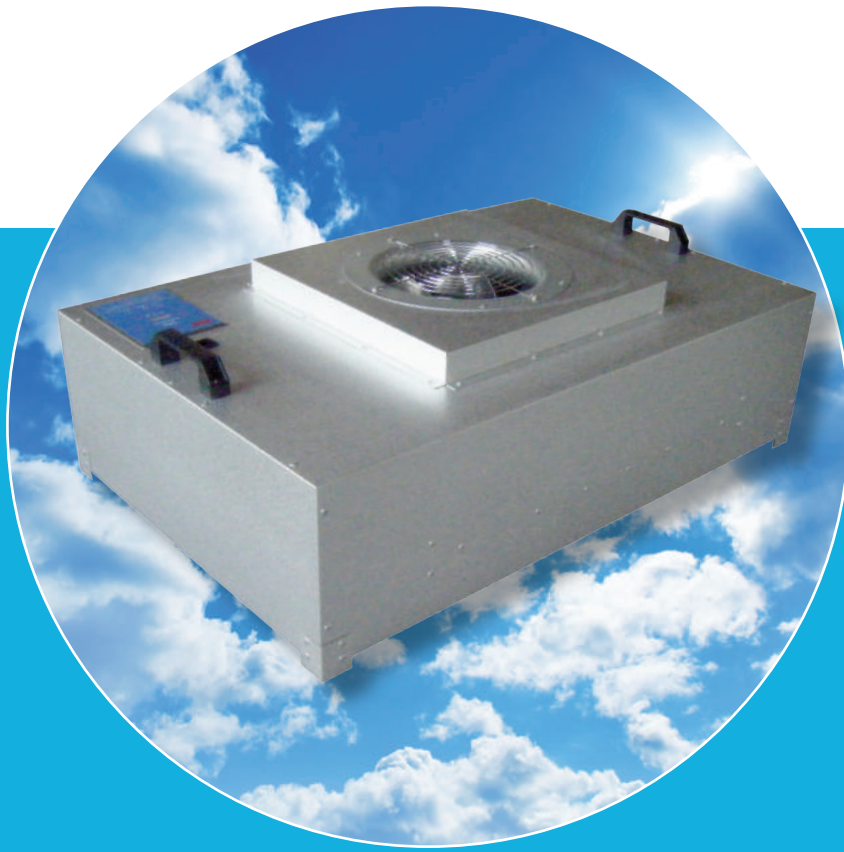
Code Set	Code HEPA BOX	Cabinet Dimension HxWxD (mm)	Diffuser Dimension HxW (mm)	Code Filter	Filter Dimension HxWxD (mm)	Casing Material	Collar Size (INCH/mm)	Collar Position
SHB-SPC-3030-20A	THB-SPC-3030-20T	690 x 690 x 500	740x740	Z4S-ABG-2424-12N	610x610x292	Cold rolled steel with epoxy powder	10/250	Round type on top
SHB-SPC-3030-20B				Z4M-ABG-2424-06J	610x610x150			
SHB-SPR-3030-20A	THB-SPR-3030-20S	690 x 690 x 500	740x740	Z4S-ABG-2424-12N	610x610x292	Cold rolled steel with epoxy powder	500x100 mm	Square type at side
SHB-SPR-3030-20B				Z4M-ABG-2424-06J	610x610x150			
SHB-GPC-3030-20A	THB-SPC-3030-20T	690 x 690 x 500	740x740	Z4S-ABG-2424-12N	610x610x292	Galvanized steel with epoxy powder 1.2 mm	10/250	Round type on top
SHB-GPC-3030-20B				Z4M-ABG-2424-06J	610x610x150			
SHB-GPR-3030-20A	THB-SPR-3030-20S	690 x 690 x 500	740x740	Z4S-ABG-2424-12N	610x610x292	Galvanized steel with epoxy powder 1.2 mm	500x100 mm	Square type at side
SHB-GPR-3030-20B				Z4M-ABG-2424-60J	610x610x150			

- * Special sizes are available on requested
- * Stainless Steel casing is available
- * Other collar sizes shapes are available
- * Other diffuser styles are available
- * Probe Validation Upstream is available on requested

Equipment

Vali-Fan (Fan Filter Unit)

