# PRODUCT CATALOGUE www.youthfilter.com 2022

Youthtech specialize in cleanroom filtration solutions to meet a variety of applications and industries. We offer a broad range of high-quality filters, cleanroom equipment and lab furniture to meet the needs of applications from Class 100,000 to Class 10.

At Youthtech, you will find the ultimate products with excellent cost-effective, not the cheapest but the most appropriate investment cost to meet your reliable operation, long lasting and high-quality requirements.

Our technical knowledge and more than 24 years' experience endow us the ability of providing tailor-made and integrated services and solutions for you.





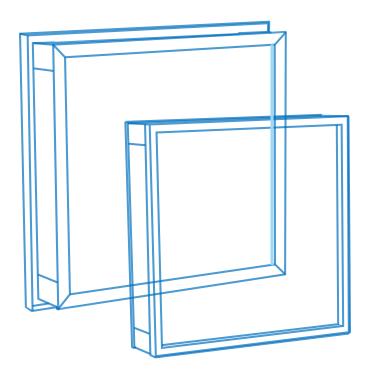




## Catalogue

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# **AIR FILTER**





Air filters are widely used in industries and sectors that require air purification, such as microelectronics, biomedicine, automotive coating, life sciences, nuclear power, food, cosmetic, commercial construction, national defense, scientific research, etc.



Samsung mini-pleat production line for HEPA/ULPA



MPPS test machine According to EN1822



**Endless form gasket** 



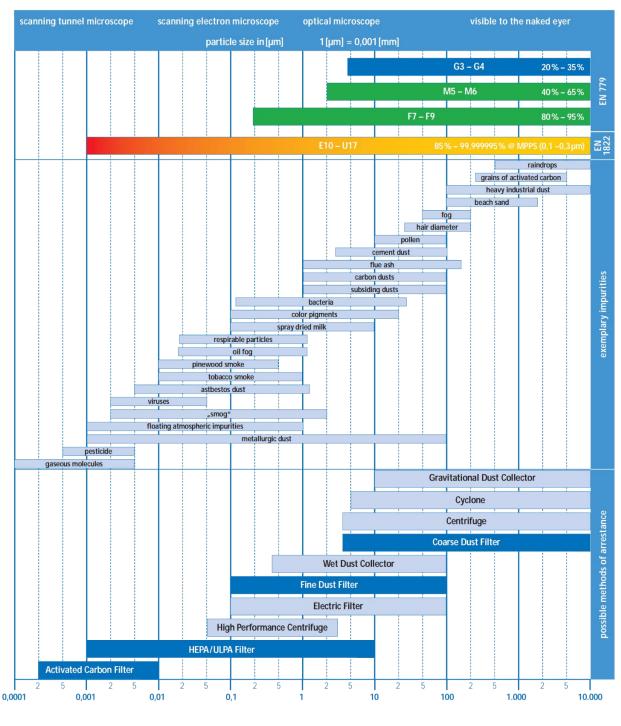
Welding production line for pre-filer



Assembly line



Packing area



viruses	smoke	bacteria	oilfog	tonerdust	spores	pollen	hair	coarse dust
	n							
0,002-0,05 [μm]	0,01-1[µm]	0,2-25 [µm]	0,3-5[µm]	5-20[µm]	10-25[μm]	10-100 [μm]	20-200 [μm]	100-2000 [μm]

	Туре	Model	Class EN779 /EN1822	Form of delivery D= depth in [mm]	Areas of application	Note
Filter Pad		FP	G2/G3/G 4	rolled media	pre-filtration media for HVAC & other ventilation systems, particularly for coarse dust arrestance or as a prefilter stage.	washable synthetic fiber polyester filter mat
Cardboard Filter		CF	G3/G4	panel filter D = 24 panel filter D = 48	pre-filter cell for ventilation systems, supply air within industrial machines etc. These filters offer low differential pressure as well as a high degree of coarse dust adsorbtion.	filter frame: cardboard
Carbon Filter		TF	G3-H14	customized	added modified activated carbon or other chemical particles with strong adsorptive property to remove harmful gases in the air, suitable for commercial HVAC system	Filter type: panel, cylinder cartridge
Panel Filter		PF	G3/G4	panel filter D = 48 panel filter D = 96	standard primary filter or main filter for various equipment, HVAC and other ventilation systems, etc. standard primary or main filter for HVAC, or other ventilation systems, offers more filter surface and therefore a higher flow rate due to the zig-zag folds of the filter media.	filter frame: GI/AL
Bag Filter		BF	G3/G4/M 5	bag filter element D= 100 to 700	prefilter for HVAC and other ventilation systems as well as industrial applications with a high amount of coarse dust production; qualitatively better pre-filter for HVAC and ventilation systems with a high amount of coarse dust production	filter frame: ABS/GI/AL
Bag Filter		BF	M6/F7	bag filter element D= 150 to 700	ideal pre-filter for HVAC and other ventilation systems; highly efficient for absorbing fine dusts pre-filter for industrial applications with a high demand on clean supply air main filter for applications with low demands on the air quality / fine dust removal	filter frame: ABS/GI/AL M6: green color
Bag Filter		BF	F8/F9	bag filter element D= 150 to 700	standardized main-filter for HVAC & other ventilation systems prefilter for HEPA /ULPA filtration areas, highly efficient for fine dust extraction; main filter for comfort HVAC.	filter frame: GI/AL

	Туре	Model	Class EN779 /EN1822	Form of delivery D= depth in [mm]	Areas of application	Note
V-bank		VS	M6-H14	2V-5V sharped cassette D=292 25mm flange	M6-F9 Compact pre- or main filter for HVAC & other ventilation systems as well as industrial and turbine units H13-H14 HEPA-Filter for clean rooms, ventilation systems and industrial processes to remove oil mist	filter frame: ABS/GI
V-bank		VB	M6-H14	2V-5V sharped cassette D=292	same area of application as V-sharp, however applicable for higher flow rates	filter frame: ABS/GI/AL
Separator Filter		SH	F7-H14	T=150/292 aluminum/paper separator	M6-F9 pre- and main filter for industrial processes H13-H14 HEPA-Filter for industrial and pharmaceutical processes burst pressure >15 [kPa] or specific options like electro static grounding, FDA	filter frame: ABS/GI/AL SIngle/ double header/ turn flange
Separator Filter		НТ	H13-U16	T=150/292 aluminum separator	HEPA/ULPA equipped to meet temperatures up to 300 degree Celsius	filter frame: SS304/316
HEPA/ULPA		MP	H13-U16	minipleated PU gasket D=50/65/70/80/ 90/100	Standard HEPA/ULPA filter for industrial processes, clean rooms, ventilation systems in hospitals etc. Knife edge style especially applied on electric clean rooms	filter frame: AL
HEPA/ULPA		MP	H13-U16	minipleated gel seal D=65/93/120 (side seal) D=64/72/94/104 (top seal)	same area of application as regular HEPA but with better sealing performance	filter frame: AL
HEPA BOX		НВ	match HEPA H13-U16	customized	including SS dust apply hollow ring, DOP supply / test port	frame: cold steel Al alloy Stainless steel

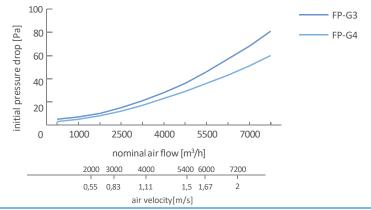
Coarse Filter pad with low initial resistance and large dust holding capacity is an ideal media for air conditioning or making pre filters such as panel filter or bag filter. It is mainly used to filter and remove  $\geq 5\mu m$  dust particles in air conditioning system for the automotive the spray workshop, stoving varnish room, the operating system of the household appliances painting. Available in pre-cut pad sizes.

