



Nylon Mesh Primary Filter



Areas of application

High airflow, low resistance, repeatable cleaning, long service life, high price.

Performance Characteristics

- Primary filtration for central air-conditioning and household air-conditioning, and ventilation filtration for special acid and alkali resistance.
- Air filtration of clean room return air inlet.
- Nylon mesh filters are mainly used in air conditioning units, equipment fans, motor air inlet or the front end of the ventilation system to filter some large dust particles and mosquitoes.

Design Features

- The inner frame adopts galvanized iron wire as the support frame to ensure the strength of the filter.
- The surface of the support frame is painted black to prevent the iron wire frame from rusting after long-term use, causing secondary pollution of the air conditioning system.
- The support frame is wrapped with nylon mesh on both sides, which can be repeatedly cleaned and reused.

Material composition and operating conditions

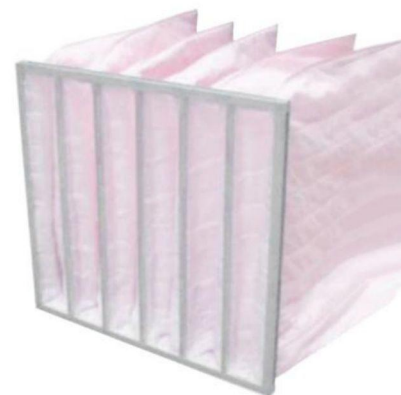
Frame Material	Aluminum Profile/Aluminum Folding Frame/Galvanized Frame/Stainless Steel Frame
Filter material	Nylon Mesh
Support Frame Material	Galvanized iron wire
Maximum temperature	80℃
Maximum humidity	100%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)
592*592*10	3200	0.7	< 20
592*287*10	1600	0.34	
592*490*10	2600	0.58	
592*592*21	3200	0.7	
592*287*21	1600	0.34	
592*490*21	2600	0.58	

Note: In addition to the above dimensions, we can accept non-standard customization.

Pre-filter Bag



Performance

- Large filtration area and high dust capacity.
- High airflow, low resistance and long service life.
- Suitable for use in humid, high airflow and high dust loading environments.

Application

- Ventilation and air-conditioning systems for office buildings, conference rooms, hospitals, gymnasiums, airports and other large civil buildings, and centralized ventilation systems for industrial plants.
- Primary filtration of centralized ventilation and air-conditioning systems for clean rooms.

Design Features

- The primary bag filter mainly blocks dust particles above 2pm, and is made of a composite of polypropylene and synthetic fibers and spunbonded fabrics, assembled with various types of metal frames.
- This bag filter utilizes a sturdy, leak-proof bag design to capture dust escape, with three sealed airflow channels sewn horizontally inside the bag and a thermoplastic sealant glued and sewn hot melt pressing to ensure uniformity of airflow throughout.
- Filtration efficiency class: G3, G4 (EN779).

Material composition and operating conditions

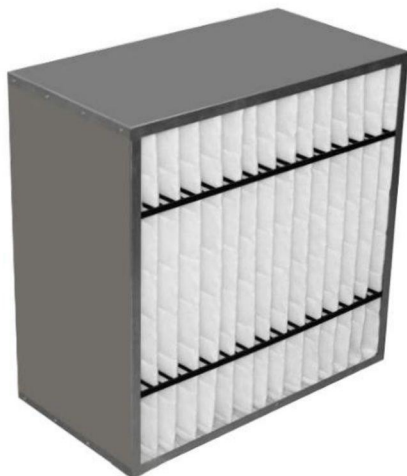
Filter Media	Aluminum Profile/Aluminum Folding Frame/Galvanized Frame/Stainless Steel Frame
Filter material	Synthetic Fiber
Frames	Galvanized iron wire
Filter bag type	Ultrasonic bag/self-stitching bag
Filtration efficiency	G3:85%@2.0um,G4:90%@2.0um
Maximum temperature	80℃
Maximum humidity	100%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Number of bags	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
287*592*381	3	1400	1.58	≈250	<40	100-200	G3
				≈290	<45	150-200	G4
490*592*381	5	2400	2.65	≈430	<40	100-200	G3
				≈480	<45	150-200	G4
592*592*381	6	2850	3.18	≈510	<40	100-200	G3
				≈580	<45	150-200	G4
592*592*381	8	3700	4.09	≈650	<40	100-200	G3
				≈750	<45	150-200	G4
287*592*500	3	1850	2.08	≈330	<40	100-200	G3
				≈380	<45	150-250	G4
490*592*500	5	3100	3.48	≈560	<40	100-200	G3
				≈630	<45	150-250	G4

Note: In addition to the above dimensions, we can accept non-standard customization.

Pre-Filter Box



Performance Characteristics

- Low resistance, high airflow, long service life.
- Large filtering area, high dust capacity.
- Firm structure, can be used normally under the condition of large air volume.

Areas of application

- Primary filtration for industrial and civil ventilation systems.
- Pre-filtration of centralized ventilation and air-conditioning systems for clean rooms.

Design Features

- Box filter is made of synthetic fiber and non-woven filter media.
- Replaceable filter element reduces the cost of use.
- High-strength outer frame with support design increases the strength and durability of the filter.
- Can choose "with flange" and "without flange" two ways of production.
- Optional sealing tape can be installed between the box-type folding filter and the fixed frame to prevent air leakage.
- Filtration efficiency grade: G1, G2, G3, G4 (EN779).

Material composition and operating conditions

Frame Material	Aluminum Profile/Aluminum Folding Frame/Galvanized Frame/Stainless Steel Frame
Filter material	Synthetic Fiber
Support frame material	Galvanized iron wire
Filtration efficiency	G1:40% @ 2.0 μm, G2:65% @ 2.0 μm G3:85% @ 2.0 μm, G4:90% @ 2.0 μm
Maximum temperature	80℃
Maximum humidity	100%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Bags	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	Initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
287*592*381	3	1400	1.58	≈250 ≈290	<40 <45	100-200 150-200	G3 G4
490*592*381	5	2400	2.65	≈430 ≈480 ≈510	<40 <45 <40	100-200 150-200 100-200	G3 G4 G3
592*592*381	6	2850	3.18	≈580 ≈650	<45 <40	150-200 100-200	G4 G3
592*592*381	8	3700	4.09	≈750 ≈330 ≈380	<45 <40 <45	150-200 100-200 150-250	G4 G3 G4
287*592*500	3	1850	2.08	≈560 ≈630	<40 <45	100-200 150-250	G3 G4
490*592*500	5	3100	3.48				

Note: In addition to the above dimensions, we can accept non-standard customization.

Pre-filter Bag



Performance

- The filter has good chemical resistance, high heat resistance, low moisture absorption filter capacity.
- High dust capacity, long service life and non-flammability.

Application

- General primary filtration, hot air type high temperature oven air filtration
- Paint factory high temperature oven air filtration

Design Features

I. Design features of flat plate high temperature resistant filter

- Made of domestic or imported long glass fibers, laminated in a non-textile way. The strength and elasticity of the fibers are good, and the filter material is not compressed together due to wind resistance, which affects the dust holding capacity. The filter material is flatly laid inside the filter and supported by metal mesh on both sides.
- Temperature resistance of the filter: 400-450℃.
- Filtration level: G4, F5.

II. Performance Characteristics

- The filter has good chemical resistance, high heat resistance, low moisture absorption filter dust holding capacity.
- High, long service life, and non-combustibility.

