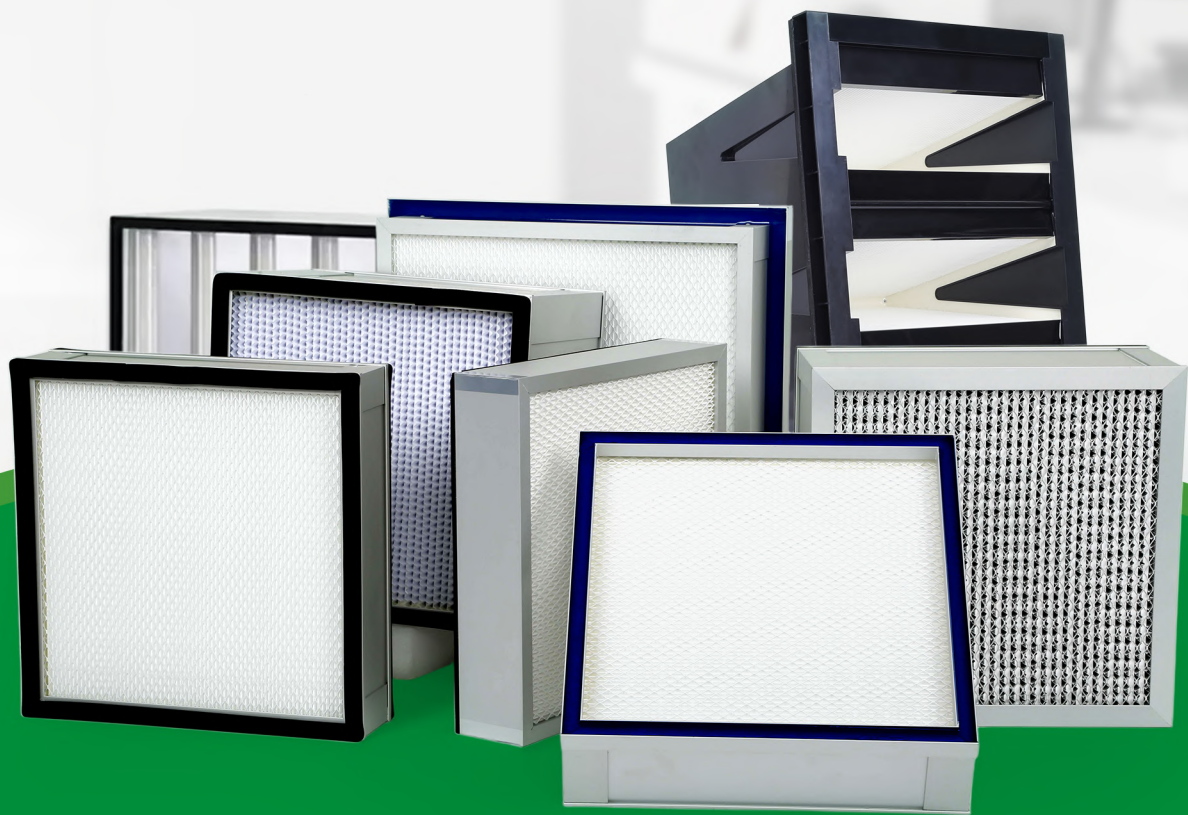




SUB-HEPA, HEPA & ULPA AIR FILTERS

The Ultimate Protective Barrier for Stringent
Cleanroom Requirements



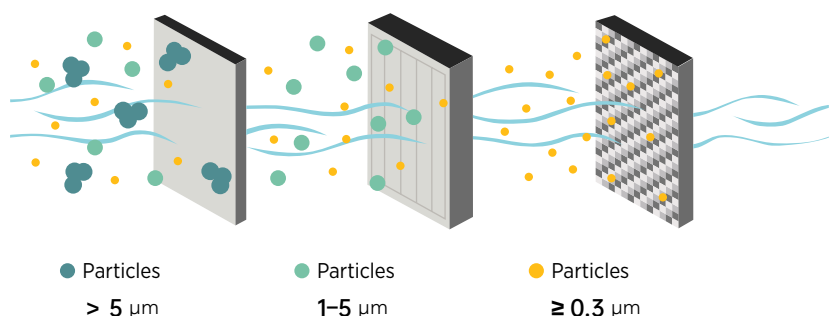
SUB-HEPA, HEPA & ULPA AIR FILTERS

Introduction

Sub-HEPA air filters (E10-E12), also known as EPA filters, are primarily used to capture particles $>0.5\mu\text{m}$, including dust, bacteria, and large airborne particulates. They are widely used in environments requiring moderate-to-high air cleanliness where full HEPA filtration ($\geq 99.97\%$ @ $0.3\mu\text{m}$) is not yet necessary.