#### Standard Size & Performace Parameters

Туре:	FP-G2	FP-G3	FP-G4
Class EN779	G2	G3	G4
Efficiency against synthetic dust [%]	75%	85%	91%
Initial-ΔP [Pa]	30	30	38
Recommended finalΔP [Pa]	250	250	250
Max. temp. [°C]	100°	100°	100°

No alak	Dimensions [mm]				Nominal	Dust hold
Model	Length	Width	Thickness	velocity (m/s)	airflow (m³/h)	capacity
FP20-G2	200	10/20	10±2	2.0	7200	400g/m <sup>3</sup>
FP30-G3	200	10/20	15±2	1.5	5400	500g/m³
FP40-G4	200	10/20	20±2	1.0	3600	600g/m³

Please ask for other desired designs.



	air velocity[m/s]	
Techniques	<ul><li>needle punching</li><li>Adhensive</li><li>thermo-adhesion</li></ul>	
Colors	Blue/green/white/black	
Flame retardane	Fire production UL2	



#### Filter Pad

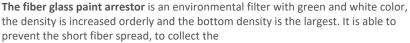
**Ceiling filter media pad** use several different specifications of non-silicon synthetic fibre, which take the technology of carding, lapping, thermal shaping and post processing etc.

The product has progressively structure and polyester reinforcement scrim or fiberglass mess adhesive on the air outlet which not only improve the filter media strength and stiffness, but also ensure that fibres do not fall off. Layered evenly, while increasing the accuracy of filter.

High temperature resistance can be reached 100°C.

#### Standard Size & Performace Parameters

Model	Efficie ncy	Initial- ΔP [Pa]	finalΔP [Pa]	Nominal airflow [m3/h]	Air velocity	Dust hold capacity (g/m²)	
FP-C-560	F5	25	450	900	0.25	450	
FP-C-660	F5	39	450	900	0.25	480	
		Please ask					
Material		Polyester fiber					
Flame retarda	nt	Fire production DIN53438-F1 and UL900-Class2					
Standard Size	(m)	2x20, 2x22, 1.6x22					



dissociative particles and to protect the air circulation system and the ceiling filtration systems.

It is mainly used to absorb the over dissociative particles and decrease the pollution. High temperature resistance can be reached  $170^{\circ}$ C.

	Model	Thicknes	Initial-ΔP [Pa]		Efficiency against synthetic dust [%]			Dust hold		
	Model	s (mm)	1.3 m/s	2.6 m/s	3.9 m/s	≧2μm	<b>≧</b> 5μm	≧10μm	capacity (g/m²)	
	FP-A-50	50	15	30	45	35	70	93	1850	
	FP-A-60	60	20	35	50	40	75	95	2100	
	FP-A-100	100	25	40	60	60	80	98	3200	
			Plea	ise ask for	other de	sired des	igns.			
Flame retardant DIN53438-F1										
Average paint mist capture rate			93-9	93-97%						
Standard Size (m)			0.7 /	0.7 / 0.75 / 0.8 / 1 / 1.2 / 1.5 / 2×20m						





**Cardboard Filters** are usually for prefiltration in ventilation and air-conditioning units, and in intake air systems and lines, so as to extend the operational lifetimes of the downsteams fine filters. The entire filter element contains no metal, and it therefore non-corroding and fully incinerable.

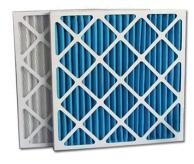


Type:	CF-G3	CF-G4
Class EN779	G3	G4
Efficiency (synthetic dust)	86%	91 %
Efficiency (atmospheric dust)	30%	40 %
Nominal air flow [m³/h×m²]	9500	9500
Initial-ΔP [Pa]	35	55
Recommended final ΔP [Pa]	200	250
Temp. resistance [°C]	65°	65°

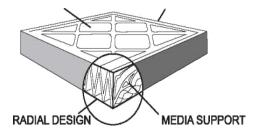
Model	Dir	mensions [r	Nominal airflow	
(E=efficiency)	Width	Height	Depth	[m³/h]
CF28759246-E (G3/G4)	287	592	46	1700
CF59259246-E (G3/G4)	592	592	46	3400

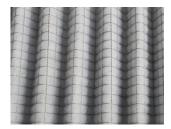
Please ask for other desired designs.

#### **Product Details**











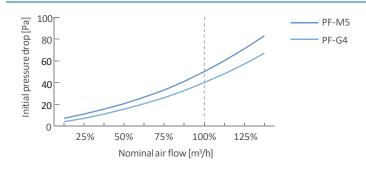
Panel filter with compact construction, small volume, light weight and ease to be purged, assembled and removed, may be installed separately or laminated in front of bag filter. Panel filter is mainly used to filter and remove ≥5µm dust particles in air conditioning system, protect the fine filter and prolong its service life. The ordinary panel filter size is 592×592.



Туре:	PF-G4	PF-M5
Class EN779	G4	M5
Efficiency against synthetic dust [%]	91%	97%
Initial-ΔP [Pa]	25	60
Recommended finalΔP [Pa]	250	400
Max. temp. [°C]	70°	70°

Model	Di	Dimensions [mm]				
(E=efficiency)	Width	Height	Depth	airoflw [m³/h]		
PF28759246-E (G4/M5)	287	592	46	1600		
PF28759246-E (G4/M5)	592	592	46	3200		

Note: We can also produce non-standard filters of 150≤W≤1184,150≤H≤1184 and 10≤D≤292.



Frame	galv. steel Aluminum
Operational conditions	max. rel. h. 100%, max. temp. 80°C
Options	Formed gasket (single / double side) EPDM gasket



#### Bag Filter - Coarse and Medium Dust

Bag coarse filter is mainly used to filter and remove ≥5µm dust particles in air conditioning system. The ordinary flat filter is 592×592, provided with 3-12 parallel bags, bag depth generally ranging from 250~900mm. Ultasound welding spacers between individual bags ensure an even airflow throughout the filter, which allows dust loading and even distribution. This results in a long service life of the filter and reduces energy costs. The bag can be provided with separation fence inside to effectively increase the filtration area.

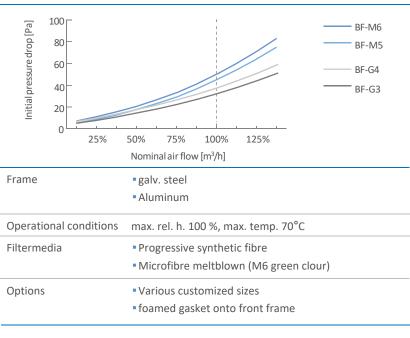


#### Standard Size & Performace Parameters

Type:	BF-G3	BF-G4	BF-M5	BF-M6
Class EN779	G3	G4	M5	M6
Arrestance EN779 [%]	>86%	>91%	>96%	>98%
Efficiency EN779 [%]	>25%	>35%	>55%	>65%
Initial-ΔP [Pa] at nominal air flow	30	35	45	50

Model	Dimensions [mm]		Nom	Pockets		
(E=efficiency)	Width	Height	Depth 200 [mm]	Depth 360 [mm]	Depth 500 [mm]	quantity
BF592592D-E (G3/G4)	592	592	1900	3400	4700	6
BF287592D-E (G3/G4)	490	592	1600	2800	4000	5
BF287287D-E (G3/G4)	287	592	900	1700	2300	3
BF592592D-E (M5/M6)	287	287	500	950	1300	3
BF287592D-E (M5/M6)	592	892	2700	4900	6000	6
BF287287D-E (M5/M6)	287	892	1400	2400	3000	3

Please ask for other desired designs. Bag quantity is available from 1-12



Bag fine filter is mainly used to filter and remove ≥1µm dust particles in air conditioning system, protect the subsequent sub-high efficiency or high efficiency filter and prolong their service life. Based on different filter performance requirements, the filter media of bag filter may be multi-layer compound synthetic fiber bucket materials, synthetic fiber non-woven fabrics of different thicknesses, glass fiber cotton, etc. The efficiency stays constant even with varying airflows. Also, the bags are intrinsically stiff while being exposed to the airstream. Inrder to guarantee a proper stability even with over-size filters.