I. Folded high temperature resistant filter design features

- The filter material is folded with galvanized iron wire mesh or stainless steel mesh on both sides, with good strength, the filter material is not easy to be blown through the galvanized square mesh, galvanized square mesh, stainless steel square mesh on both sides for reinforcement, and it can be used normally under the environment of large air volume.
- Filter temperature: 250-300℃.
- Filtration level: G3.

II. Performance characteristics

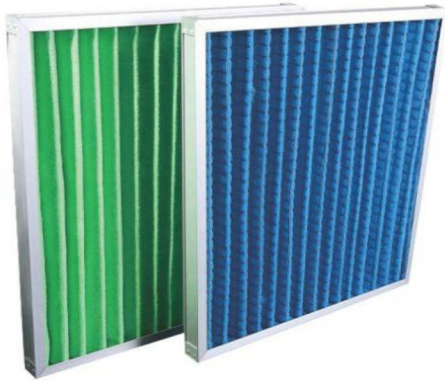
- Large filter area and long service life of the filter media.
- Large air volume, low initial resistance, and non-flammability.

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	Initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
592*592*21	2400	0.9	≈150	≤ 40	100-200	G3
287*592*21	1200	0.44	≈70			
490*592*21	2050	0.76	≈120			
592*592*46	2600	0.97	≈160			
287*592*46	1400	0.51	≈80			
490*592*46	2150	0.8	≈130			

Note: In addition to the above dimensions, we can accept non-standard customization.

Folding Pre-Filter



Performance Characteristics

- Large filtration area and long service life
- High airflow, low resistance, high dust capacity.

Areas of application

Primary filtration for air-conditioning systems, pre-filtration for multi-stage filtration systems, air filtration in general acid-base organic solvents

Design Features

- The welded wire mesh has a rust-resistant surface treatment that holds the pleated structure in place.
- The galvanized iron mesh is attached to the airflow surface of the filter media, which protects the filter media from being blown through and prevents the filter media from being deformed due to excessive wind pressure, and ensures that all surfaces of the filter media are fully utilized.
- The gradual structure provides the maximum filtration area for the airflow, and the filtration area of the folded filter is 5 times larger than that of a normal flat filter.
- Common or moisture-proof paper frames can be used, and the paper frame filters can be incinerated after use, which is pollution-free and meets the requirements of environmental protection.
- Filtration efficiency level: G1, G2, G3, (G4 EN779).

Material composition and operating conditions

Frame Material	Aluminum Profile/Aluminum Folding Frame/Galvanized Frame/Stainless Steel Frame
Filter material	Synthetic Fiber
Support Frame Material	Sprayed galvanized iron wire
filtration efficiency	G1:40% @ 2.0μm, G2:65% @ 2.0μm G3:85% @ 2.0μm, G4:90% @ 2.0μm
Maximum temperature	80℃
Maximum humidity	100%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
592*592*46	2600	0.97	≈110	≤25	100-200	G1
			≈130	≤30	100-200	G2
			≈160	≤40	100-200	G3
			≈200	≤45	150-250	G4
287*592*46	1600	0.44	≈90	≤25	100-200	G1
			≈110	≤30	100-200	G2
			≈130	≤40	100-200	G3
			≈160	≤45	150-250	G4

Note: In addition to the above dimensions, we can accept non-standard customization.

Folding Activated Carbon Filter



Performance

- Light weight and strong ventilation.
- Large specific surface area, strong adsorption performance, and strong removal effect on low concentration of organic pollutants and odors.

Application

Treatment of odors and polluted air in air conditioning and ventilation systems, adsorption and removal of harmful gases (e.g. benzene, formaldehyde, ammonia, etc.), and recovery of solvents.

Design Features

- The welded wire mesh has a rust-resistant surface treatment that holds the linear pleated structure in place.
- The galvanized iron mesh is attached to the air outlet surface of the filter material, which can protect the filter material from being blown through, prevent the filter material from being deformed due to excessive wind pressure, and ensure that all the surface of the filter material is fully utilized. Adopting synthetic fiber as the base material and adding coconut shell activated carbon powder to make activated carbon fiber.

Material composition and operating conditions

Frames	Aluminum Profile/Aluminum Folding Frame/Galvanized Frame/Stainless Steel Frame
Filter material	Fiber activated carbon
Strainer Material	Galvanized welded wire mesh/aluminum mesh/stainless steel mesh
Filtration efficiency	≥ 70%
Maximum temperature	80℃
Maximum humidity	100%

Product dimensions and specific parameters

Size (W*H*D)(mm)	Air volume(m³/h)	Filter area (m²)	initial resistance (Pa)	Odor removal rate
592*592*21	1150	0.93	< 40	≥70%
490*592*21	1000	0.77		
287*592*21	600	0.47		
592*592*46	1250	0.97		
490*592*46	1100	0.86		
287*592*46	650	0.52		
592*592*50	1350	1.06		
490*592*50	1150	0.93		
287*592*50	700	0.56		

Note: In addition to the above dimensions, we can accept non-standard customization.

Primary Cleaner/Replaceable Filter



Performance Characteristics

- Convenient replacement of filter media, can be repeatedly cleaned and reused.
- Large air volume, low resistance, long service life.

Areas of application

- Ventilation and air-conditioning systems for office buildings, conference rooms, hospitals, shopping malls, airports and other large civil buildings.
- Pre-filtration of centralized ventilation and air-conditioning systems for common industrial plants or clean rooms.

Design Features

- Sturdy and removable outer frame: Adopting a sturdy aluminum alloy frame with aluminum alloy corner fixing, the structure is sturdy and panning to ensure that the filter will not be deformed or damaged even under poor working conditions, and the outer frame adopts a removable design to facilitate the replacement of the filter material to achieve the purpose of reusing the frame.
- The filter mesh adopts special reinforcement, which further enhances the sturdiness of the filter. At the same time, the balanced spacing and double reinforcement design ensures that the filter mesh is of equal pleat shape, so that the filter can achieve the maximum dust capacity at the time of minimum resistance.
- The filter media is made of high quality polyester synthetic fiber, which can be washed and reused many times and has a long service life.
- The fluffy and densely packed fiber structure ensures high dust collection rate and large dust holding capacity, which effectively prolongs the service life of the back-end intermediate filters with filtration efficiency grade: G1, G2, G3, G4 (EN779).

Material composition and operating conditions

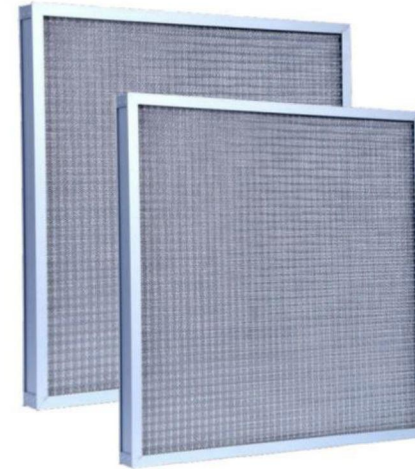
Frame Material	Aluminum Profile/Aluminum Folding Frame/Galvanized Frame/Stainless Steel Frame
Filter material	Synthetic Fiber
Support Frame Material	Sprayed galvanized iron wire
filtration efficiency	G1:40% @ 2.0μm, G2:65% @ 2.0μm G3:85% @ 2.0μm, G4:90% @ 2.0μm
Maximum temperature	80℃
Maximum humidity	100%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
592*592*46	3200	0.82	≈90	≤30	100-200	G1
			≈110	≤35	100-200	G2
			≈130	≤45	100-200	G3
			≈170	≤50	150-250	G4
			≈50	≤30	100-200	G1
287*592*46	1600	0.44	≈60	≤35	100-200	G2
			≈70	≤45	100-200	G3
			≈90	≤50	150-250	G4

Note: In addition to the above dimensions, we can accept non-standard customization.