High efficiency particulate air filters (H13-H14), commonly known as HEPA filter, can effectively capture particles with a diameter of $0.3\mu\text{m}$, achieving a filtration efficiency of 99.97% or higher. HEPA filters are widely used in cleanrooms, operating rooms, biological laboratories, pharmaceutical, and electronics manufacturing industries. They are critical equipment for controlling airborne dust, bacteria, and other harmful particulates.

Ultra-low penetration air filters (U15-U17), referred to as ULPA filters, are an advanced version of the HEPA filter with enhanced performance. These filters provide a filtration efficiency of over 99.9995% for suspended particles such as $0.1-0.2\mu\text{m}$ microparticles, smoke, and microorganisms, and achieve over 99.9999% efficiency for particles $0.3\mu\text{m}$ and larger. They are widely used in environments with extremely high air cleanliness requirements.



Filters particles $\geq 0.3\mu\text{m}$



Various configurations: with or without separators, gel seal, modular design



Specially designed sealing strips ensure reliable system integrity



Customization available: high temperature resistance ($250-350\text{ }^{\circ}\text{C}$), humidity resistance (100%), non-standard dimensions



Filtration Grade: Semi-HEPA E10-E12, HEPA H13-H14, Ultra-HEPA U15-U17



Individually tested in accordance with EN 1822:2019 standard

ONE-STOP CLEANROOM SYSTEM SOLUTION PROVIDER



Glass Fiber Filter Paper

Glass fiber filter paper is a high-efficiency filtration material made from ultra-fine glass fibers through a wet-laid process. It features a dense, uniform fiber structure with exceptional particle retention capabilities. Widely used in HEPA and ULPA-grade air filters, this material can effectively capture suspended particles with diameters ≥ 0.3 microns, achieving filtration efficiencies of 99.97% or higher.

Besides, it offers low pressure drop, excellent flame resistance, and high-temperature tolerance, making it suitable for cleanroom air purification systems in industries such as pharmaceuticals, biotechnology, electronics, and food processing.

PTFE Filter Paper



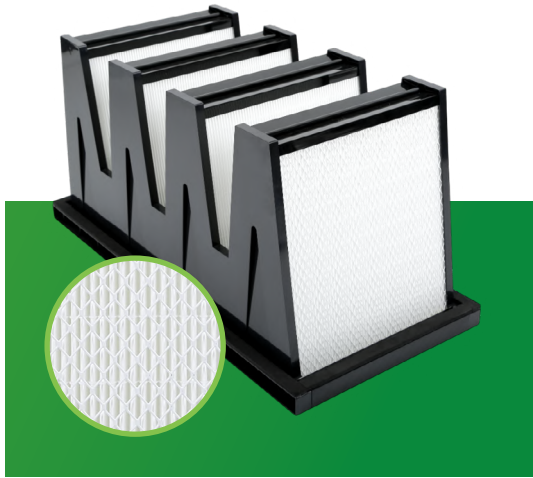
PTFE filter paper uses expanded polytetrafluoroethylene (ePTFE) microporous membrane as the filtration medium, offering exceptional chemical inertness and superb hydrophobic properties. With uniform pore size and a stable structure, it effectively filters fine airborne particles while exhibiting excellent resistance to acids, alkalis, corrosion, and high temperatures. It is especially suitable for environments with high humidity, corrosive gases, or extremely high cleanliness requirements – such as biopharmaceuticals, semiconductor manufacturing, and precision instrument laboratories – providing reliable and long-lasting filtration performance for air purification systems.