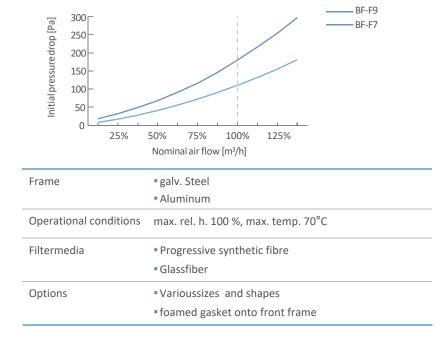
#### Standard Size & Performace Parameters

Type:	BF-F7	BF-F8	BF-F9
Class EN779	F7	F8	F9
Average efficiency (Em) for 0.4μm particles	80% ≤ Em < 90%	90% ≤ Em < 95%	95% ≤ Em
Initial-ΔP [Pa] at nominal air flow	110	120	185



Model	Dimensio	n [mm]	N	ominal air flow [m³/	'h]	Pockets
(D=depth/E=efficiency)	Width	Height	Depth 300 [mm]	Depth 500 [mm]	Depth 650 [mm]	quantity
BF592592D-E (F7-F9)	592	592	1570	2620	3400	8
BF490592D-E (F7-F9)	490	592	1300	2160	2800	6
BF287592D-E (F7-F9)	287	592	790	1210	1700	4
BF287287D-E (F7-F9)	287	287	400	660	850	4
BF592892D-E (F7-F9)	592	892	2360	3930	5100	8
BF287892D-E (F7-F9)	287	892	1180	1970	2550	4

Please ask for other desired designs. Bag quantity available from 1-12.



**V-bank filters** have been developed specifically for intake, exhaust and recirculated air filtration in HVAC systems posing stringent requirements for clean air quality and cost-efficiency. Efficiency from M5 to H14 can be made in V-bank form.

The medium efficiency V-bank filters serve as pre- or main-filtration elements for environments with voluminous airstreams and/or when long lifespan is necessary. The rigid and corrosion resistant plastic frame ensures easy disposal of the used filter because it is totally combustible. Existing bag filter stages can be easily upgraded by exchange due to the fact that V-bank filter fit into standard bag filter mounting frames.

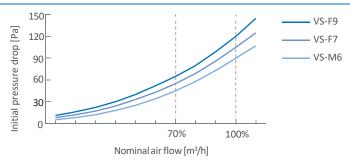


#### Standard Size & Performace Parameters

Туре:	VS-M6	VS-F7	VS-F9
Class EN779	M6	F7	F9
Efficiency EN779 [%]	65 %	85 %	95 %
Initial-ΔP[Pa](A/B)	65 / 120	75 / 140	85 / 165
Recc. final∆P	600	600	600
Max. temp. [°C]	65°	65°	65°

Model (E=efficiency N=V quantity)	Width	Height	Depth	Nominal airoflw [m³/h]	V quantity
VS592592292-E (M6-F9) N5	592	592	292	3000	5
VS592592292-E (M6-F9) N4	490	592	292	2400	4
VS287592292-E (M6-F9) N4	287	592	292	1200	4

Please ask for other desired designs. V quantity is available from 2-5v.



Frame	corrosion resistant plastic
Operational conditions	<ul><li>max. rel. h.100 [%]</li><li>max. temp. 65 [°C], short term peak up to max. 80 [°C]</li></ul>
Spacers	thermoplastic (minipleat)
Filtermedia	high quality glass fibre paper (water resistant), pressure drop may temporarily increase at high humidity levels
Combustible	Yes
Options	<ul> <li>burst protector / protection screen</li> <li>foamed gasket on theclean air side of the flange</li> <li>V quantity is available from 2-5v</li> </ul>

**V-bank HEPA filter** ideally suit as main filter stage where high air flow rates and maximum efficiency are required, for the removal of particles, toxic dusts or aerosols from the exhaust or supply air flows.

The media is water-repellent and therefore usable within air flows of high humidity. The air entry profiles are aerodynamically shaped to reduce the pressure drop at high flow rates.

The filter frame offers maximum rigidity and is corrosion free. Existing bag filter stages can be easily upgraded by exchange due to the fact that V-bank filter fit into standard bag filter mounting frames.

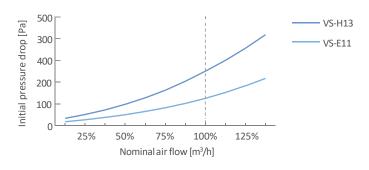


#### Standard Size & Performace Parameters

Type:	VS-E11	VS-H13	VS-H14
Class EN1822	E11	H13	H14
Efficiency EN1822@ MPPS [%]	>95 %	>99,95 %	>99.995%
Initial-ΔP[Pa] at nominal airflow	125	250	250
Rec. final pressure drop [Pa]	600	600	600
Max. temp. [°C]	65°	65°	65°

Model (E=efficiency N=V quantity)	Width	Height	Depth	Nominal airflow [m³/h]	V quantity
VS592592292-E (E11-H14) N5	592	592	292	3000	5
VS592592292-E (E11-H14) N4	490	592	292	2400	4
VS287592292-E (E11-H14) N4	287	592	292	1200	4

Please ask for other desired designs. V quantity is available from 2-5v.



Frame	corrosion resistant plastic
Operational conditions	<ul><li>max. rel. h.100 [%]</li><li>max. temp. 65 [°C], short term peak up to max. 80 [°C]</li></ul>
Spacers	thermoplastic (minipleat)
Filtermedia	high quality glass fibre paper (water resistant), pressure drop may temporarily increase at high humidity levels
Combustible	Yes
Options	<ul> <li>burst protector / protection screen</li> <li>foamed gasket on theclean air side of the flange</li> <li>V quantity is available from 2-5v</li> </ul>

## V-bank Medium Filter - Box type

**V-bank box type high volumn flow filters** are used in intake, exhaust and recirculated air filtration in HVAC systems or air conditioning systems with ultrastringent requirements for clean air quality and sterility.

Maximum effective media area provides greater airflow capacity, low resistance, high dust holding capacity, and unusually long service life.

The V-bank configuration provides greater airflow capacity and longer service life, while lowering operating costs.

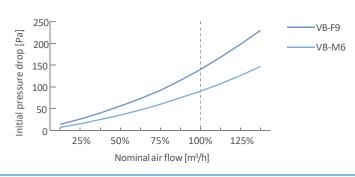


#### Standard Size & Performace Parameters

Type:	VB-M6	VB-F7	VB-F9
Class EN779	M6	F7	F9
Efficiency EN779 [%]	>65 %	>85 %	>95 %
Inirial-ΔP [Pa] at nominal air flow	90	110	130
Max. temp. [°C]	80	80	80

Model (E=efficiency N=V quantity)	Width	Height	Depth	Nominal airoflw [m³/h]	V quantity
VB592592292-E (M6-F9) N5	592	592	292	3400	5
VB592592292-E (M6-F9) N4	490	592	292	2800	4
VB287592292-E (M6-F9) N4	287	592	292	1700	4

Please ask for other desired designs. V quantity is available from 2-5v.



Frame	galv. steel
	• stainless
Spacers	glass fibrestrings
Filtermedia	high quality glass fibre paper (water resistant)
Options	foamed gasket on the inlet air side

## V-bank HEPA Filter - Box Type

**V-bank box type HEPA filters** use sub-micron glass fibers formed into a high-density paper.

Glass filament separators are used to form the media into mini-pleat panels that withstand high-velocity airflow.

Mini-pleat packs are sealed to the frame with two-component polyurethane to increase rigidity and prevent bypass leakage.

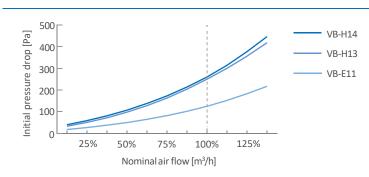
#### Standard Size & Performace Parameters

Туре:	VB-E11	VB-H13	VB-H14
Class EN1822	E11	H13	H14
Efficiency EN1822@ MPPS [%]	>95 %	>99,95 %	>99,995 %
Initial-ΔP[Pa]at nominal airflow	125	220	250
Rec. final pressure drop [Pa]	600	600	600
Max. temp. [°C]	80°	80°	80°



Model (E=efficiency N=V quantity)	Width	Height	Depth	Nominal airoflw [m³/h]	V quantity
VS592592292-E (E11-H14) N5	592	592	292	3400	5
VS592592292-E (E11-H14) N4	490	592	292	2800	4
VS287592292-E (E11-H14) N4	287	592	292	1700	4

Please ask for other desired designs. V quantity is available from 2-5v.