Highlights

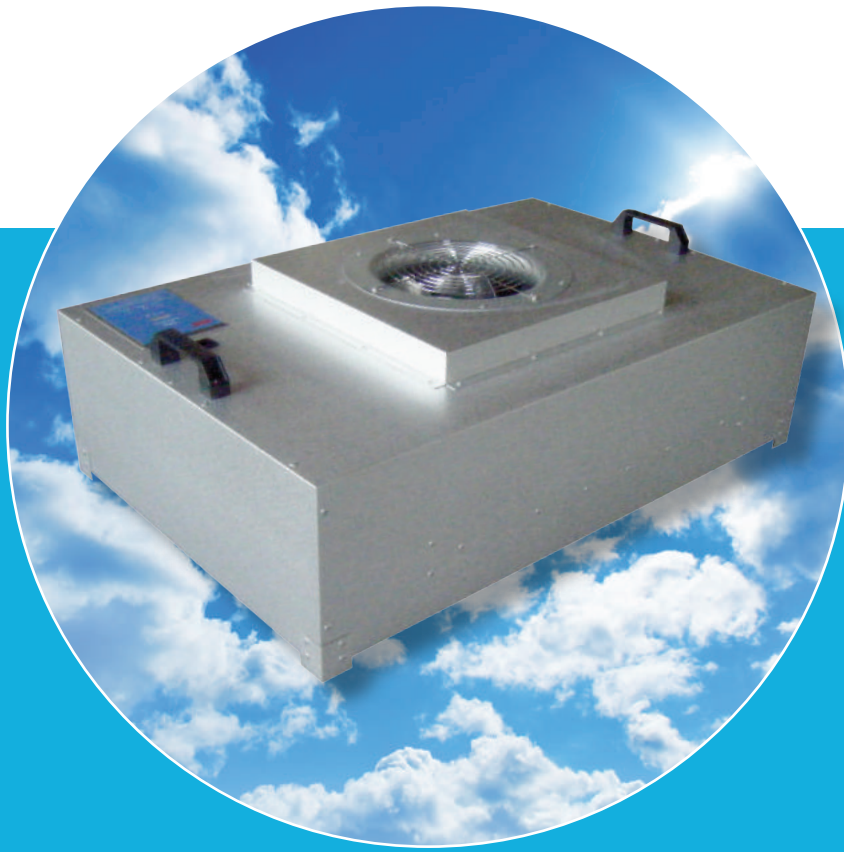


- Rigid design
- Long-life span
- Low noise and vibration
- 3 Level speed adjustability
- EBM motor imported from Germany

Materials and Operating Conditions

Code	Cabinet Dimension HxWxD (mm)	Filter Dimension HxW (mm)	Casing Material	Motor	Power Supply (V/Hz)	Power (W)
TFF-GSE-2448-06J	615x1225x166	610x1220	Galvalume	EBM	220/50	110
TFF-SSE-2448-06J	615x1225x166	610x1220	Stainless Steel (SUS304)	EBM	220/50	110
TFF-GSE-2347-06J	605x1215x166	600x1210	Galvalume	EBM	220/50	110
TFF-GSE-2436-06J	615x920x166	610x915	Galvalume	EBM	220/50	110
TFF-GSF-2424-06J	615x615x166	610x610	Galvalume	Fantech	220/50	173
TFF-SSF-2424-06J	615x615x166	610x610	Stainless Steel (SUS304)	Fantech	220/50	173
TFF-GSF-2323-06J	605x605x166	600x600	Galvalume	Fantech	220/50	173

- * Special sizes are available on requested
- * Other materials are available on requested
- * 5 Level speed adjustability is available
- * The noise test is in the standard noise measurement room



Equipment
Vali-Fan
(Fan Filter Unit)
Highlights

- Rigid design
- Long-life span
- Low noise and vibration
- 3 Level speed adjustability
- EBM motor imported from Germany