Category

- Sub-HEPA Mini-pleat V-type Air Filter
- Sub-HEPA Separator Air Filter
- Separator HEPA Filter
- Ultra-low Resistance Mini-pleat HEPA Filter
- Mini-pleat HEPA Filter
- Combined V-type HEPA Filter
- Liquid Sealant HEPA Filter
- High-temperature Resistant HEPA Filter
- High-humidity Resistant HEPA Filter
- Mini-pleat ULPA Filter

Sub-HEPA Mini-pleat V-type Air Filter



Features

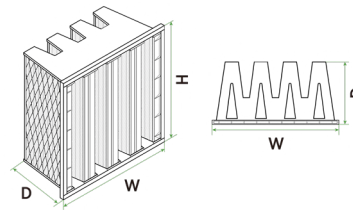
- Low initial resistance and excellent energy-saving performance
- Ideal for space-constrained systems with high airflow requirements
- Customizable dimensions and flange connections available
- Stable structure and recyclable design

Applications



Specifications

- **Frame**
ABS plastic, stainless steel, galvanized steel sheet
- **Sealant**
Polyurethane adhesive
- **Separator**
Hot melt adhesive
- **Filter media**
Glass fiber filter paper or polypropylene
- Individually tested to EN 1822:2019



Filter Class

E EPA

Data Sheet

Model	External Dimensions (W × H × D)	Frame	Filtration Area	Rated Airflow	Initial Pressure Drop (Pa)
	mm		m ²	m ³ /h	E10
JAFEV-208	287 × 287 × 292	2V	4.2	800	≤ 185
JAFEV-212	287 × 490 × 292		7.7	1200	
JAFEV-216	287 × 592 × 292		9.4	1600	
JAFEV-311	490 × 287 × 292	3V	6.4	1100	
JAFEV-319	490 × 490 × 292		11.6	1900	
JAFEV-324	490 × 592 × 292		14.4	2400	
JAFEV-416	592 × 287 × 292	4V	8.4	1600	
JAFEV-425	592 × 490 × 292		15.4	2500	
JAFEV-432	592 × 592 × 292		18.8	3200	
JAFEV-518	592 × 287 × 292	5V	10.5	1800	
JAFEV-532	592 × 490 × 292		19.0	3200	
JAFEV-539	592 × 592 × 292		23.5	3900	

Note: Special specifications can be customized.

Applications

Primarily used in high airflow air conditioning purification equipment, serving as intermediate and terminal filtration in air handling unit systems.

Sub-HEPA Separator Air Filter



Features

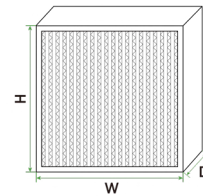
- Double-sided protective mesh for filter media protection
- The separator design ensures uniform airflow through the filter media and prevents channel blockage
- Ultrafine glass fiber filter paper is used as the filter media, providing stable filtration efficiency
- The filter element is sealed with adhesive around its perimeter to effectively prevent air leakage

Applications



Specifications

- | | |
|--|---|
| ■ Frame
Aluminum material, stainless steel, galvanized steel sheet | ■ Filter media
Ultrafine glass fiber filter paper |
| ■ Sealant
Polyurethane adhesive | ■ Gasket
EVA |
| ■ Separator
Aluminum foil, coated paper | ■ Individually tested to EN 1822:2019 |



Filter Class

E EPA

Data Sheet

Model	External Dimensions (W × H × D)	Filtration Area m ²	Rated Airflow m ³ /h	Initial Pressure Drop (Pa)
	mm			E10
JAFES-3753.6	305 × 305 × 150	3.6	375	≤170
JAFES-5256.1	320 × 320 × 220	6.1	525	
JAFES-7507.5	305 × 610 × 150	7.5	750	
JAFES-120012	315 × 630 × 220	12.0	1200	
JAFES-150014	484 × 484 × 220	14.0	1500	
JAFES-150015A	305 × 610 × 292	15.0	1500	
JAFES-150015B	610 × 610 × 150	15.0	1500	
JAFES-225023	915 × 610 × 150	23.0	2250	
JAFES-225025	630 × 630 × 220	25.0	2250	
JAFES-300029	968 × 484 × 220	29.0	3000	
JAFES-300031A	610 × 610 × 292	31.0	3000	
JAFES-300031B	1220 × 610 × 150	31.0	3000	
JAFES-450050	1260 × 630 × 220	50.0	4500	

Note: Special specifications can be customized.

Applications

Mainly used in electronics, pharmaceutical, and hospital environments, as well as other applications requiring high levels of cleanliness.