Frame	■galv. steel
	stainless
Spacers	glass fibrestrings
Filtermedia	high quality glass fibre paper (water resistant)
Options	foamed gasket on the inlet air side

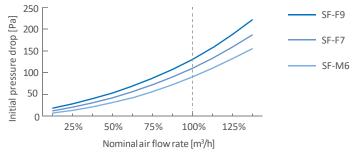
## Separator Filter - Medium

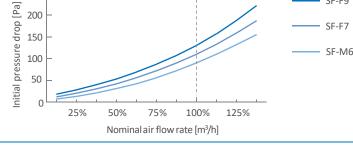
**Separator medium filters** are suitable as pre- or main filtration element in systems to meet demands for high loads and extended temperature ranges. The highquality media is laid out in narrow parallel pleats, and fixed evenly by spacers made from corrugated aluminum foil. Maximum effective media area provides greater airflow capacity, low resistance, high dust holding capacity, and long service life.

#### Standard Size & Performace Parameters

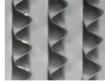
Туре:	SF-M6	SF-F7	SF-F9
Class EN779	M6	F7	F9
Efficiency EN779 [%]	65 %	85 %	95 %
Initial-ΔP[Pa]at nominal airflow	90	110	130
Max. temp. [°C]	120°	120°	120°

Frame	galv. steel stainless
Operational conditions	• max. rel. h. 100 [%] temperature resistance max. 120 [°C]
Spacers	corrugated aluminium, optional: stainless, paper
Filtermedia	high quality glass fibre paper (water resistant)
Options	<ul> <li>burst- and protection screens (single or both sides)</li> <li>more filtermedia for higher airflows</li> <li>Single/double header, single/double flanges, handles</li> <li>gasket on both sides</li> <li>dedustable filtermedia</li> </ul>









Separators



Wedge Shaped Pleats

#### Separator Filter - HEPA/ULPA

Seperator HEPA/ULPA filter can bear a high mechanical load capacity and may be used to filter SSpended matter such as viruses, germs, toxic dusts, aerosols as well as in environments requiring a virtually sterile or dust-free air.

Separator filters are designed to meet demands for high loads and extended temperature ranges up to  $280^{\circ}$ C, can meet particular stringent requirements for air purify, usually used in recirculating air equipment of drying processes in the automotive or pharmaceutical industry, process dependability and cost-efficiency.



#### Standard Size & Performace Parameters

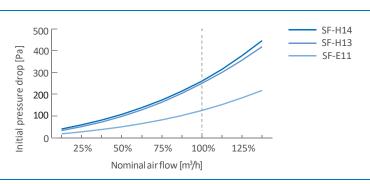
SF610610292-E (E11-H14)

Type:	SF-E11	SF-H13	SF-H14
Class EN1822	E11	H13	H14
Efficiency EN1822@ MPPS [%]	95%	99.95%	99.995%
Initial-ΔP[Pa]at nominal airflow	125	250	260
Max. temp. [°C]	120°/opt.280°	120°/opt.280°	120°/opt.280°

**Nominal** Model Width Height Depth airoflw (E=efficiency) [m<sup>3</sup>/h]SF610610150-E (E11-H14) SF762610150-E (E11-H14) SF820610150-E (E11-H14) SF320320220-E (E11-H14) SF484484220-E (E11-H14) SF630630220-E (E11-H14) SF1260630220-E (E11-H14) SF592592292-E (E11-H14) 



Please ask for other desired designs.



#### MiniPleat HEPA / ULPA Filter

MiniPleat HEPA/ULPA are used in intake and recirculating air filtration for cleanrooms and in laminar flow hoods with ultra-stringent requirements for clean air and sterility. The MiniPleat technology employed ensures flow-friendly geometry and equidistance of the pleats, with homogeneous media velocity coupled with a very low pressure drop. This means particularly cost-efficient and dependable operation plus a quasi-laminar outflow.

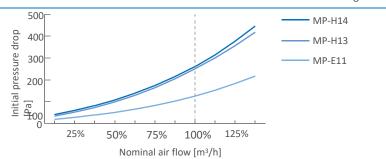
Available in all dimensions commonly encountered on the market.

#### Standard Size & Performace Parameters

Type:	MP-E11	MP-H13	MP-H14	MP-U15
Class EN1822	E11	H13	H14	U15
Efficiency EN1822@ MPPS [%]	>95 %	>99,95 %	>99,995 %	>99,9995 %
Initial-ΔP[Pa]at nominal airflow	95	125	160	250
Rec. final pressure drop [Pa]	200	300	350	450
Max. temp. [°C]	80°	80°	80°	80°

Model (E=efficiency)	Width	Height	Depth	Nominal airoflw [m³/h]
MP61061069-E (E11-U17)	610	610	69	1000
MP122061069-E (E11-U17)	1220	610	69	2000
MP117057070-E (E11-U17)	1170	570	70	1100
MP117087070-E (E11-U17)	1170	870	70	1750
MP1170117070-E (E11-U17)	1170	1170	70	2200

Please ask for other desired designs.



Frame	Aluminum
Separator	EVA
Filtermedia	high quality glass fibre paper (water resistant)
Options	Foamed endless gasket (single / double side)
	Flat EPDM gasket
	Knife edge









Foamed endless gasket

■ Flat EPDM gasket

#### Gel-seal MiniPleat HEPA / ULPA Filter

**Gel-seal MiniPleat HEPA filters** have the tank filled with gel, which is reliable and particularly suitable for workplaces for DOP test and leakage detection on site. This filters is mainly installed at the end of  $0.5\mu m$  clean rooms and purifying equipment in pharmaceutical industry to control particulates larger than  $0.5\mu m$  and microorganisms in the clean room or equipment operating areas. Gel seal minipleat HEPA filters have side seal type and top seal type for options.

#### Standard Size & Performace Parameters

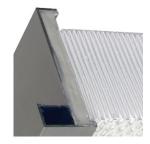
Model (E=efficiency)	Width	Height	Depth	Nominal airflow [m³/h]
MP41041093-E (E11-U17)	410	410	93	500
MP55055093-E (E11-U17)	550	550	93	1000
MP65065093-E (E11-U17)	650	650	93	1500
MP106055093-E (E11-U17)	1060	550	93	2000
MP370370104-E (E11-U17)	370	370	104	500
MP510510104-E (E11-U17)	510	510	104	1000
MP610610104-E (E11-U17)	610	610	104	1500
MP1020510104-E (E11-U17)	1020	510	104	2000

Please ask for other desired designs.

Frame	Aluminum
Separator	EVA
Filtermedia	high quality glass fibre paper (water resistant)
Options	<ul><li>Side gel seal</li><li>Top gel seal</li><li>Double gel seal</li><li>Gasket and gel seal</li></ul>







#### Carbon Filter Serials

**Carbon non-woven fabrics:** compounded by special production process with modified activated carbon filled in two layers of non-woven fabrics.

It can filter tiny particles in the air, pollen, bacteria, industrial waste gases and dust, etc., and prevent such substances from entering the air-conditioner to destroy the air-conditioning system and endangering human health in the vehicle.

Filter screens can effectively remove harmful substances such as PM2.5, formaldehyde and TVOC according to requirements of different applications.

**Modified activated carbon:** adsorb all harmful gases in air such as formaldehyde, ammonia, benzene, xylene, and chlorine, and quickly eliminate the ordor of decoration. The performance is several times that of ordinary activated carbon.

**TVOC-removing particles:** greatly reduce the concentration of TVOC, effectively control the harm of TVOC

Active potassium permanganate pellet: high removal efficiency for harmful gases such as hydrogen sulfide, sulfur dioxide, chlorine, formaldehyde, and nitric oxide.