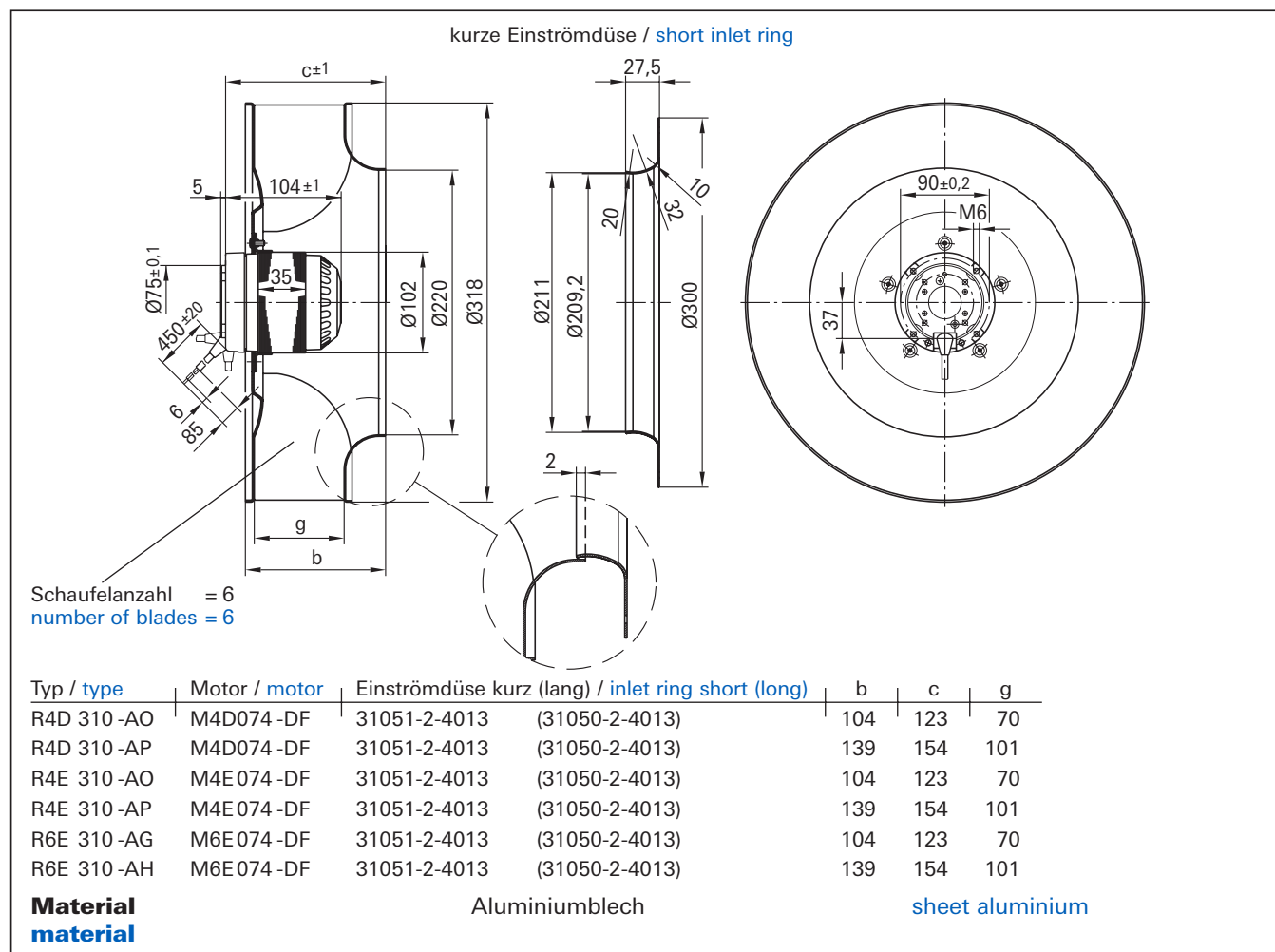
Materials and Operating Conditions

Code	Cabinet Dimension HxWxD (mm)	Filter Dimension HxW (mm)	Casing Material	Motor	Power Supply (V/Hz)	Power (W)
TFF-GSE-2448-08J	615x1225x215	610x1220	Galvalume	EBM	220/50	115
TFF-SSE-2448-08J	615x1225x215	610x1220	Stainless Steel (SUS304)	EBM	220/50	115
TFF-GSE-2347-08J	605x1215x215	610x610	Galvalume	EBM	220/50	115
TFF-GSE-2436-08J	615x920x215	610x915	Galvalume	EBM	220/50	115
TFF-GSF-2424-08J	615x615x215	610x610	Galvalume	Fantech	220/50	173
TFF-SSF-2424-08J	615x615x215	610x610	Stainless Steel (SUS304)	Fantech	220/50	173
TFF-GSF-2323-08J	605x605x215	600x600	Galvalume	Fantech	220/50	173

* Special sizes are available on requested
 * Other materials are available on requested
 * 5 Level speed adjustability is available
 * The noise test is in the standard noise measurement room