Metal Mesh Pre-filter



Performance

High airflow, low resistance, repeatable cleaning and long service life.

Application

Central air-conditioning hood and primary filtration, special acid, alkali or high temperature ventilation filtration.

Design Features

- The filter consists of different sizes of corrugated aluminum mesh, staggered in the inner frame.
- It reduces the gap between the aluminum mesh and provides better filtration.
- For acid, alkali or high temperature resistant environments, stainless steel outer frame and stainless steel corrugated mesh are available.

Material composition and operating conditions

Filter material	Aluminum/stainless steel mesh
Frames	Aluminum profile frame, aluminum folding frame, galvanized frame, stainless steel frame
Maximum temperature	400℃
Maximum humidity	100%

Product dimensions and specific parameters

Size (W*H*D)(mm)	Air volume (m³/h)	Filter area (m²)	Initial resistance(Pa)
592*592*21	3200	1.05	< 20
592*287*21	1600	0.51	
592*490*21	2600	0.87	
592*592*46	3200	3.15	
592*287*46	1600	1.53	
592*490*46	2600	2.61	
592*592*50	3200	3.86	
592*287*50	1600	1.87	
592*490*50	2600	3.2	

Note: In addition to the above dimensions, we can accept non-standard customization.

Medium Effect Fiberglass Bag Filter



Performance Characteristics

- Large filtration area and high dust holding capacity.
- High airflow, low resistance and long service life.
- Suitable for long-term use in environments below 150°C.

Areas of application

- Suitable for filtration of paint, viscose, resin dye, ink and oil products, chemicals and other industries.
- Intermediate filtration for centralized ventilation and air-conditioning systems in clean rooms

Design Features

- The medium-effect glass fiber bag filter greatly improves the use of the filter with its unique high dust capacity structure.
- The life of the filter is made of American JM glass fiber filter media, which guarantees the effective operation of the filtration system.
- Flame retardant performance is good, up to UL-2 level standard, ideal for fire certified enterprises.
- Filtration efficiency grade: F5, F6, F7, F8 (EN779)

Material composition and operating conditions

Frame Material	Aluminum Profile/Aluminum Folding Frame/Galvanized Frame/Stainless Steel Frame
Filter material	Fiberglass
Filter bag material	Self-sewn bag
Support Frame Material	Galvanized iron wire
Filtration efficiency	F5:45% @ 0.5 μm, F6:65% @ 0.5 μm F7:85% @ 0.5 μm, F8:90% @ 0.5 μm, F9:95% @ 0.5 μm
Maximum temperature	150°C
Maximum humidity	100%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Bags	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	Initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
287*592*381	3	1000	1.58	≈ 380	< 50	250-300	F5
				≈ 330	< 65	250-300	F6
				≈ 290	< 80	300-400	F7
				≈ 250	< 100	300-400	F8
				≈ 630	< 50	250-300	F5
490*592*381	5	1700	2.65	≈ 560	< 65	250-300	F6
				≈ 480	< 80	300-400	F7
				≈ 420	< 100	300-400	F8
				≈ 740	< 6	250-300	F5
				≈ 660	< 65	250-300	F6
592*592*381	6	2050	3.18	≈ 590	< 80	300-400	F7
				≈ 500	< 100	300-400	F8

Note: In addition to the above dimensions, we can accept non-standard customization.

Medium Effect Synthetic Fiber Bag Filter



Performance

- Large filtration area and high dust holding capacity.
- High airflow, low resistance and long service life.
- Suitable for use in humid, high airflow and high dust loading environments

Application

- Widely used in pharmaceutical, automobile and food manufacturing industries, commercial buildings and various industrial ventilation systems.
- Intermediate filtration in centralized ventilation and air conditioning systems for clean rooms.

Design Features

- With its unique bag structure, the medium efficiency bag filter ensures that the airflow is evenly filled throughout the bag; the unique heat fusion technology prevents overcrowding or leakage between the bags, which reduces the resistance and maximizes the dust holding capacity.
- The reinforced "bag support grille" prevents the filter from shrinking or bending under extremely poor working conditions.
- Our company has national standard bag type and European standard bag type filter media for customers to choose, customers can choose different filter media according to different cost-effective to ensure the effective operation of the filtration system.
- Filtration efficiency grade: F5, F6, F7, F8, F9 (EN779).

Material composition and operating conditions

Frames	Aluminum Profile/Aluminum Folding Frame/Galvanized Frame/Stainless Steel Frame
Filter material	Synthetic Fiber
Filter bag material	Ultrasonic bag
Support Frame Material	Galvanized iron wire
Filtration efficiency	F5:45% @ 0.5 μm, F6:65% @ 0.5 μm F7:85% @ 0.5 μm, F8:90% @ 0.5 μm, F9:95% @ 0.5 μm
Maximum temperature	80°C
Maximum humidity	100%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Bags	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	Initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
287*592*381	3	1000	1.58	≈ 290	< 50	250-300	F5
				≈ 250	< 65	250-300	F6
				≈ 220	< 80	300-400	F7
				≈ 190	< 100	300-400	F8
				≈ 180	< 120	400-450	F9
490*592*381	5	1700	2.65	≈ 480	< 50	250-300	F5
				≈ 430	< 65	250-300	F6
				≈ 370	< 80	300-400	F7
				≈ 320	< 100	300-400	F8
				≈ 290	< 120	400-450	F9

Note: In addition to the above dimensions, we can accept non-standard customization.

Combined Activated Carbon Filter



Performance Characteristics

- Large air volume, easy to install.
- Large specific surface area, high carbon content, long service life.
- Strong adsorption performance, can quickly remove all kinds of harmful gases in the air.

Areas of application

Central air-conditioning, centralized ventilation systems and various places with extremely high pollution concentrations, etc.

Design Features

- It is assembled by several pieces of activated carbon filters.
- The filter material adopts granular activated carbon as the adsorption substrate, which is filled in the fixed frame, and each piece of activated carbon filter adopts black non-woven fabric cover, and is supported by the sprayed diamond shaped protective net on both sides.
- The activated carbon filter is placed in the outer frame in a "V" shape structure and sealed with PU polyurethane adhesive between the frame.
- The high carbon content of activated carbon greatly improves the performance of odor removal and extends the service life of the filter.

Material composition and operating conditions

Frame Material	Coal granular activated carbon, coconut shell crushed carbon
Filter material	PU two-component polyurethane AB adhesive
Filter bag material	Plastic frame, aluminum frame, galvanized frame, stainless steel frame
Protective netting	Plastic spraying diamond mesh
sealing strip	EVA, neoprene
Odor removal rate	≥95 %
Maximum temperature	80°C
Maximum humidity	80 %

Product dimensions and specific parameters

Size(W*H*D)(mm)	Activated carbon(Kg)	Odor removal rate(%)	Frame material	Number of compartments	Resistance	Airflow(m³/h)
592*287*292	12.3	≥95	ABS塑料	四隔八面	< 200	1550
592*592*292	27.1			四隔八面		3500
592*490*292	22.2			四隔八面		2800
592*287*292	13.8		镀锌框	四隔八面		1800
592*592*292	28.9			四隔八面		3700
592*490*292	23.9			四隔八面		3100
592*287*292	17.3		不锈钢框	五隔十面		2250
592*592*292	36.1			五隔十面		4650
592*490*292	29.8		铝框	五隔十面		3850

Note: In addition to the above dimensions, we can accept non-standard customization.