Nano mineral crystal particles: due to multiple pores, the sizes of pores of the nano mineral crystal are nano-scale, and the pore surface has polar characteristics. Comparing pores of the same number, it has a strong adsorption effect on polar gas compounds of nanoscale molecular size.

**Coconut shell activated carbon:** refined from high quality coconut shell by physical method. It has the characteristics of large surface area, high strength, uniform particle size, well-developed pore structure and strong adsorptive property.

#### Customized efficiency and size















#### Auto-R-Machine

Auto-Roll-Machine automatic roller shutter filters are characterized by mature technology, flexible design, easy installation and easy control. This unit has low investment, low operating cost and high control precision, and fully meets various primary purification requirements. It is especially suitable for environments with large air volume and high air flow dust content.

- Main Features Muti-module splicing design for easy transportation and installation High-quolity lotus pine filter
  - High-quality fluffy filter material
  - Intelligent control system

Efficiency Class: G3, G4 or M5



#### Standard Size & Performace Parameters

Rated air volume (m'/h)

High of Filter -	Filter Width-Ft (mm)									
Ft (mm)	11 (3353)	12(3658)	13(3962)	14(4267)	15(4572)	1 6(4877)	17(5182)	18(5486)		
5 (1524)	30071	32882	35684	38495	41306	44116	46927	49729		
6 (1829)	39028	42676	46312	49961	53609	57257	60905	64541		
7 (2134)	47985	52471	56941	61426	65912	70397	74882	79353		
8 (2438)	56913	62233	67535	72855	78175	83494	88814	94117		
9 (2743)	65870	72027	78164	84321	90478	96635	102792	108929		
10 (3048)	74827	81821	88792	95786	102781	109775	116769	123741		
11 (3353)	83784	91615	99421	107252	115084	122915	130747	138553		
12 (3658)	92740	101409	110049	118718	127387	136056	144724	153365		

Frame	<ul><li>SS304</li><li>cold rolled sheet</li></ul>			
Top filter box Bottom Holder	<ul> <li>Fully sealed structure to ensure filter material is not contaminated</li> <li>Ensures dirty media is rewound and does not contaminate clean media</li> </ul>			
Control box	Differential pressure control device, optional photosensitive device control box			
Power unit	Motor and reduction gear (1PH220V or 3PH380V)			
Operating temperature	-10°C~40°C			
Installation method	Vertical or horizontal			

## PURIFICATION EQUIPMENT







20 9001

#### Certificate of Approval

Certificate No.: 10116Q17499R0S

Awarded to

#### **Wuxi Youth Technology Limited**

Organization Code Certificate No.:913202110 Add.:298 Fangcheng Road, Xinwu, Wuxi, Jiar

Beijing ZhongLianTianRun Certification Center (ZLTR) certify that the ment System of the above organization has been assessed and found to be in accordance with the requirements of the standard: ISO9001: 2008

#### SCOPE OF CERTIFICATION/REGISTRATION inless steel equipment, HPL furniture, air filter design,

This certificate is made valid when used with certification scopes and the requirements of applicable laws and regulations. These requirements include, but are not limited to, administrative permits, scopes of qualifications, and CCC requirements.

Subject to operation conditions in requirements conformits with Quality Management System,
This Certificate is valid for a period of three years only,
Date from: Nov23rJ.0218 To Nov14th,2020

The effectiveness of this Certificate shall be Validated by periodic surveillance audit of 2TLTR for minherance.

This certificate using the term to Nov14th,2019 please Nov14th,2019

to supervision or overluc certification audit, through the audit, the certificate invalid. Indentation of this certificate can be touch on the first of the properties and the continuous continuous of this certificate can be touch on the properties.







#### Beijing Zhongliantianrun Certification Center



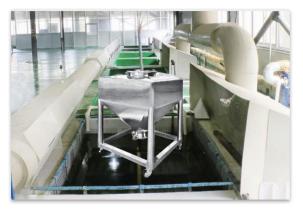




YASKAWA and ABB welding robots



Laser cutting machine



Degreasing, washing, surface conditioning, phosphating

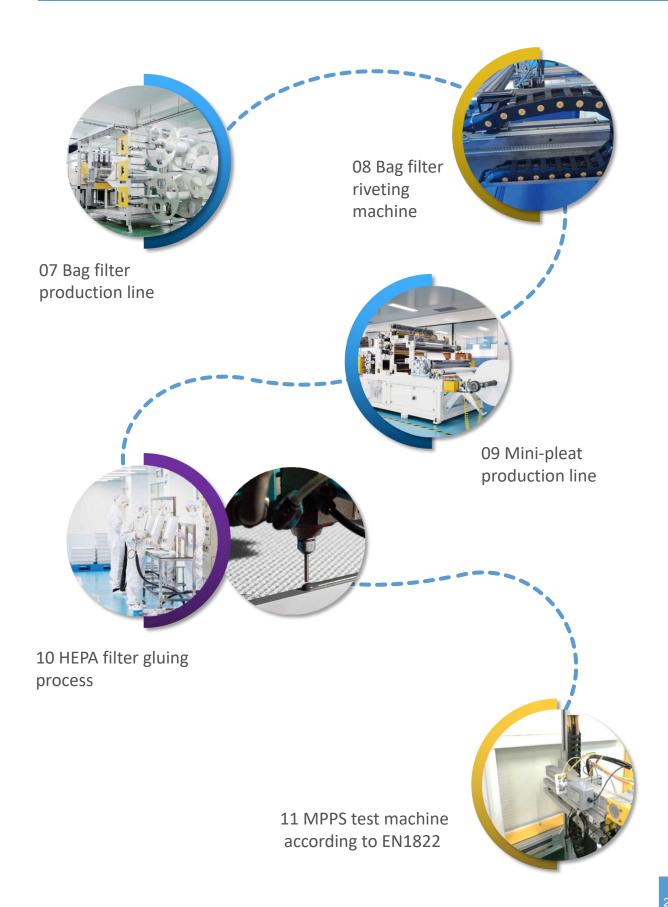


CNC bending machine



**Electrostatic coating** 





**HEPA box**, also called filter housing, is the ideal terminal filter device for air conditioning systems requiring purification to meet the cleanroom level. It can provide a desired static pressure before airing the HEPA, thus making the air outlet uniformity. We are extremely focused on the details of our products, making our HEPA box superior to the most products on the market.

We use one-piece bending design together with robort welding joint to ensure excellent leak-proof performance. Representative filter from each batch type and production run are subjected to a complete test flow evaluation to determine efficiency, pressure drop and dust holding capacity.

Airflow pipe can be connected directly through top access or side access with either circular or rectangular inlet.



#### Standard Size & Performace Parameters

Model	HEPA Size (mm)	Box Size (mm)	Flange Size of Duct (mm)	Height of Box (mm)	Hole size (mm)
HB 500	410×410×93	460×460×250	200×200	500	470×470
HB 1000	550×550×93	600×600×250	320×200	1000	610×610
HB 1500	650×650×93	700×700×250	320×250	1500	710×710

Please ask for other desired designs.

Frame	<ul><li>Steel powder coated</li><li>Aluminum</li><li>SS304</li></ul>
Grille	<ul><li>Perforated</li><li>Louvers</li><li>Swirl</li></ul>
Options	<ul><li>Match gasket HEPA</li><li>Match gel seal HEPA</li><li>Top connected</li><li>Side connected</li></ul>









#### FFU Fan-Filter Unit

**FFU** is the simplest purifying equipment consisting of blower and HEPA filter, and the most basic type in air purifying equipment. Due to the one-to-one correspondence between HEPA filter and blower, a negative pressure area is formed outside the unit case to enable negative pressure sealing function. FFU may be used separately or in combination to achieve higher cleanness easily. FFU makes the design of clean room easier and more reliable. FFU, characterized by low energy consumption, low noise and low operating cost, is widely applied to unidirectional flow and turbulent flow clean room and working station, unidirectional flow hood, clean booth and local purifying equipment in microelectronics, electronics, optics, bioengineering and other industries.