Radialventilatoren Ø 310, einseitig saugend

Centrifugal fans Ø 310, single inlet

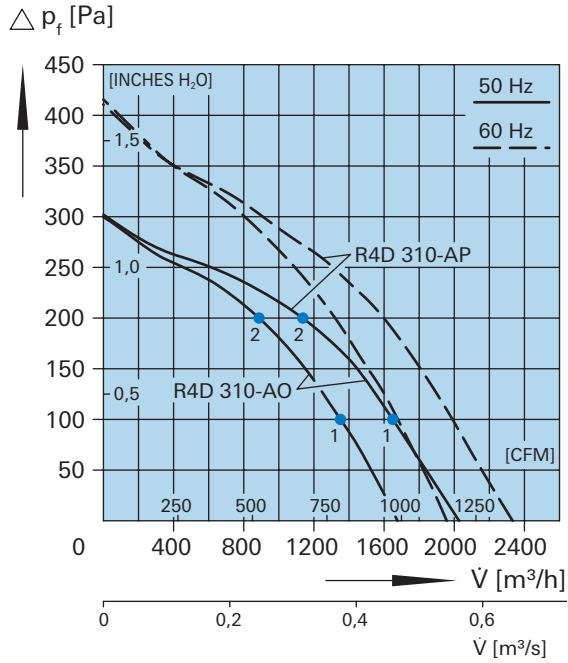


Typ type	Spannung voltage VAC	Frequenz frequency Hz	Luftfördermenge air volume m ³ /h	Drehzahl speed min ⁻¹	Leistungsaufnahme power input W	Stromaufnahme current draw A	Kondensator capacitor µF/VDB	Geräuschpegel noise level dBA	Zul. Umgeb.temp. perm. amb. temp. °C	Masse ca. approx. mass kg
R4D 310 -AO20-01 ⁽¹⁾	230/400	50	1670	1450	93	0,33	---	61	60	3,6
		60	1950	1700	115	0,27	---	66	70	
R4D 310 -AP20-01 ⁽¹⁾	230/400	50	2030	1420	115	0,34	---	60	55	3,8
		60	2330	1640	160	0,31	---	63	50	
R4E 310 -AO12-01	230	50	1670	1450	95	0,46	4,0/400	61	55	3,6
		60	1970	1710	125	0,56	4,0/400	66	50	
R4E 310 -AP11-01 ⁽²⁾	230	50	2080	1390	115	0,52	4,0/400	59	75	3,8
		60	2370	1580	160	0,70	4,0/400	63	50	
R6E 310 -AG40-01	230	50	1090	950	42	0,20	1,5/400	51	75	3,6
		60	1280	1120	52	0,24	1,5/400	55	75	
R6E 310 -AH40-01	230	50	1350	930	45	0,21	1,5/400	50	80	3,8
		60	1560	1070	60	0,27	1,5/400	54	70	

Änderungen vorbehalten
subject to alterations

⁽¹⁾ auf Anfrage in 400 VAC Δ/Y für 2 Drehzahlstufen / 400 VAC Δ/Y three-phase current for two speed levels available on request

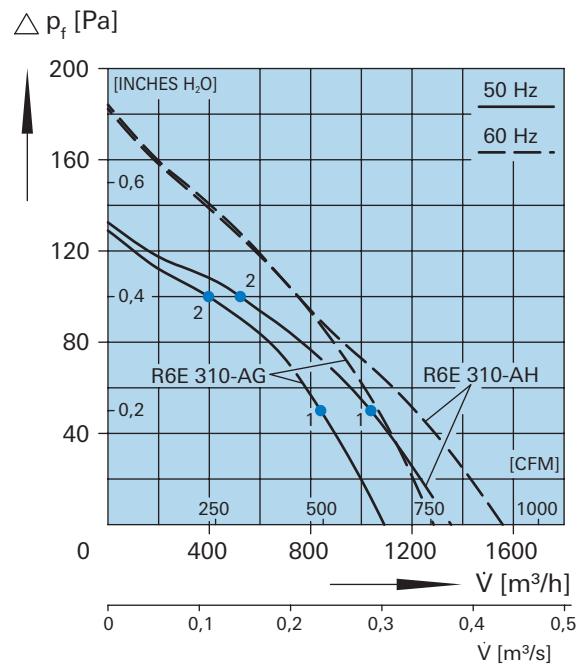
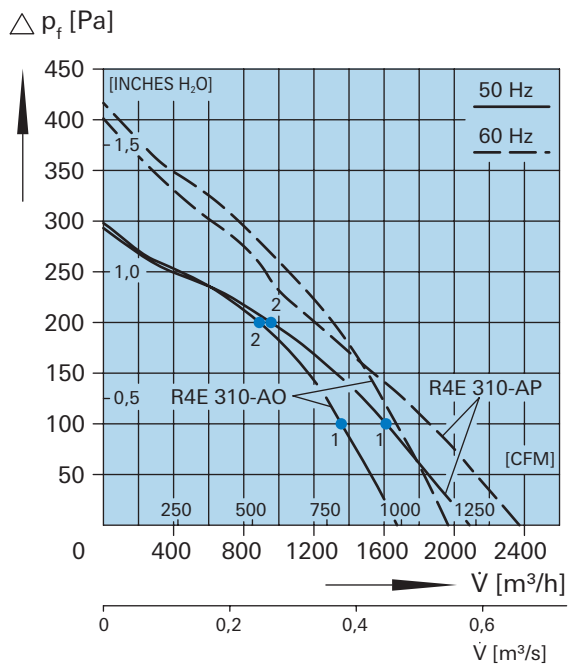
⁽²⁾ Isolationsklasse „F“ / insulation class „F“