Plastic Frame Combined Medium Effect Filter



Performance

- Large air volume, low resistance
- Light weight, easy installation
- Large filtering area and long service life

Application

- Intermediate filtration for industrial and civil ventilation systems.
- Intermediate filtration for centralized ventilation and air-conditioning systems in clean rooms.

Design Features

- Mainly used for filtering airborne particles above 0.5μm, as an intermediate filtration for air conditioning systems, designed to achieve high airflow requirements at low resistance.
- High dust holding capacity, the filter media is made of polypropylene PP phase-sprayed fiber or microfiberglass filter paper, separated by hot melt adhesive.
- The thermoplastic spacer ensures the same pleat spacing, guaranteeing optimal airflow through with minimum resistance. The same pleat spacing fully utilizes the entire depth of the filter media, guaranteeing a higher dust holding capacity.
- Polypropylene vinyl plastic outer frame, fully incinerable for waste disposal.
- With mounting flange frame, interchangeable with commonly used bag filters.
- Filtration efficiency class:F6, F7, F8, F9(EN779).

Material composition and operating conditions

Frames	Aluminum profile/aluminum folded frame/galvanized frame/stainless steel frame.
Filter material	Polypropylene PP meltblown fiber or microfiberglass filter paper.
Frame Sealant	PU two-component polyurethane AB adhesive.
Filter bag material	Ultrasonic bag/self-sewn bag.
protective netting	Plastic spraying diamond mesh.
Dividers	EVA hot melt adhesive.
Sealing tape	EVA. Ammonia Butadiene Rubber.
Filtration efficiency	F6:65% @ 0.5μm, F7:85% @ 0.5μm F8:90% @ 0.5μm, F9:95% @ 0.5μm
Maximum temperature	70°C
Maximum humidity	80 %

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Bags	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
287*287*292	2	900	4.63	≈ 280	≤ 60	250 ~ 300	F6
					≤ 80	300 ~ 400	F7
					≤ 100	300 ~ 400	F8
					≤ 120	400 ~ 450	F9
592*592*292	3	2850	15.03	≈ 900	≤ 60	250 ~ 300	F6
					≤ 80	300 ~ 400	F7
					≤ 100	300 ~ 400	F8
					≤ 120	400 ~ 450	F9

Note: In addition to the above dimensions, we can accept non-standard customization.

Combined High Efficiency Filter



Performance Characteristics

- High efficiency, large filtering area, long service life.
- Large air volume, low resistance.
- Light weight, easy installation.

Design Features

- Mainly used for filtering airborne particles above 0.3um, as the end filtration of air conditioning systems, designed to achieve high airflow requirements at low resistance.
- High dust holding capacity, non-spacer design: The filter media is made of ultra-fine glass fiber filter paper, separated by thermosol.
- The thermoplastic spacer ensures the same pleat spacing to ensure optimal airflow through with minimum resistance. The same pleat spacing fully utilizes the entire depth of the filter media to ensure a higher dust holding capacity.
- High airflow types Compared with ordinary high-efficiency filters, fewer filters can be used under the same airflow to reduce the cost Reduced rubber frame air inlet surface with 20*25mm flange for easy installation.
- Each filter is strictly tested.
- Filtration yield class: H13, H14 (EN1822).

Application

Terminal filtration of air conditioning units, large air volume air purification equipment

Material composition and operating conditions

Filter Media	Ultra-fine glass fiber filter paper
Sealant	PU two-component polyurethane A B glue
Frames	ABS plastic frame
Protective Mesh	Spraying diamond mesh
Separators	EVA hot melt adhesive
Sealant	EVA or neoprene
Filtration efficiency	H13: 99.97-99.99% @ 0.3 μm H14: 99.995-99.999% @ 0.3 μm
Maximum temperature	70 °C
Maximum humidity	80 %

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Bags	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
287*287*292	2	550	4.63	≈280	≤200	400-600	H13
					≤220	400-600	H14
592*592*292	3	1900	15.03	≈900	≤200	400-600	H13
					≤220	400-600	H14
592*592*292	4	2500	20.04	≈1200	≤200	400-600	H13
					≤220	400-600	H14
592*490*292	4	2050	16.44	≈1000	≤200	400-600	H13
					≤220	400-600	H14
592*287*292	4	1150	9.26	≈550	≤200	400-600	H13
					≤220	400-600	H14

Note: In addition to the above dimensions, we can accept non-standard customization.

DOP Integrated Filter



Performance

- Strong ventilation, beautiful appearance, easy installation and replacement, good sealing performance.
- Large air volume, low resistance, light weight, thin thickness, high filtration efficiency.

Design Features

- It is mainly used for filtering air suspended particles above 0.3um, as the end filtration of various filtration systems.
- The frame is made of aluminum plate folding frame and galvanized frame, which is light in weight, easy to carry and install, and suitable for installation in the clean room with aluminum alloy keel.
- Containing air inlet pipe, the diameter of air inlet pipe can be selected from 250, 300, Ø350.
- Closed structure to prevent internal gaps and leakage.
- Air inlet with air volume adjustment valve below, the air supply process can be swinging direction, to play a better backlash and equalization of the role of the flow.
- The filter consists of two pieces of filter media, the middle of which is fixed by a special block, and the middle of the block on the air outlet side is equipped with a DOP test port, which is sealed by a rubber plug to ensure that it can meet the conditions of high-standard testing.
- The air outlet side is protected by a metal mesh.
- Four screws on the cover plate are used for ceiling mounting of the filter.
- The outside of the box is covered with PEF insulation foam, which has good heat preservation performance.
- Particularly suitable for cleanrooms where the height of civil construction is limited or compact design is necessary, greatly saving space.
- Each filter is strictly tested.
- Filtration efficiency class: H13-H14 (EN1822).

Application

Widely used in hospital operating rooms, laboratories, pharmaceutical laboratories, microelectronics, film and fiber optic equipment and food processing plants and other working environments with high cleanliness requirements.

Material composition

Filter Media	Ultra-fine glass fiber filter paper
Sealant	PU two-component polyurethane
Frames	A B glue aluminum frame, galvanized frame, stainless steel frame
Protective Mesh	Spraying diamond mesh
Separators	EVA hot melt adhesive
Sealant Strips	EVA or neoprene
Filtration efficiency	H13: 99.97-99.99% @ 0.3 μm H14: 99.995-99.999% @ 0.3 μm
Maximum temperature	70 °C
Maximum humidity	80 %

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
610*610*120	1000	11.32	≈680	≤200 ≤220	400-600	H13
915*610*120	1500	16.71	≈1000	≤200 ≤220	400-600	H14
1170*570*120	1800	19.79	≈1200	≤200 ≤220	400-600	H13
1220*610*120	2000	22.1	≈1350	≤200 ≤220	400-600	H14
610*610*150	1250	14.14	≈850	≤200 ≤220	400-600	H13
915*610*150	1900	20.88	≈1250	≤200 ≤220	400-600	H14
1170*570*150	2200	24.74	≈1500	≤200 ≤220	400-600	H13

Note: In addition to the above dimensions, we can accept non-standard customization.

Hepa Filter With Partition



Areas of application

Widely used in electronic factories, semiconductors, precision machinery, pharmaceuticals, hospitals, food and other industries, high-level purification equipment, purification system end filtration components, local purification equipment and clean plant.