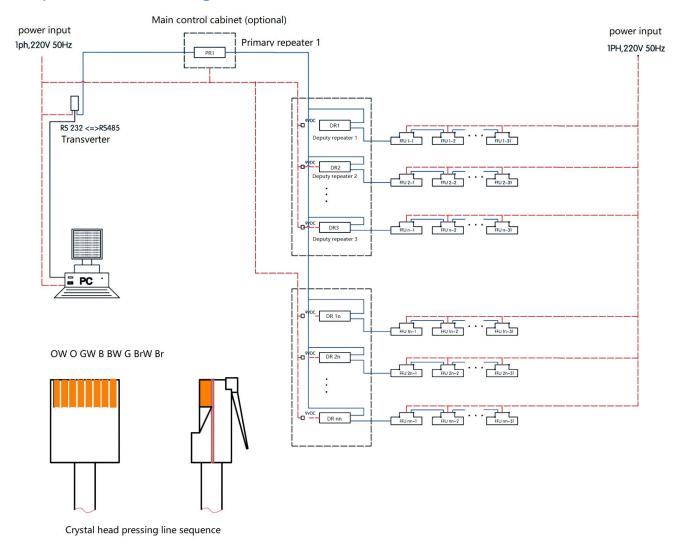
#### Standard Size & Performace Parameters

		Futurnal	Air Malarra	Initial resis	tance (Pa)		
	Model	External Dimension L×W×H	Air Volume (m³/h)/ (m/s)	Efficiency (H14)0.3μm ≥99.995%	Efficiency (U15)0.1μm ≥99.9995%	Noise (dB)	Power (kW)
FF	U10-11757	1170×570×350	1000/0.45			57	0.18
FF	U15-11787	1170×870×350	1500/0.45	100	160	60	0.25
FFU	J20-117117	1170×1170×350	2000/0.45			63	0.37

Please ask for other desired designs

Frame	<ul><li>Zinc Aluminized sheet</li><li>SS</li></ul>
blower	DC/AC
Speed control	<ul><li>Five speed control</li><li>Stepless speed</li></ul>
Options	DOP test port

#### System control framework diagram



#### **Motor Technical differences**

Items	Youth EC motor	Traditional motor
Rotor magnet	MQ one piece	Surface mount ferrite, EMB has 6pcs. Mount gap and megnet power will affect the efficiency
Drive technology	Sensorless	Hall-effect sensor, if sensor damaged, need to change the whole motor
Operation	Separate PCB from motor	Integrated, high hall-effect sendor defective rate
IP level	IP44	IP20
EDM protection	EDM protection / optional	No, shaft current will hurt bearing, cause motor defective
Motor efficiency	90%	80%

Class A unidirectional flow hood (UFH), also called Laminar flow hood (LAF) is a type of air purifying equipment providing Class A unidirectional flow and thus creating highly clean environment.

UFH is used for the protection of the filling / packaging operations of products that are sensitive to contamination, may be used separately or in combination. It can be designed to have independent air return system, or to connect with current duct.



#### Standard Size & Performace Parameters

Model	External Dimension L×W×H	Internal Dimension L×W	Upstream Rated air velocity (m/s)	Working area clean class (grade)	Noise (dB)	Illumination (Lx)	Power (kW)
UFH-1260	1200×600×600	1200×600					0.3
UFH-1010	1000×1000×600	1000×1000			CF	200	0.45
UFH-1212	1200×1200×600	1200×1200	0.45±200/	А			0.6
UFH-2010	2000×1000×600	2000×1000	0.45±20%	А	65	300	0.9
UFH-2012	2000×1200×600	2000×1200					1.2
UFH-2020	2000×2000×600	2000×2000					1.8

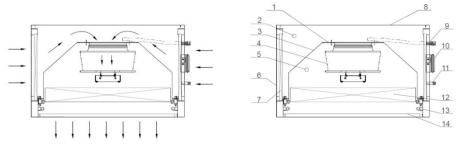
Please ask for other desired designs.

#### Main Features

- Combination and modularization
- Less investment, quicker effects, easier installation, lower energy consumption
- Double negative pressure
- Flexible way to install
- High quality HEPA filter, high cleanness, ensure sterility
- Rich control module, meet different requirements

#### Options

- Hanging mount: hoisting or ceiling
- Floor stand
- Air supply from air duct
- Air supply by built-in blower



Schematic of Airflow

Schematic of Structure

- 1. Air deflector
- 2. Negative pressure plenum area
- 3. Inner frame
- 4. blower
- 5. Positive pressure plenum area
- 6. Return air orifice
- 7. Panel filter
- 8. Outer frame
- 9. DOP supply port
- 10. differential pressure gauge
- 11. DOP test port
- 12. Gel seal HEPA
- 13. Illumination
- 14. Polyester ceiling

**Pass box** include dynamic pass box and static pass box.

It is used for the transfer of materials / products between two areas of different classes.

The doors are interlocked by magnetic device and provide a buffer area for transferring material/product through the room with different class.

Provided with UV germicidal lamp, or ozone generator sterilization system based on the user's demand.





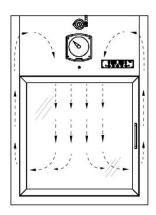
#### Standard Size & Performace Parameters

Model	External Dimension L×W×H	Internal Dimension W×D×H	clean class	Upstream Rated air velocity (m/s)	UV sterilizer (W)	Ozone Concentr ation (ppm)	Noise (dB)	Power (kW)
PB4-50	700×560×1000	500×500×500			8			0.15
PB5-60	800×660×1100	600×600×600	А	0.45±20%	15	20~50	65	0.15
PB6-70	1000×860×1300	800×800×800			15			0.15

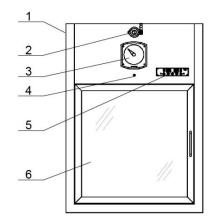
Please ask for other desired designs.

#### Options

- Electrical or Mechanical interlocking system.
- Air Shower Type
- UV Lamp Sterilization
- Easy-to-install by Wall Mounted, Floor Mounted or Pit Mounded
- Customized Size and Function Design



Schematic of Airflow



Schematic of Structure

- 1. Frame
- 2. DOP supply port
- 3. Pressure differential gauge
- 4. DOP test port
- 5. Control panel
- 6. Double glass door

**Transfer Hatch** is used for transferring materials. The hatch are all made of SS 304 with a surface finish of Ra < 0.8 $\mu$ m. There will be climbing ramp and rollers made of SS304 at the bottom of the hatch for convenience of material transfer.

The doors are interlocked by magnetic device and provide a buffer area for transferring material/ product through the room with different class. Provided with UV germicidal lamp, or ozone generator sterilization system based on the user's demand.





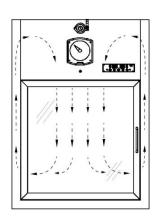
#### Standard size & Performace Parameters

Model	External Dimension L×W×H	Internal Dimension W×D×H	clean class	Upstream Rated air velocity (m/s)	UV sterilizer (W)	Ozone Concentr ation (ppm)	Noise (dB)	Power (kW)
HT4-50	700×560×1000	500×500×500			8			0.15
HT5-60	800×660×1100	600×600×600	А	0.45±20%	15	20~50	65	0.15
HT6-70	1000×860×1300	800×800×800			15			0.15

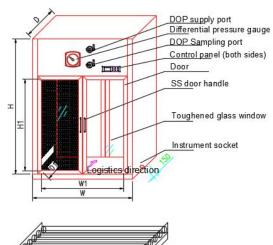
Please ask for other desired designs.