Typ type	[Hz]	n [min ⁻¹]	P ₁ [W]	
R4D 310-AO	50	1	1420	114
		2	1420	121
R4D 310-AP	50	1	1400	139
		2	1385	151
R4E 310-AO	50	1	1415	116
		2	1405	121
R4E 310-AP	50	1	1340	138
		2	1335	140

Alle Messwerte mit Kurzdüse ermittelt.
(bei Verwendung der Langdüse können bessere Luftleistungs- und Geräuschwerte erreicht werden)
All data collected via short nozzle.
(using long nozzle, better air performance and noise figures can be attained)

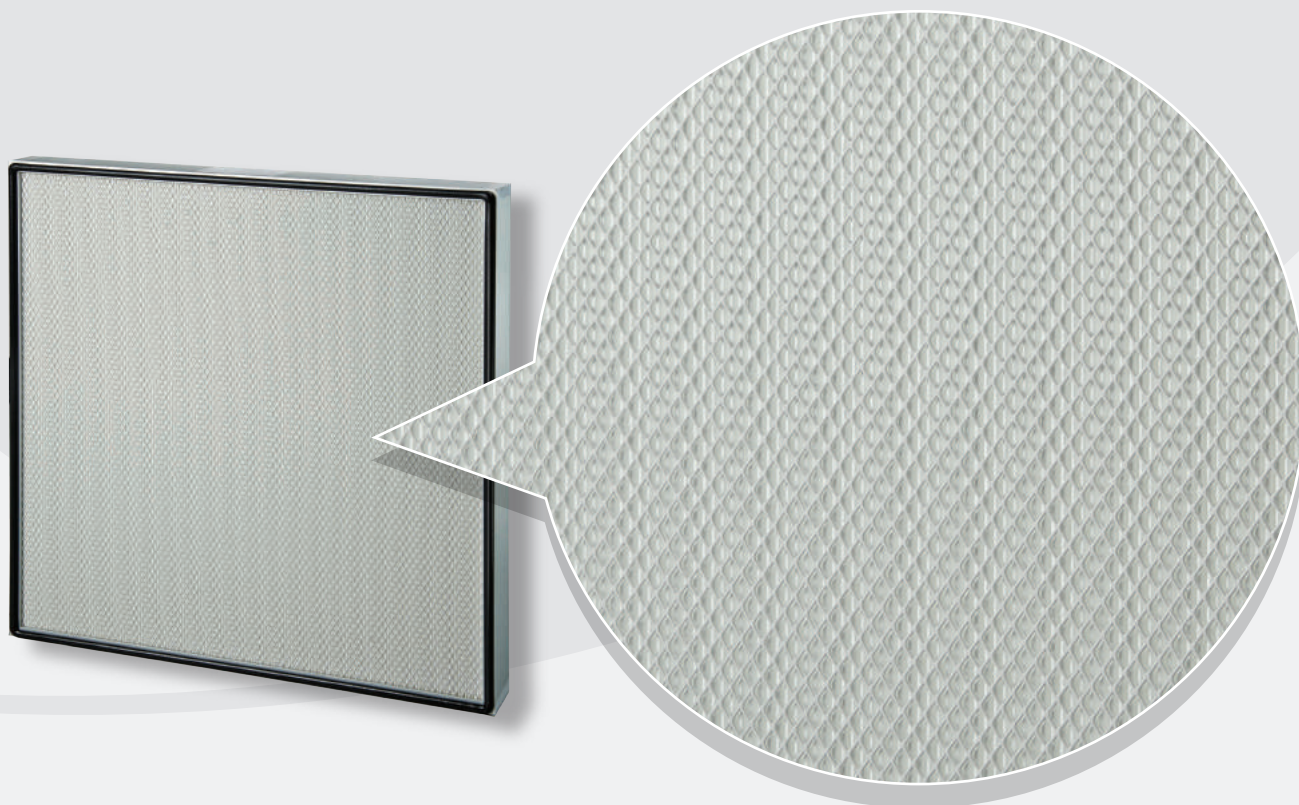
Typ type	[Hz]	n [min ⁻¹]	P ₁ [W]	
R6E 310-AG	50	1	925	47
		2	925	46
R6E 310-AH	50	1	900	52
		2	910	50





Hollingsworth & Vose | HV Media

H&V's high efficiency filtration media offers enhanced properties such as high performance, high strength and low-pressure drop.