Separator HEPA Filter



Features

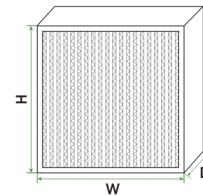
- Uniform airflow distribution**
 The separator structure effectively prevents filter material adhesion or deformation, ensuring stable ventilation.
- Long service life**
 The mechanical support structure is stable, the filter material is not prone to collapse, and maintenance intervals are extended.

Applications



Specifications

- | | |
|---|--|
| <ul style="list-style-type: none"> Frame
 Aluminum material Sealant
 Polyurethane adhesive Separator
 Gasket paper or aluminum foil Filter material
 Ultrafine glass fiber or PTFE filter paper | <ul style="list-style-type: none"> Maximum operating temperature
 80 °C Maximum operating humidity
 80% Gasket
 EVA Individually tested to EN 1822:2019 |
|---|--|



Filter Class

H High

Data Sheet

Model	External Dimensions (W × H × D)	Rated Airflow	Initial Resistance	Efficiency (counting method @ 0.3µm)	Dust Holding Capacity	Weight
	mm					
JAFHS-0435	320 × 320 × 220	400	≤ 220	≥ 99.99%	350	3.4
JAFHS-0540	350 × 350 × 220	500			400	4.0
JAFHS-1060	610 × 610 × 150	1000			600	6.5
JAFHS-1060-1	484 × 484 × 220	1000			600	7.7
JAFHS-1375	820 × 600 × 150	1300			750	8.5
JAFHS-1575	726 × 484 × 220	1500			750	11.5
JAFHS-1580	915 × 610 × 150	1500			800	10.0
JAFHS-1590	630 × 630 × 220	1500			900	13.0
JAFHS-2012	968 × 484 × 220	2000			1200	15.0
JAFHS-2012-1	1220 × 610 × 150	2000			1200	12.5
JAFHS-2314	945 × 630 × 220	2300			1400	19.0
JAFHS-3018	1260 × 630 × 220	3000			1800	23.0

Note: Special specifications can be customized.

Applications

Suitable for various local purification equipment and cleanrooms, for purification of environmental air under normal temperature, humidity, and pressure conditions.

Ultra-low Resistance Mini-pleat HEPA Filter



Features

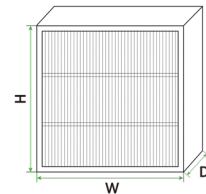
- Ultra-low resistance
- Thin profile
- High efficiency
- Lightweight

Applications



Specifications

- | | |
|--|---|
| ■ Frame
Aluminum material | ■ Maximum operating temperature
80 °C |
| ■ Sealant
Polyurethane adhesive | ■ Maximum operating humidity
100% |
| ■ Separator
Hot melt adhesive | ■ Gasket
EVA |
| ■ Filter material
Ultrafine glass fiber or PTFE filter paper | ■ Individually tested to EN 1822:2019 |



Filter Class

H High

Data Sheet

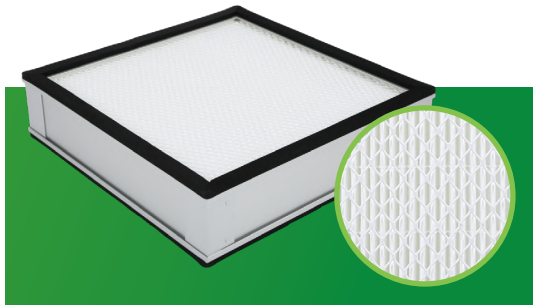
Model	External Dimensions (W × H × D) mm	Rated Airflow m ³ /h	Dust Holding Capacity g	Face Velocity m/s	Initial Resistance pa	Efficiency (counting method @ 0.3µm) %	Weight kg
JAFHLM-0503	400 × 400 × 80	500	300	0.90	≤ 160	≥ 99.99%	2.8
JAFHLM-0745	610 × 610 × 50	700	450	0.52			3.0
JAFHLM-1060	610 × 610 × 69	1000	600	0.75			3.8
JAFHLM-1060-1	550 × 550 × 80	1000	600	0.90			4.0
JAFHLM-14.585	610 × 610 × 90	1450	850	1.00			5.0
JAFHLM-1590	915 × 610 × 69	1500	900	0.75			6.0
JAFHLM-1811	1170 × 570 × 69	1800	1100	0.75			6.5
JAFHLM-2213	915 × 610 × 90	2200	1300	1.00			7.5
JAFHLM-2917	1220 × 610 × 90	2900	1700	1.00			10.0

Note: Special specifications can be customized.