Design Features

- Mainly used for filtering air suspended particles above 0.3um, as the end filtration of various filtration systems.
- The filter media is made of ultra-fine glass fiber filter paper, folded with plastic board paper, aluminum foil board and other materials for separation.
- Corrugated paper or aluminum dividers keep each pleated paper equally spaced, making it easy for airflow to pass through, ensuring efficient use of filter media and increasing strength.
- The filter media is folded 180 degrees on both sides to form a wedge-shaped pleated house, and the wedge-shaped box pleated house can prevent the filter media from being broken. If a single indentation or roller-scarred filter media pleated layer is used, the filter media will be easily damaged by the sharp folded top of the corrugated bulkhead.
- Filter surroundings are sealed with special sealant to ensure the sealing of the whole filter.
- Each filter has been strictly tested
- Filtration efficiency grade: H13, H14 (EN1822)

Performance Characteristics

- Large filtration area and long service life
- Large air volume, low resistance, high dust capacity.
- High filtration efficiency, good air velocity uniformity

Material composition and operating conditions

Filter Media	Ultra-fine glass fiber filter paper
Sealant	PU two-component polyurethane AB adhesive
Frames	Aluminum profile frame, aluminum folding frame, galvanized frame, stainless steel frame, wooden frame
Protective Mesh	No
Compartment	120g/m3 plywood or 0.035mm thick aluminum foil
sealing tape	EVA or oxybutylene rubber
Filtration efficiency	H13:99.97-99.99% @ 0.3 μm H14:99.995-99.999% @ 0.3 μm
Maximum temperature	80 °C
Maximum humidity	80 %

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (㎡)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
320*320*150	250	2.59	≈160	≤200 ≤220	400-600	H13
484*484*150	600	6.0	≈360	≤200 ≤220	400-600	H14
610*610*150	1000	9.59	≈580	≤200 ≤220	400-600	H13
915*610*150	1500	14.38	≈860	≤200 ≤220	400-600	H14
1220*610*150	2000	19.17	≈1150	≤200 ≤220	400-600	H13
320*320*220	500	4.08	≈250	≤200 ≤220	400-600	H14
484*484*220	1000	9.46	≈570	≤200 ≤220	400-600	H13

Note: In addition to the above dimensions, we can accept non-standard customization.

Hepa Filter Without Partition



Performance Application

- High efficiency and low resistance
 - Light weight and thin thickness
 - Easy to install, low running cost
- Widely used in electronics, medicine, food, semiconductor manufacturing, atomic force research, precision machinery, cosmetics and other applications requiring high cleanliness.

Design Features

- It is mainly used for filtering air suspended particles above 0.3um, as the unterminal filtration of various filtration systems.
- The filter media is made of ultra-fine glass fiber filter paper separated by thermoplastic spacers.
- This design reduces running costs and the spacerless thermoplastic spacer ensures the same pleat layer spacing for optimum airflow through. A high dust holding capacity is achieved, making full use of the filter media throughout the entire depth of the filter.
- The outer frame is anodized for added rigidity and durable corrosion protection.
- All sides of the filter are sealed with special sealant to ensure the sealing of the entire filter.
- Sprayed plastic guards are added to the inlet and outlet surfaces of the filter to protect the filter paper from damage. Each filter is strictly tested.
- Filtration efficiency grade: H13, H14 (EN1822).

Material composition and operating conditions

Filter Media	Ultra-fine glass fiber filter paper
Sealant	PU two-component polyurethane AB adhesive
Frames	Aluminum profile frame, aluminum folding frame, galvanized frame, stainless steel frame, wooden frame
Protective Mesh	No
Compartment	120g/m3 plywood or 0.035mm thick aluminum foil
sealing tape	EVA or oxybutylene rubber
Filtration efficiency	H13:99.97-99.99% @ 0.3 μm H14:99.995-99.999% @ 0.3 μm
Maximum temperature	70 °C
Maximum humidity	80 %

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (㎡)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
320*320*50	200	1.99	≈120	≤200 ≤220	400-600	H13
484*484*50	450	4.51	≈270	≤200 ≤220	400-600	H14
610*610*50	700	7.13	≈430	≤200 ≤220	400-600	H13
915*610*50	1000	10.58	≈650	≤200 ≤220	400-600	H14
1170*570*50	1200	12.57	≈750	≤200 ≤220	400-600	H13
1220*610*50	1350	14.04	≈850	≤200 ≤220	400-600	H14
320*320*69	250	2.89	≈180	≤200 ≤220	400-600	H13

Note: In addition to the above dimensions, we can accept non-standard customization.



Knife -Stand - Type Baffle - Free Hepa Filter



Performance Characteristics

- High efficiency, low resistance, large dust capacity
- Easy installation, good sealing performance

Areas of application

Suitable for all kinds of vertical air supply clean plant terminal filtration.

Design Features

- It is mainly used for filtering air suspended particles above 0.3μm, as the unterminal filtration of various filtration systems.
- The filter media is made of ultra-fine glass fiber filter paper with thermoplastic spacers as separators.
- This design reduces operating costs. The spacerless thermoplastic spacer ensures the same pleat layer spacing, which guarantees optimal airflow through the filter to achieve a high dust holding capacity, making full use of the filter media throughout the entire depth of the filter.
- The filter is sealed on all sides with a special sealant to ensure a tight sealing of the entire filter.
- The air inlet and outlet surfaces of the filter are equipped with plastic-sprayed protective mesh to protect the filter paper from being damaged.
- The air outlet side of the filter has a certain length of knife edge.
- Each filter is strictly tested.
- Filtration efficiency class:H13, H14(EN1822).

Material composition and operating conditions

Filter Media	Ultra-fine glass fiber filter paper
Sealant	PU two-component polyurethane A B adhesive
Frames	Aluminum profile frame
Protective Mesh	Spraying diamond mesh
Compartment	EVA hot melt adhesive
Sealing tape	EVA or Neoprene
Filtration efficiency	H13:99.97-99.99% @ 0.3 μm H14:99.995-99.999% @ 0.3 μm
Maximum temperature	70℃
Maximum humidity	80%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (㎡)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
320*320*110	400	4.16	≈250	≤200	400-600	H13
				≤220		H14
484*484*110	900	9.42	≈570	≤200	400-600	H13
				≤220		H14
610*610*110	1450	14.9	≈900	≤200	400-600	H13
				≤220		H14
915*610*110	2150	21.22	≈1330	≤200	400-600	H13
				≤220		H14
1220*610*110	2850	29.33	≈1760	≤200	400-600	H13
				≤220		H14

Note: In addition to the above dimensions, we can accept non-standard customization.

Liquid Bath Type Baffle Less Hepa Filter



Areas of application

Suitable for all kinds of vertical air supply clean plant terminal filtration.

Design Features

- It is mainly used for filtering air suspended particles above 0.3μm, as the unterminal filtration of various filtration systems.
- The filter media is made of ultra-fine glass fiber filter paper separated by thermosol.
- This design reduces running costs. The thermoplastic spacer without dividers ensures the same pleat layer spacing, which guarantees optimal airflow through the filter to achieve a high dust holding capacity, making full use of the filter media throughout the entire depth of the filter.
- The filter is sealed on all sides with a special sealant to ensure a tight sealing of the entire filter.
- Plastic spraying protective mesh is added to the inlet and outlet surfaces of the filter to protect the filter paper from being damaged.
- The air outlet side of this filter has a flange, and the inside of the flange is filled with liquid tank sealant, which will greatly enhance the sealing performance.
- The sealant in the tank is a non-Newtonian liquid, which has the advantages of non-volatile, non-climbing oil, acid and alkali resistance, non-toxic and odorless. And has good flame retardant and stable electrical insulation properties.
- Because the air outlet side of the filter is with flange, the size of the air inlet side and the air outlet side are not the same, customers need to provide the size of the air inlet and outlet sides when ordering. Each filter is strictly tested.
- Filter efficiency grade: H13, H14 (EN1822).