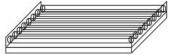
#### Options

- Electrical or Mechanical interlocking system.
- Air Shower Type
- UV Lamp Sterilization
- Easy-to-install by Floor Mounted or Pit Mounded
- Customized Size and Function Design



Schematic of Airflow





Schematic of Structure

## **VHP Aseptic Transfer Chamber**

VHP Aseptic Transfer Chamber integrates a vaporized hydrogen peroxide (VHP) generator to provide VHP gas to the inside of the pass box for biological decontamination treatment on the outer surface of the material to prevent the material from entering A from non-grade areas or low-grade clean areas, B-level critical areas bring pollution. It can be used for all kinds of clean and dry items that need to be delivered in aseptic production, including packaging materials, instruments, raw and auxiliary materials, accessories, environmental monitoring equipment, etc. that enter the A and B key areas.



#### Standard Size & Performace Parameters

Model	External Dimension L×W×H	Internal Dimension W×D×H	Air velocity (m/s)	Volumn (m³)	Power Capacity	Sterilant	Sterilizatio n cycle
VHP-50	900×600×1925	500×500×600		0.15			
VHP-60	900×700×2025	600×600×700	0.36-0.54	0.25	AC220V ±22C/50Hz ± 1Hz 2500W	30% analytical grade hydrogen peroxide solution	
VHP-70	1000×800×2150	700×700×800		0.4			>1 hour
VHP-1	1300×1100×2150	800×1000×1200		1			>1 nour
VHP-1.5	1600×1200×2150	1100×1100×1200		1.5			
VHP-2.5	1560×1400×2335	1100×1300×1750		2.5			

Please ask for other desired designs.

- Main Features Inner chamber and tank with radius corners for better cleanability.
  - Tempering glass in doors provide a clear view of internal chamber.
  - Pneumatically interlocked doors ensure only one door can be open at one time when operating.
  - The main body of the transfer hatch is constructed of304L industrial-grade stainless steel.
  - Two operation modes:manual or automatic. Siemens PLC control.
  - H14 grade HEPA filter
  - Environmental friendly and leaving no harmful residues and lingering odor.
  - Low temperature decontamination.
  - All detail info can be recorded, comply with GMP, USP standard.
  - Fault alarm function
  - Bacteria killing rate can reach 6 log when take Bacillus stearothermophilus and Bacillus subtilis black variant as challenge.

#### Options

- Low temperature (18-26 °C) compatible with Biologics
- Faster process time ≤50min for 3 m³ chamber
- Use 7% Analytical Reagent

## Sampling Booth

**Sampling booth** is used for the sampling, dosing or weighing of the chemical components, sampling antibioticos, hormones, cytostatics, etc either powders or liquids. that make up the finished products.

The sampling booth allow to obtain delimited environment area of clean and sterile air class ISO 5, through a unidirectional and descendant air filtered flow with lower pressure in the operation area. assures a slight depression and, therefore, an isolating from the surrounding area. The possibility of cross contamination with other products is avoided.



#### Standard Size & Performace Parameters

Model	External Dimension L×W×H	Internal Dimension W×D×H	Upstream Rated air velocity (m/s)	Working area clean class (grade)	Noise (dB)	Illumination (Lx)	Power (kW)
SB12-120	1300×1200×2570	1200×600×2000	0.45±20%	Same to background	75	300	0.3
SB16-100	1600×1800×2570	1500×1200×2000					0.45
SB24-120	2100×2700×2570	2000×2000×2000					0.6
SB32-200	3100×2700×2570	3000×2000×2000					0.9
SB48-120	4100×3200×2570	4000×2500×2000					1.2

Please ask for other desired designs.

#### Main Features

- Round corner design for the working area, dust free, easy to clean
- Air curtain isolated, convenient operation
- Excellent unidirectional flow pattern, no dust dispersion

#### Options

- Material SS 304 / 316
- Three stages filtration: G4, F8, H14
- Exhaust Filter with suitable size
- Air Flow Rate:0.45 + 0.1m/sec
- Differential Pressure
- Complete weighing management system with function of scanning code, weighing and labeling

**Air Showers** are enclosed chambers placed at the entry and exit points of a cleanroom or other controlled environment.

Using high-velocity jets of air and HEPA or ULPA air filter systems, cleanroom air showers remove loose contaminants from people and products before they enter the cleanroom, reducing or eliminating product defects for increased yields.

Contaminants are easily transported by people and objects and a simple spec of lint or debris could cause issues in some cleanroom environments. Therefore, cleanroom air showers have become a vital component in maintaining the cleanliness of cleanrooms and other clean-critical environments.





#### Standard Size & Performace Parameters

Model	External Dimension L×W×H	Internal Dimension W×D×H	Nozzles quantity	Power supply	Power Consumpti on (KW)	HEPA size L×W×D
AS11-120	1200×1000×2150	800×900×2000	6		0.75	610×610×69×1
AS12-130	1300×1000×2150	800×900×2000	12	AC/3N/ 380V/50H	1.12	610×610×69×2
AS22-130	1300×1300×2150	800×1200×2000	16		2.2	915×610×69×2

Frame	<ul><li>SS304</li><li>SS316</li><li>Steel powder coated</li></ul>
Air speed	≥25m/s
Air shower time	0-99s Ajustable









# **Fogging Shower**

**Mist Shower/Fogging shower** is now widely use in industries for decontamination from the cloths of the user. A mixture of air and water is spray on the cloths of the users. Comes with the microprocessor or PLC unit to control the whole process.

Our versatile mist shower are quite adept at controlling the level of contamination for particle sensitive processes such pharmaceutical drug testing and for research applications involving molecular biology and biochemical experiments, cell and tissue culture experiments etc.

The entire mist shower assembly is HEPA/ULPA filtered, pre-wired and tested, ready to use with a simple plug-in, therefore providing an unmatched ease of operation.



#### Standard Size & Performace Parameters

Model	External Dimension L×W×H	Internal Dimension W×D×H	Nozzles quantity	Power supply	Power Consumption (KW)
MS11-120	1200×1000×2150	800×900×2000	6		0.75
MS12-130	1300×1000×2150	800×900×2000	12	AC/3N/ 380V/50H	1.12
MS22-130	1300×1300×2150	800×1200×2000	16	2221,2211	2.2

Frame	• SS304 • SS316
Air speed	≥25m/s
Air shower time	0-99s Ajustable
D 1400	CCOOK IDAG
Door MOC	SS304/316







## BIBO (Bag In Bag Out)

**BIBO Bag in Bag Out Filter** Systems are used to filter and contain contaminants and dangerous substances in hazardous environments. With this system, maintenance personnel are protected from direct contact with the inside of the shell and dangerous contaminants during filter change and testing.

Bag in Bag Out Filtration System includes pre-filter (and maintenance access door), HEPA or ULPA filter (and maintenance access door), inlet & outlet connecting duct flange unit, frame and mounting bracket. The equipment is full welded with argon welding except maintenance access door. It can be made not only at workshop but on site also.



### Standard Size & Performace Parameters

Model	External Dimension W×D×H	HEPA size W×D×H	Rated air flow (m³/s)
BIBO-1	400×725×900	305×610×292	1700
BIBO-2	705×725×900	610×610×292	3400
BIBO-3	705×1175×900	610×915×292	5100

Frame	<ul><li>SS304</li><li>Steel powder coated</li></ul>
Filters Stage	3 stage (G4, F9,H13/14)
Bypass test	DIN 19464, DIN 25414
Pressure resistance	100mBar, max. 500mBar





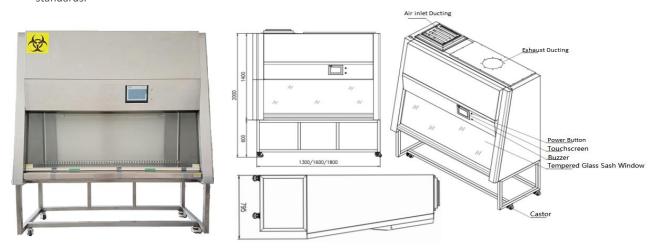
## Biological Safety Cabinet - Class II A2

Class II A2 Biological safety cabinet (BSC) is a box-type air purification negative pressure safety device that can prevent some dangerous or unknown biological particles from escaping aerosols during experimental operation. It is widely used in scientific research, teaching, clinical inspection and production in the fields of microbiology, biomedicine, genetic engineering, biological products, etc. It is the most basic safety protection equipment in the first-level protective barrier of laboratory biosafety.