Applications

Widely used in electronics and semiconductor manufacturing, nuclear research, medical, precision machinery, cosmetics, and other environments requiring high cleanliness.

Mini-pleat HEPA Filter



Features

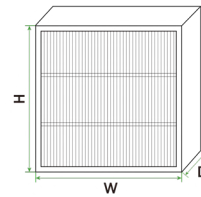
- Lightweight and compact structure**
 Thickness is typically 50-90 mm, suitable for installation in space-constrained environments.
- Large effective filtration area**
 Mini-pleat design increases the filter media area per unit volume, extending service life.

Applications



Specifications

- Frame**
 Aluminum material
- Sealant** Polyurethane adhesive
- Separator** Hot melt adhesive
- Filter material**
 Ultrafine glass fiber or PTFE filter paper
- Maximum operating temperature**
 80 °C
- Maximum operating humidity**
 80%
- Gasket** EVA
- Individually tested to EN 1822:2019



Filter Class

H High

Data Sheet

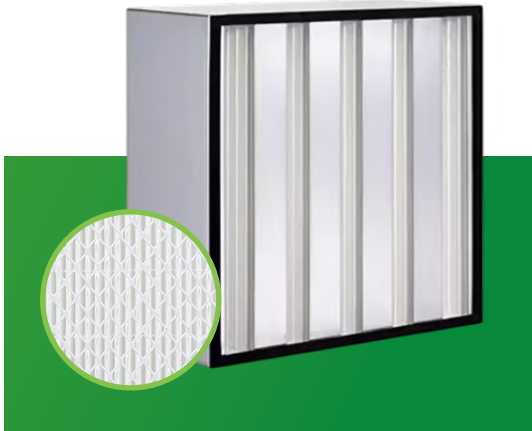
Model	External Dimensions (W × H × D) mm	Rated Airflow m ³ /h	Dust Holding Capacity g	Initial Resistance pa	Efficiency (counting method @ 0.3µm) %	Weight kg
JAFHM-3522	305 × 610 × 50	350	220	≤ 220	≥ 99.99%	1.5
JAFHM-4525	350 × 350 × 80	450	250			1.5
JAFHM-5030	305 × 610 × 69	500	300			1.7
JAFHM-5030-1	400 × 400 × 80	500	300			2.8
JAFHM-7045	610 × 610 × 50	700	450			3.0
JAFHM-8045	484 × 484 × 80	800	450			2.8
JAFHM-9045	484 × 484 × 90	900	550			3.0
JAFHM-10060	610 × 610 × 69	1000	600			3.8
JAFHM-10060-1	550 × 550 × 80	1000	600			4.0
JAFHM-13575	610 × 610 × 80	1350	750			4.5
JAFHM-14585	610 × 610 × 90	1450	850			5.0
JAFHM-15080	630 × 630 × 80	1500	800			4.8
JAFHM-15090	915 × 610 × 69	1500	900			5.6
JAFHM-180110	1170 × 570 × 69	1800	1100			6.1
JAFHM-200110	915 × 610 × 80	2000	1100			6.7
JAFHM-200120	1220 × 610 × 69	2000	1200			7.0
JAFHM-270150	1220 × 610 × 80	2700	1500			9.0
JAFHM-290170	1220 × 610 × 90	2900	1700	10.0		

Note: Special specifications can be customized.

Applications

Widely used in purification environments with high coverage requirements for HEPA filters in electronics, medical, food, and other industries.

Combined V-type HEPA Filter



Features

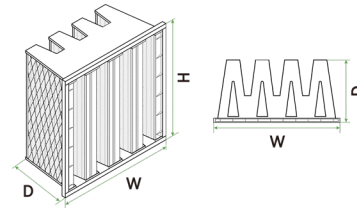
- Large airflow, small footprint**
 The compact structure can replace multiple conventional HEPA filters, saving system space..
- High efficiency, low resistance**
 The filter elements are arranged optimally, ensuring smooth airflow, reducing fan load, and saving energy.