High-speed rotary pleaters

- *Lower total cost of ownership*

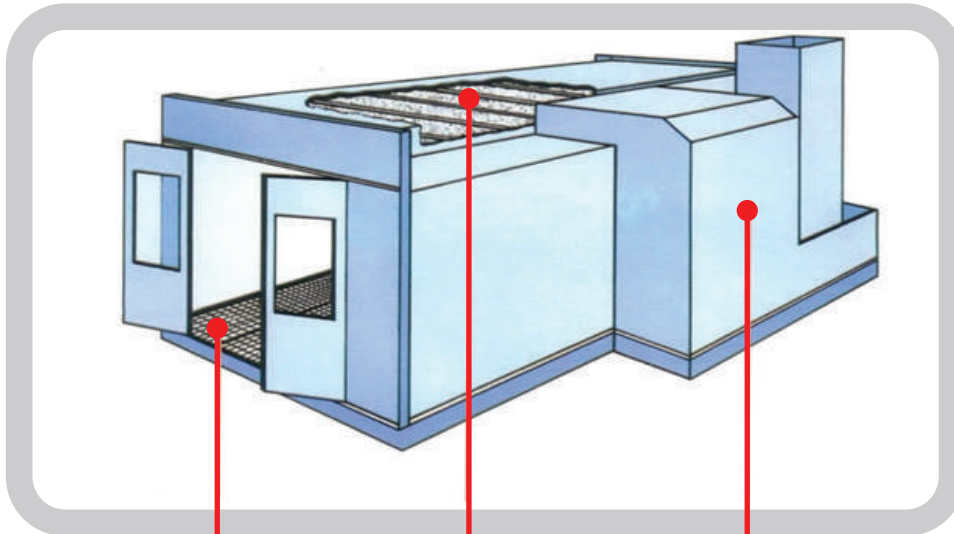
10% to 16% of lower pressure drop than others

- *Longer service life*
- *Greater energy savings with reduced air handling effort*

Easier processability and increased productivity

- *Reduced waste during filter production*

Operating Instruction



1. Floor Filter

100% Glass fiber is capable of heavy holding capacity and high airflow.



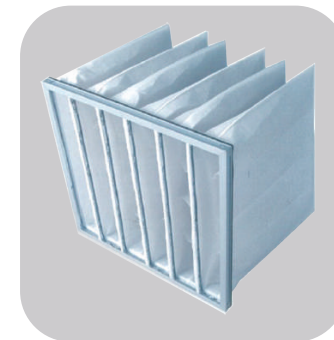
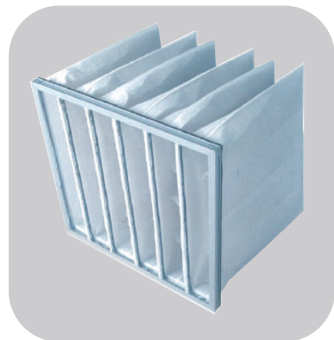
2. Ceiling Filter

100% Polyester where the surface is specially treated with adhesive to improve strength and prevent over spray painting. It offers the ability of spreading airflow.

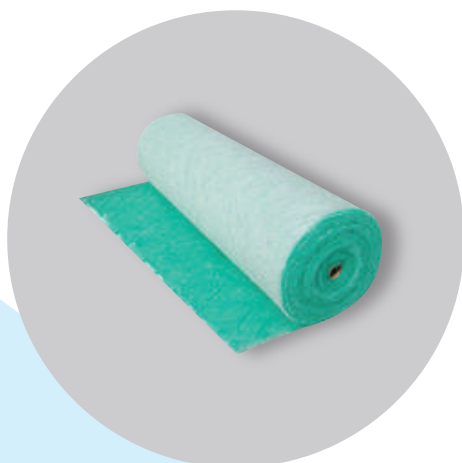
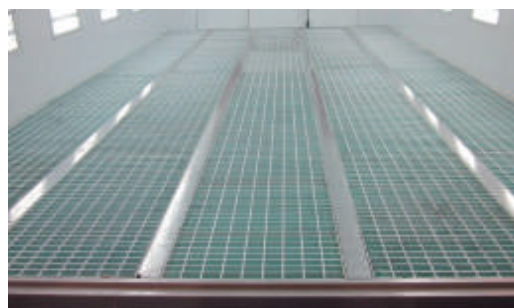


3. Pre/Medium Filter

100% Polyester is capable of providing high performance to collect the coarse dust.