Performance Characteristics

- High efficiency, low resistance, large dust capacity
- Easy installation, good sealing performance

Material composition

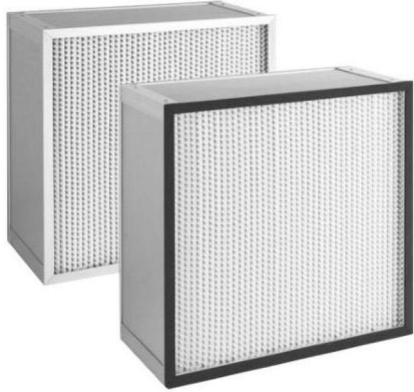
Filter Media	Ultra-fine glass fiber filter paper
Sealant	PU two-component polyurethane A B adhesive
Frames	Aluminum profile frame
Protective Mesh	Spraying diamond mesh
Compartment	EVA hot melt adhesive
Sealing tape	EVA or Neoprene
Filtration efficiency	H13:99.97-99.99% @ 0.3 μm H14:99.995-99.999% @ 0.3 μm
Maximum temperature	70℃
Maximum humidity	80%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Rated air volume (m³/h)	Filter area (㎡)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
346*346*90	320*320*90	400	4.16	≈250	≤200	400-600	H13
					≤220		H14
510*510*90	484*484*90	900	9.42	≈570	≤200	400-600	H13
					≤220		H14
636*636*90	610*610*90	1450	14.9	≈900	≤200	400-600	H13
					≤220		H14
941*636*90	915*610*90	2150	21.22	≈1330	≤200	400-600	H13
					≤220		H14
1246*636*90	1220*610*90	2850	29.33	≈1760	≤200	400-600	H13
					≤220		H14

Note: In addition to the above dimensions, we can accept non-standard customization.

280°C High Temperature Resistant Separatpr Hepa Filter



Performance Characteristics

- High efficiency, low resistance, large dust capacity
- High temperature resistance, can be used for a long time under the environment of 280°C.

Areas of application

Widely used in electronics, semiconductors, pharmaceuticals, food and other production processes require drying of ultra-clean ovens, etc. or require high-temperature air purification equipment and systems.

Design Features

- Mainly used for filtering air suspended particles above 0.3μm.
 - The filter media is made of high-temperature resistant ultra-fine glass fiber filter paper, separated by an aluminum foil plate.
 - The corrugated paper separator or aluminum separator maintains equal spacing between each pleated paper, which makes it easy for the airflow to pass through and ensures the effective use of the filter material and increases its strength.
 - All sides of the filter are sealed with special high-temperature resistant sealant to ensure the sealing of the entire filter.
 - Each filter is subjected to rigorous testing.
- Filtration efficiency grade: H13, H14 (EN1822).

Material composition and operating conditions

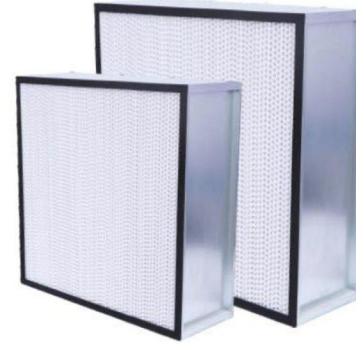
Filter Media	Aluminum profile frame, aluminum folding frame, galvanized frame, stainless steel frame
Sealant	High temperature resistant ultrafine glass fiber filter paper
Frames	Red high temperature resistant silica gel
Protective Mesh	No or stainless steel square mesh
Compartment	0.035m thick aluminum foil
Sealing tape	6mm thick red silicone strip
Filtration efficiency	H13:99.97-99.99% @ 0.3μm H14:99.995-99.999% @ 0.3μm
Maximum temperature	280°C
Maximum humidity	80%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
320*320*150	250	2.59	≈160	≤200	400-600	H13
				≤220	400-600	H14
484*484*150	600	6.0	≈360	≤200	400-600	H13
				≤220	400-600	H14
610*610*150	1000	9.59	≈580	≤200	400-600	H13
				≤220	400-600	H14
915*610*150	1500	14.38	≈860	≤200	400-600	H13
				≤220	400-600	H14

Note: In addition to the above dimensions, we can accept non-standard customization.

Hepa Filter With Baffle Plate At 400°C



Characteristics

- High efficiency, low resistance, large dust capacity
- High temperature resistance, can be used for a long time under the environment of 350-400°C.

Areas of application

Widely used in semiconductor, pharmaceutical, food, liquid crystal display and chip industry and other production processes require drying of ultra-clean oven or high-temperature air purification equipment and systems.

Design Features

- Mainly used for filtering airborne particles above 0.3μm. The filter media is made of high-temperature-resistant ultra-fine glass fiber filter paper, separated by an aluminum foil plate.
- The corrugated paper partition or aluminum partition maintains equal spacing between each pleated paper, which makes it easy for the airflow to pass through and ensures the effective use of the filter material and increases its strength.
- All sides of the filter are sealed with special high-temperature resistant inorganic adhesive to ensure the sealing of the whole filter.
- This high-temperature filter can withstand temperatures up to 400°C and does not contain silicone, which is especially suitable for industries that require high-temperature resistance but do not allow silicone content.
- Each filter is strictly tested.
- Filtration efficiency grade: H13, H14 (EN1822).

Material composition and operating conditions

Filter Media	High temperature resistant ultrafine glass fiber filter paper
Sealant	High temperature resistant inorganic adhesive
Frames	Galvanized frame, stainless steel frame
Protective Mesh	No or stainless steel square mesh
Compartment	0.035mm thick aluminum foil
Sealing tape	5mm thick white polytetrafluoroethylene tape
Filtration efficiency	H13:99.97-99.99% @ 0.3μm H14:99.995-99.999% @ 0.3μm
Maximum temperature	400°C
Maximum humidity	80%

Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
320*320*150	250	2.59	≈160	≤200	400-600	H13
				≤220	400-600	H14
484*484*150	600	6.0	≈360	≤200	400-600	H13
				≤220	400-600	H14
610*610*150	1000	9.59	≈580	≤200	400-600	H13
				≤220	400-600	H14
915*610*150	1500	14.38	≈860	≤200	400-600	H13
				≤220	400-600	H14
1220*610*150	2000	19.17	≈1150	≤200	400-600	H13
				≤220	400-600	H14
320*320*220	500	4.08	≈250	≤200	400-600	H13
				≤220	400-600	H14
484*484*220	1000	9.46	≈570	≤200	400-600	H13
				≤220	400-600	H14

Note: In addition to the above dimensions, we can accept non-standard customization.

Super High Efficiency Baffle Free Filter



■ Characteristics ■ Application

- Light weight and thin thickness.
- High efficiency, low resistance, high dust capacity.
- Easy installation, low running cost.

Widely used in super LSI manufacturing plants, semiconductor manufacturing plants, atomic force research centers, clean rooms, ultra-clean laboratories, ultra-clean workbenches, and other applications requiring ultra-high cleanliness.

■ Design Features

- Mainly used for filtering air suspended particles above 0.12μm, as the end filtration of ten-stage and one-stage filtration system.
- The filter media is made of US HV ultra-fine glass fiber filter paper with thermoplastic spacer.
- This design reduces operating costs, and the spacerless thermoplastic spacer ensures the same pleat spacing for optimal airflow, high dust holding capacity, and full utilization of the filter media throughout the entire depth of the filter.
- The outer frame is anodized for added rigidity and durable corrosion protection.
- All sides of the filter are sealed with special sealant to ensure the sealing of the whole filter. Plastic spraying protective mesh is installed on the inlet and outlet surfaces of the filter to protect the filter paper from being damaged.
- Each filter is strictly tested.
- Filtration efficiency grade: U15, U16, U17(EN1822).