Applications



Specifications

- Frame**
 Aluminum material
- Sealant**
 Polyurethane adhesive
- Separator**
 Hot melt adhesive
- Filter material**
 Ultrafine glass fiber or PTFE filter paper
- Maximum operating temperature**
 80 °C
- Maximum operating humidity**
 80%
- Gasket**
 EVA
- Individually tested to EN 1822:2019



Filter Class

H High

Data Sheet

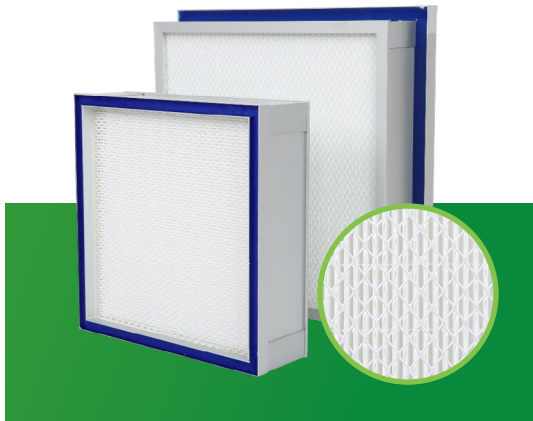
Model	External Dimensions (W × H × D) mm	Rated Airflow m ³ /h	Initial Resistance pa	Efficiency (counting method @ 0.3µm) %	Filter Element PCS
JAFH MV-104	295 × 595 × 295	1000	≤ 250	≥ 99.99%	4
JAFH MV-156	495 × 595 × 295	1500			6
JAFH MV-218	610 × 610 × 295	2100			8
JAFH MV-2710	610 × 610 × 295	2700			10
JAFH MV-3312	610 × 610 × 295	3300			12

Note: Special specifications can be customized.

Applications

Suitable for terminal filtration in air handling units and various large-airflow air purification equipment.

Liquid Sealant HEPA Filter



Features

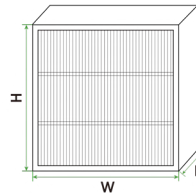
- Utilizes a jelly-like liquid groove sealant for a tight seal with the installation frame.
- Excellent sealing performance and strong leakage prevention.
- Quick installation, suitable for areas requiring frequent replacement.
- Enhances the sealing level of clean zones.

Applications



Specifications

- | | |
|--|---|
| ■ Frame
Aluminum material | ■ Maximum operating temperature
80 °C |
| ■ Sealant Polyurethane adhesive | ■ Maximum operating humidity
80% |
| ■ Separator Hot melt adhesive | ■ Individually tested to EN 1822:2019 |
| ■ Filter material
Ultrafine glass fiber or PTFE filter paper | |



Filter Class

H High

Data Sheet

Model	External Dimensions (W × H × D) mm	Rated Airflow m ³ /h	Initial Resistance pa	Efficiency (counting method @ 0.3µm) %	Weight kg
JAFHYC-5A	400 × 400 × 95	500	≤ 220	≥ 99.99%	2.1
JAFHYC-5B	400 × 400 × 100	500			2.23
JAFHYC-5C	434 × 434 × 90	500			2.3
JAFHYC-10A	550 × 550 × 95	1000			4.3
JAFHYC-10B	550 × 550 × 100	1000			4.5
JAFHYC-10C	584 × 584 × 90	1000			4.8
JAFHYC-15A	630 × 630 × 95	1500			5.8
JAFHYC-15B	630 × 630 × 100	1500			6.0
JAFHYC-16A	664 × 664 × 90	1600			6.3
JAFHYC-20A	915 × 610 × 95	2000			8.2
JAFHYC-20B	915 × 610 × 100	2000			8.5
JAFHYC-22A	949 × 644 × 90	2200			9.0

Note: Special specifications can be customized.

Applications

Primarily used for terminal air supply in cleanrooms, such as in pharmaceutical, medical, food, electronics, semiconductor, and other industries.