Pre-Filter, Class G2 Roll Filter (Floor Type)



Highlights

- High temperature resistance
- Low resistance
- Light weight
- Wildly used in painting and backing vanish surface treatment industry

Materials and Operating Conditions

Product Code	Media	Size (WxL) (M)	Thick-ness (mm)	Air Filtra-tion Speed (m/s)	Initial Pressure Drop (Pa)	Airflow (CMH)	Filter Class	Arrestance Efficiency (%)	Dust Holding (g/m ²)	Temperature (°C)
X2R-NNG-C000-01N	Glass Fiber	0.75 x 20	50-70	2	8	7200	G2	65-80	250	Up to 180
X2R-NNG-C000-02N	Glass Fiber	0.75 x 20	100	2	12	7200	G2	65-80	350	Up to 180

* All performance data is based on EN 779 standard test

* Other thickness is available on requested

* Other classifications are available on requested

Medium-Filter, Class M5-M6 Roll Filter (Ceiling Type)



Highlights

- High performance of entrapping particles from 1-5 microns
- High dust holding capacity
- Mesh lining applied to improve strength
- Wildly used in painting and backing vanish surface treatment industry

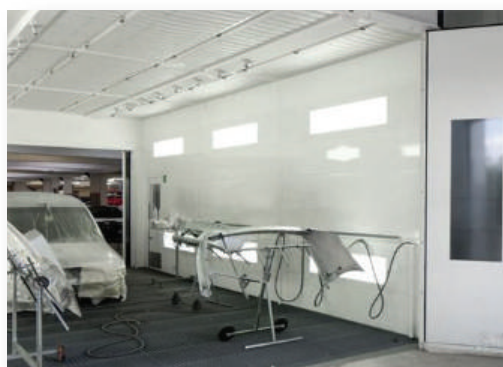
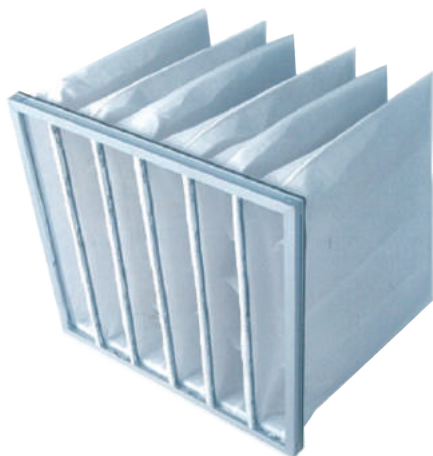
Materials and Operating Conditions

Product Code	Media	Size (WxL) (M)	Thickness (mm)	Initial Pressure Drop (Pa)	Initial Pressure Drop (Pa)	Filter Class	Average Efficiency (%)	Arrestance Efficiency (%)	Dust Holding (g/m ²)	Temperature (°C)
X5R-NNS-C000-10N	Synthetic Fiber	2 x 20	20	44-55	450	M5	40-60	97.5	450	Normal Temperature
X6R-NNS-C000-01N	Synthetic Fiber	2 x 20	20	40	450	M6	60-80	99.6	750	Normal Temperature

- * All performance data is based on EN 779 standard test
- * Other thickness is available on requested
- * Other classifications are available on requested
- * Flame-retardant and glue inside

Medium Filter, Class M5

Pocket Filter



Highlights

- Wildly used in painting and backing varnish surface treatment industry
- Suitable to use as primary and medium filter
- Ultrasonic sealing process Economical and practical
- Fast and easy installation

Materials and Operating Conditions

Product Code	Class	Size (mm)	Media	Frame	Header	No. of pocket	Airflow (CMH)	Pressure Drop (Pa)	Efficiency(%)
Y5P-PPS-2323-24S	M5	592x592x600	synthetic	Plastic	single header	6	3400	<65	40-60
Y5P-PPS-1123-24S	M5	287X592X600	synthetic	Plastic	single header	3	1700	<65	40-60
Y5P-PPS-2323-20S	M5	592X592X500	synthetic	Plastic	single header	6	3400	<65	40-60
Y5P-PPS-1123-20S	M5	287X592X500	synthetic	Plastic	single header	3	1700	<65	40-60