■ Material composition and operating conditions

Filter Media	U.S.A. HV ultrafine glass fiber filter paper
Sealant	PU two-component polyurethane A B glue
Frames	Aluminum profile frame, aluminum plate folding frame, galvanized frame, stainless steel frame
Protective Mesh	Plastic diamond mesh
Compartment	EVA hot melt adhesive
Sealing tape	EVA or neoprene rubber
Filtration efficiency	U15:99.999-99.9995% @ 0.12μm, U16:99.9999-99.99995% @ 0.12μm, U17:99.99999-99.999995% @ 0.12μm
Maximum temperature	70 °C
Maximum humidity	100%

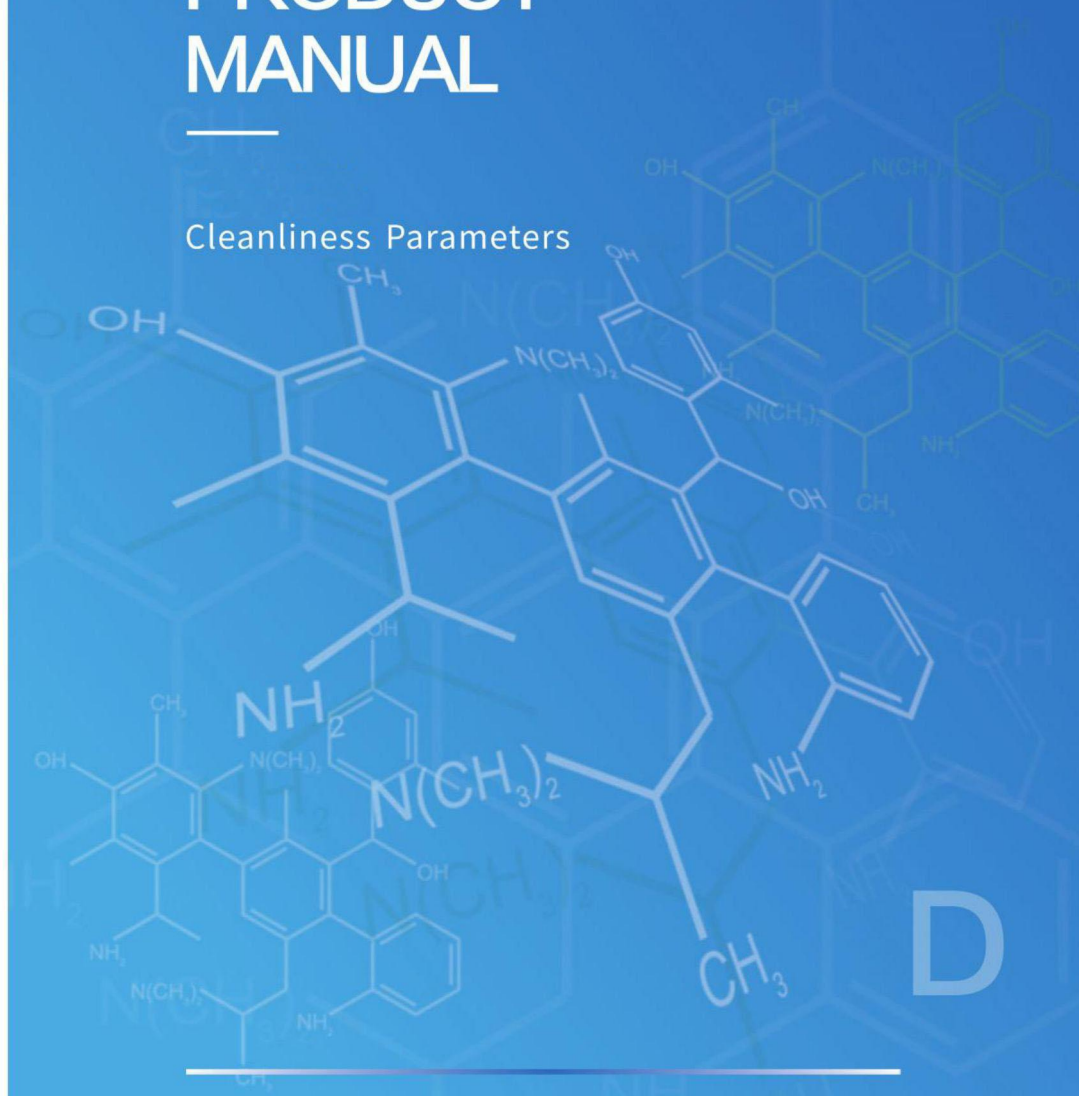
■ Product dimensions and specific parameters

SIZE (W*H*D)(mm)	Rated air volume (m³/h)	Filter area (m²)	Dust capacity(g)	initial resistance(Pa)	Ultimate resistance(Pa)	Filtration efficiency
320*320*50	150	1.99	≈160	≤150	400-600	U15
				≤160		U16
				≤170		U17
484*484*50	300	4.51	≈360	≤150	400-600	U15
				≤160		U16
				≤170		U17
610*610*50	450	7.13	≈570	≤150	400-600	U15
				≤160		U16
				≤170		U17
915*610*50	650	10.58	≈850	≤150	400-600	U15
				≤160		U16
				≤170		U17

Note: In addition to the above dimensions, we can accept non-standard customization.

GCC-Deiiang PRODUCT MANUAL

Cleanliness Parameters



Clean Room Parameters

The ISO 14644:ISO 1, ISO 2, ISO 3, ISO 4, ISO 5, ISO 6, ISO 7, ISO 8, and ISO 9. ISO 1 is the "cleanest" class and ISO 9 is the "dirtiest" class. ISO 1 is the "cleanest" class and ISO 9 is the "dirtiest" class.

AIRBORNE PARTICULATE CLEANRLINESS CLASSES (BY CUBLIC METER)

Air Cleanliness Class		Maximum concentration limits for particle sizes greater than or equal to those in the table (number of airborne particles per cubic meter)					
ISO STANDARD	CHINA STANDARD	0.1μm	0.2μm	0.3μm	0.5μm	1μm	5μm
Class 1		10	2				
Class 2	一级	100	24	10	4		
Class 3	五级	1000	237	102	35	8	
Class 4	十级	10000	2370	1020	352	83	
Class 5	百级	100000	23700	10200	3520	832	29
Class 6	千级	1000000	237000	102000	35200	8320	293
Class 7	万级				352000	83200	2930
Class 8	十万级				3520000	832000	29300
Class 9	三十万级				35200000	8320000	293000

TEMPERATUREAND HUMIDITY GRADE OF CLEAN ROOM (AREA)

行业	洁净度等级	称谓	温度范围 (°C)		湿度范围 (%)	
			夏季	冬季	夏季	冬季
电子	10级	ISO4级	~24	≤22	40~70	30~50
	100级	ISO5级	~24	≤22	40~70	30~50
	1000级	ISO6级	~24	≤22	40~70	30~50
	10000级	ISO7级	~24	≤22	40~70	30~50
	10000级	ISO8级	~24	≤22	40~70	30~50

GRADE STANDARD FOR CLEAN ROOM OF CLEAN OPERATION DEPARTMENT

CLASS	Maximum average concentration of settled (planktonic) bacteria		表面最大染菌密度	空气洁净度级别	
	operating rooms	peripheral zone		手术区	周边区
I	0.2个30min Φ90皿 (5个/m³)	0.4个30min Φ90皿 (10个/m³)	5个/cm²	100级	100级
II	0.75个30min Φ90皿 (25个/m³)	1.5个30min Φ90皿 (50个/m³)	5个/cm²	1000级	1000级
III	2个30min Φ90皿 (75个/m³)	4个30min Φ90皿 (150个/m³)	5个/cm²	10000级	10000级
IV	5个30min Φ90皿 (175个/m³)		5个/cm²	300000级	