High-temperature Resistant HEPA Filter



Features

- High filtration efficiency
- Large dust holding capacity
- Low resistance
- Excellent high-temperature resistance

Applications

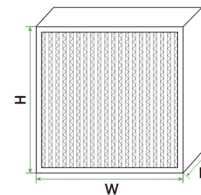


Filter Class

H High

Specifications

- **Frame**
316L
- **Sealant**
High-temperature resistant sealant
- **Separator**
Aluminum foil separator
- **Filter media**
Ultrafine glass fiber filter paper
- **Gasket**
Silicone gasket
- **Maximum operating temperature**
Continuous use at 350 °C
- Individually tested to EN 1822:2019



Data Sheet

Model	External Dimensions	Rated Airflow	Dust Holding Capacity	Operating Temperature	Efficiency (Counting method @ 0.3µm)	Initial Resistance
	mm	m ³ /h	g	°C	%	Pa(22.4 mmH ₂ O)
JAFHRT-10060	610 × 610 × 150	1000	600	I, 250 °C (suitable for long-term use); II, 300 °C (suitable for long-term use); III, 350 °C (suitable for long-term use)	≥ 99.9% (250–300 °C), ≥ 99.95% (350 °C)	≤ 220
JAFHRT-7545	610 × 457 × 150	750	450			

Note: Special specifications can be customized.

Applications

Primarily used in equipment and systems requiring high-temperature air purification, such as ultra-clean ovens.

High-humidity Resistant HEPA Filter



Features

- High filtration efficiency
- Large dust holding capacity
- Low resistance
- Excellent moisture resistance

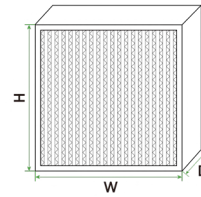
Applications



Specifications



- | | |
|--|---|
| ■ Frame
Aluminum material | ■ Gasket
EVA |
| ■ Sealant
Polyurethane adhesive | ■ Maximum operating humidity
Can be used in environments with 100% RH |
| ■ Separator
Gasket paper | ■ Individually tested to EN 1822:2019 |
| ■ Filter material
Ultrafine glass fiber filter paper | |



Filter Class

H High

Data Sheet



Model	External Dimensions	Rated Airflow	Weight	Dust Holding Capacity	Efficiency (Particle Count Method @ 0.3µm)	Initial Resistance
	mm	m ³ /h	kg	g	%	Pa (22.4 mmH ₂ O)
JAFHRH-0330	305 × 610 × 150	300	5	300	≥ 99.99%	≤ 220
JAFHRH-0645	460 × 610 × 150	600	8	450		
JAFHRH-0860	610 × 610 × 150	800	10	600		
JAFHRH-1075	820 × 610 × 150	1000	13	750		
JAFHRH-1285	915 × 610 × 150	1200	15	850		

Note: Special specifications can be customized.

Applications



Air purification under conditions of normal temperature, normal pressure, and high humidity, especially in high-humidity environments such as infusion production in the medical industry.

Mini-pleat ULPA Filter



Features

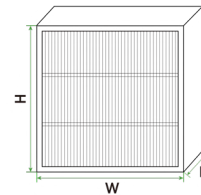
- Low pressure drop
- Thin profile
- High efficiency
- Lightweight

Applications



Specifications

- **Frame material**
Aluminum material
- **Sealant**
Polyurethane adhesive
- **Separator**
Hot melt adhesive
- **Filter material**
Glass fiber filter paper/PTFE
- **Maximum operating temperature**
80 °C
- **Maximum operating humidity**
100%
- **Gasket**
EVA
- **Filtration grade**
U15 U16
- Individually tested to EN 1822:2019



Filter Class

U Ultra

Data Sheet

Model	External Dimensions (W × H × D)	Rated Airflow	Dust Holding Capacity	Face Velocity	Initial Resistance	Efficiency	Weight
	mm	m ³ /h	g	m/s	pa	MPPS	kg
JAFUM-4735	610 × 610 × 50	470	350	0.35	≤ 170	≥ 99.9995%	3.0
JAFUM-6050	610 × 610 × 69	600	500	0.45			3.8
JAFUM-9070	610 × 610 × 90	900	700	0.65			5.0
JAFUM-9075	915 × 610 × 69	900	750	0.45			6.0
JAFUM-10085	1170 × 570 × 69	1000	850	0.45			6.5
JAFUM-130110	915 × 610 × 90	1300	1100	0.65			7.5
JAFUM-170145	1220 × 610 × 90	1700	1450	0.65			10.0

Note: Special specifications can be customized.

Applications

Ultra-LSI manufacturing facilities, semiconductor manufacturing facilities, atomic energy research centers, cleanrooms, laminar flow equipment, workbenches, and other environments requiring ultra-high cleanliness.

PureFlow

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