* All performance data is based on EN 779 standard test

* Other thickness is available on requested

* Other classifications are available on requested

* Flame-retardant and glue inside

Scope of ONE STOP SERVICE

- **Professional Site survey and Filter installation service by our TEAM**
- **Cleanroom and HEPA Filter installation leakage Test**
Regular Services

Cleanroom Validation

- HEPA Filter Installation Leakage Test
- Cleanliness Classification Test
- Airflow Volume and Uniformity Test
- Room Pressurization Test
- Temperature and Humidity Uniformity Test

Laminar Air Flow Test (LAF Validation)

- HEPA Filter Installation Leakage Test
- Cleanliness Classification Test
- Air Velocity and Uniformity Test
- Air Pressure Drop Test
- Airflow Visualization Test

Bio Safety Cabinet (Bio II)

- HEPA Filter Installation Leakage Test
- Cleanliness Classification Test
- Air Velocity and Uniformity Test
- Air Pressure Drop Test
- Airflow Visualization Test

Hot Air Oven/ Tunnel

- Empty Chamber Heat Distribution Test
- Heat Distribution Study with Load
- Heat Penetration Study
- Air Velocity and Uniformity Test
- HEPA Filter Installation Leakage Test
- Cleanliness Classification Test

- **Waste disposal**

Lack management and process of waste disposal effect to the destroyed environment
Pollution problem and suffering people.

So after Filter installation and validation is waste disposal process. The method dispose
in secured Landfill or Burning System for environment conservation.



Maintenance of Air Filter

Filter performance depends on appropriate selection, installation, operation, testing, and also maintenance. Maintenance and filter change-out should be performed only when a system is shut down to avoid re-entrainment and system exposure.

The **DO NOT's** of an air filter.

- DO NOT remove an air filter, trap or blow it out to remove the dust out. These will damage the media of filter.
- DO NOT allow water either to pass through or get onto the media. The water will be absorbed into the media resulting in deconstruction of it.
- DO NOT clean the filter with any solvent, oil, or any other cleaners. These will cause damage the media of filter.

The **DO's** of an air filter.

- Determine the change-out schedules by using manometer or other pressure-sensing devices which installed to the system so as to determine the need of filter replacement.
- Check all filters before installation involving voids, tears, or gaps in the filter media and frames as well as visually inspect the seams for total integrity.
- Check the air filter for any damage at least once a week.
- Check the filter housing and also intake manifold for any damage at least once a week in order to observe the clogging of dirt into engine.

Replacement interval of filters

Appropriately measured filtration solution is designed according to the air handling unit's dimension, airflow rate, and indoor air quality targets. Air filter's replacement interval depends on the specific equipment's inner/outer conditions, the desired filtration results, filter material, amount of usage, and energy consumption estimation. If the only used indicator for replacement is pressure drop, it is untrustworthy. It is just guidance when to change a new filter appropriately.

Recently, there is no reference that can indicate the exact life time of replacement interval of filters, even the US standard. Once the filter is clogged, the airflow passing through will decrease significantly resulting in increasing of the energy consumption. Depending on the amount of usage, the recommended replacement interval is different upon each kind of filter. In case of coarse filter, it should be replaced every 3 months, 6 months for medium filter and 12 months or more for the final one.

The replacement interval recommendation is shown below;

Pre- filter (Average Efficiency: 25-30%; Arrestance: $\geq 90\%$)	: 1-3 months
Medium filter (Average Efficiency: 40-95%)	: 6-12 months
Final Filter (Average Efficiency: 85-99.999995%)	: 12 months or more

The replacement interval for final filters is usually a fixed time, for example 12 or 24 months, and it is based on maintaining the cleanliness of the space and the maintenance routines of the facility. More information regarding the extended life time of filter can be said that final filter's will be extended its life time if user change pre- and medium filter punctually. It is also assumed that there is a multistage filtering solution before the final filter. Such a solution prevents final filter from clogging with large particles. If there was no multistage filtering, the final filter would be replaced at least every 12 months or according to differential-pressure measurements.

The Recommended Shelf Life of Filter

Normally, there is no official published document to confirm shelf life of stored filter since there are many factors that may influence its shelf life including the environment of storing area, packaging, and so on.

A general recommendation to extend its shelf life is that, at minimum, filters should be stored in dry climate controlled area with compact packaging, and not placed to any severe conditions as in extreme temperature or humidity.

We cannot guarantee about its exact shelf life, nevertheless; our guideline can merely suggest the appropriate shelf life of HEPA filter is five-ten years approximately. Additionally, four-five years is the proper one in case of pre- and medium filter.