U.S. Federal Standard 209E

CLEANLINESS GRADE OFSUSPENDED PARTICLESIN THE AIFO CLEAN AREA

Grade Name		Level Restrictions									
		0.1μm		0.2μm		0.3μm		0.5μm		5μm	
international unit	British units	/M3	/ft3	/m3	/ft3	/m3	/ft3	/m3	/ft3	/m3	/ft3
M1		350	9.91	75.7	2.14	30.9	0.875	10.0	0.283		
M1.5	1	1240	35.0	265	7.50	106	3.00	3.53	1.00		
M2		3500	99.1	757	21.4	309	8.75	100	2.83		
M2.5	10	1240	350	2650	75.0	1060	30.0	353	10.0		
M3		35000	991	7570	214	3090	87.5	1000	28.3		
M3.5	100			26500	750	10600	300	3530	100		
M4				75700	21400	30900	875	10000	283		
M4.5	1000							35300	1000	247	7
M5								100000	2830	618	17.5
M5.5	10000							353000	10000	2470	70.0
M6								1000000	28300	6180	175
M6.5	100000							3530000	100000	24700	700
M7								10000000	283000	61800	1750

The international standard "Clean Plant Design Code" (ISO14644) stipulates that different levels of clean room clean air supply volume calculation of the required experience of the clean room section average air velocity or the number of air changes

TABLE SHOWING THE AVERAGE SECTIONALWIND SPEED OR VENTILATION RATE OF THE CLEAN ROOM

洁净度等级	GB50073-2001	ISO/DIS 14644-4
Class1-4	0.3-0.5 m.s-1	0.3-0.5 m.s-1
Class 5	0.2-0.5 m.s-1	0.2-0.5 m.s-1
Class 6	50-60 h-1	25-56 h-1
Class 7	15-25 h-1	11-25 h-1
Class 8	10-15 h-1	3.5-7 h-1
Class 9	10-15 h-1	3.5-7 h-1

CLFAN ROOM LOAD ESTIMATION DATA

Sector	Cooling/km1-(m2.s-1)	Calorimetric/km1-(m2 8-1)	Electricity/kw. m-2
Semiconductor Devices	48-2385	30-1400	0.06-1.3
Semiconductor Materials	90-1033	144-1360	0.13-0.69
Electric vacuum	182-500	245-504	0.04-0.2
Precision instruments	257-1148	213-757	0.11-0.31
Film	Approximate41	Approximate172	约0.02
Computer	Approximate200	Approximate70	---
medical	140-345	100-517	0.15-0.26
Pharmaceuticals	274-1100	236-1530	0.003-0.08
Computing Center	200-250	---	---
Hospitals (all)	90-110	---	---



Filter Efficiency Comparison Table

Standard basis: "Good Manufacturing Practice (2010 Revision)", ISO-14644-1, ISO-14698-1 "Pharmaceutical industry clean room (area) suspended particles test method"
"GB/T16292-2010, "Pharmaceutical industry clean room (area) bacterial plankton test method" GB/T16293-2010, "Pharmaceutical industry clean room (GB/T16293-2010, Test Methods for Sedimentation Bacteria in Clean Room (Area) of Pharmaceutical Industry GB/T16294-2010.

CLEANLINESS GRADE OF SUSPENDED PARTICLES IN CLEAN ROOMS (AREAS) OF PHARMACEUTICALINDUSTRY

Descriptions		Cleanliness level					
Clean Room Classification		ISO 5	ISO 7	ISO 8	Control Uncategorized (with local monitoring)	Control Uncategorized (CNC)	
Descriptive classification		A	B	C	D	Undefined	
Static	Maximum permissible number of particles per cubic meter	≥0.5μm	3520	3520	352000	3520000	—
		≥5μm	20	29	2900	29000	—
Dynamic	Maximum permissible number of particles per cubic meter	≥0.5μm	3520	352000	3520000	Not provided for	—
		≥5μm	20	2900	29000	Not provided for	—
Static	Maximum permissible number of particles per cubic meter	0.5-5μm	3500	3500	350000	3500000	
		> 5μm	0	0	2000	20000	
Dynamic	Maximum permissible number of particles per cubic meter	0.5-5μm	3500	350000	3500000	Not provided for	
		> 5μm	0	2000	20000	Not provided for	
Dynamic	Maximum permissible number of particles per cubic meter	≥0.5μm	100级 (ISO 5)	10000级 (ISO 7)	100000级 (ISO 8)	Not provided for	See ISPE Benchmarking Guide on Biopharmaceutical or Aseptic Manufacturing

Notes: FDA does not have a "static" standard, its 100,000 level area refers to the dynamic level of 10,000, equivalent to our country and the European Union's level C, FDA does not have the equivalent of the "D" classification.FDA does not have the equivalent of "D" classification.

"Good Manufacturing Practice" (GMP) (revised in 2010) in the provisions of the drug production clean room (area) in the air suspended pressure particles and microorganisms in the maximum permissible number of cleanliness level table

GRADE OF FLOATING/SETTLING BACTERIAIN PHARMACEUTICALINDUSTRY CLEAN ROOM (AREA)

cleanness level	Maximum permissible number of dust particles/cubic meter		Maximum permissible number of microorganisms/cubic meter	
	≥0.5μm	≥5μm	Planktonic bacteria/m³	Bacteria/(pcs/dish)
100	3 500	0	5	1
10000	350 000	2 000	100	3
100000	3500 000	20 000	500	10
300000	10 500 000	60 000	1 000	15

Filter Efficiency and Classifications

EUROVEN	MPPS	chinses classification	sodium flame	old euroven	USA
U17					
U16	99.999999%				UH20
U15	99.99995%				UH19
H14	99.9995%		99.999%	Eu14	UH18
H13	99.995%			Eu13	UH17
H12	99.95%		99.99%	Eu12	H16
H11	95%		99.97%	Eu11	H15
H10	85%		99.9%	Eu10	H14
F9					H13
F8			95%	Eu9	M12
F7				Eu8	M11
F6				Eu7	M10
F5				Eu6	M9
G4				Eu5	L8
G3				Eu4	L7
G2				Eu3	L6
G1				Eu2	L5
				Eu1	C2-C4

ANSI/ASHRAE52.1-1992

Arrestance

90%

80%

65%

ANSI/ASHRAE52.1-1992

95%

90%

80%

60%

40%

chinses

99.9% (0.5um)

95% (0.5um)

99.9% (0.5um)

71% (1um)

20% (1um)

80% (5um)

40% (5um)

GBT12218-89

III Class

I Class

sub-HEPA

high-medium

medium

coarse

GBT14295-93

sub-HEPA

high-medium

medium

coarse

HEPA

CHINA GB13554-92	Primary (40%-80%) II		Medium (20%-70%) III		Medium Hepa (70%-99.9%) IV		Sub Medium (95%-99.5%) V		HEPA (99.5%以上)						
	1.0μm		1.0μm		1.0μm		0.3μm		最易穿透粒≤0.3μm						
European EN779	G1	G2	G3	G4	F5	F6	F7	F8	F9	H10	H11	H12	H13	H14	U15-U17
EUROVENT	Eu1	Eu2	Eu3	Eu4	Eu5	Eu6	Eu7	Eu8	Eu9	Eu10	Eu11	Eu12	Eu13	Eu14	