Vertical laminar negative pressure model, 70% of the airflow is filtered and recycled, and 30% of the airflow can be discharged into the room or connected to the exhaust system after being filtered.

Safety interlock system for sterilization systems.

Large-screen LCD display, real-time monitoring of running status, password management can be set to prevent misoperation, display the life of the filter and the running time of the blower and UV lamp. Each biological safety cabinet is factory tested for safety and product performance in accordance with international standards.



#### Standard Size & Performace Parameters

Modelparameter	YT-S/ F-1300-A2	YT-S/F-1600-A2	YT-S/F-1800-A2		
Dimensions W×D×H (mm)	1300×795×2000	1600×795×2000	1800×795×2000		
Work area size W×D×H (mm)	1100×630×630	1400×630×630	1600×630×630		
Front window operating opening height (mm)		150-200			
Matarial		Working area SS316L			
Material	External SS304 or Cold	-rolled steel with anti-bacteri	a power coating		
Airflow Mode (External Exhaust Flow Proportion)	Vertical downflow, 70% air re-circulation, 30% air exhaust				
Blower model and quantity	D4E220, 1 unit D4E225, 1 unit D4E225, 1 urit				
Specification and quantity of air velosity sensor		YGM215 , 2 pcs			
HEPA filter model		U15			
Exhaust filter size and quantity	600×400×100, 1 piece	800×400×100, 1 piece	1000×400×100, 1 piece		
Air supply filter size and quantity	1105 × 465 × 70 , 1 piece	1405 × 465 × 70 , 1 piece	1605 × 465 × 70 , 1 piece		
UV Lamp Specifications and Quantity	T5 -20W, 1 pc	T6 - 30W, 1 pc	T6 -40W, 1 pc		
Lighting Specifications and Quantity	LED-8W,1pc	LED- 12W , 1pc	LED- 14W , 1pc		

# Biological Safety Cabinet - Class II B2

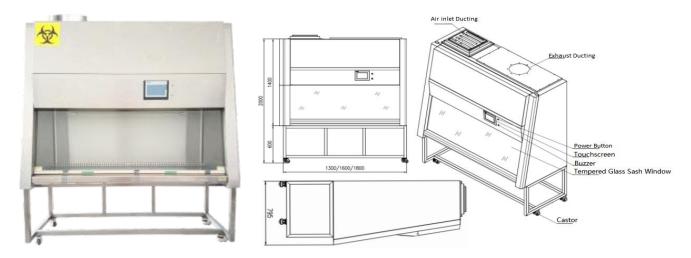
Class II B2 Biological safety cabinet (BSC) The working principle is mainly to suck the air in the cabinet to the outside, keep the negative pressure in the cabinet, and protect the staff through vertical airflow; the outside air is filtered by HEPA and enters the safety cabinet to avoid pollution. The air in the cabinet also needs to be filtered by HEPA filter and then discharged into the atmosphere to protect the environment.

Vertical laminar negative pressure model, 100% of the airflow can be discharged into the room or connected to the exhaust system after being filtered.

Safety interlock system for sterilization systems.

Large-screen LCD display, real-time monitoring of running status, password management can be set to prevent misoperation, display the life of the filter and the running time of the blower and UV lamp.

Each biological safety cabinet is factory tested for safety and product performance in accordance with international standards.



#### Standard Size & Performace Parameters

Modelparameter	YT-S/ F-1300-B2	YT-S/F-1600-B2	YT-S/F-1800-B2			
Dimensions W×D×H (mm)	1300×795×2000	1600×795×2000	1800×795×2000			
Work area size W×D×H (mm)	1100×630×630	1400×630×630	1600×630×630			
Front window operating opening height (mm)	150-200					
D. A. a. a. a. a. l.		Working area SS316L				
Material	External SS304 or Cold-rolled steel with anti-bacteria power coating					
Airflow Mode (External Exhaust Flow Proportion)	Vertical downflow, 100% air exhaust					
Blower model and quantity	D4E220, 1 unit	D4E225, 1 unit	D4E225, 1 unit			
Specification and quantity of air velosity sensor	YGM215 , 2 pcs					
HEPA filter model		U15				
Exhaust filter size and quantity	600×400×100, 1 piece	800×400×100, 1 piece	1000×400×100, 1 piece			
Air supply filter size and quantity	1105 × 465 × 70 , 1 piece	1405 × 465 × 70 , 1 piece	1605 × 465 × 70 , 1 piece			
UV Lamp Specifications and Quantity	T5 -20W, 1 pc	T6 - 30W, 1 pc	T6 -40W, 1 pc			
Lighting Specifications and Quantity	LED- 8W , 1pc	LED- 12W , 1pc	LED- 14W , 1pc			

## **Chemical Shower**

Chemical shower is mainly used for cleaning and disinfecting the surface of positive pressure protective clothing in biosafety laboratories (ABSL-3, BSL-4) of positive pressure protective clothing.

This system is a mandatory shower purification and disinfection device arranged between the polluted area and the semi-polluted area. The chemicals is automatically proportioned, through the pressurized pump group, valve group and pipeline system, and the ultra-fine atomizing nozzle is used to spray the chemical agent on the positive pressure protective clothing in a wide range and without dead angle; effective heat-inactivation and removal of dangerous pathogenic microorganisms that may be contaminated on the surface of positive pressure protective clothing worn by staff, ensuring scientific research and medical personnel to safely exit the polluted environment, avoiding bringing pathogens into the surrounding environment, a device for comprehensive cleaning and disinfection.



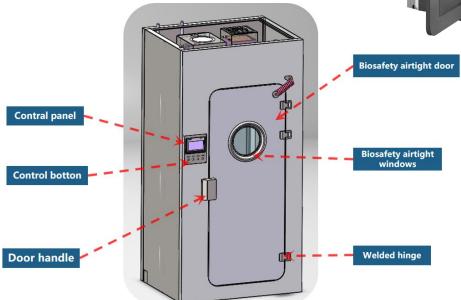
#### Standard Size & Performace Parameters

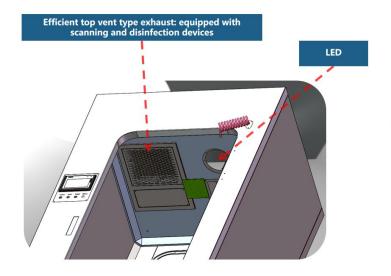
Items	Performace Parameters
Air tightness	When the air pressure in the box rises by 500 Pa, the air pressure that naturally decays within 20 minutes is less than 250 Pa
Pressure capacity	The box structure withstand a pressure of 1000 Pa
Material	Frame304 stainless steel, shower 316 stainless steel (pipeline, atomizing nozzle, etc.)
Function	Automatic liquid dispensing, automatic drug shower, automatic cleaning; and set up manual emergency spray
Shower pressure	0.5 ~ 0.7Mpa
Shower discharge	30 ~ 50L/min
Principle	High pressure atomization to make it more uniform without dead ends
Dosing	Automatically configure disinfectant, with mixing device, with liquid level monitoring and concentration monitoring device
Dispensing jar	Polyethylene (PE), strong corrosion resistance
Chemicals	Applicable to peroxide disinfectant, chlorine-containing disinfectant, acidic oxidation potential water and commonly used disinfectants in the market
Biosafety airtight doors	Airbag inflatable airtight door with interlocking device for added security
Control systerm	Intelligent automatic control, abnormal alarms such as liquid level and PH value, and remote monitoring functions, etc.
Pneumatic floor drain	Effectively ensure the air tightness of the chemical shower system
life support system	Standard configuration
Use population	Support 2 head count showing with positive pressure protective clothing at the same time

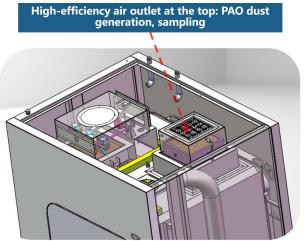
### Water Shower Cabin

Water shower cabin is a Biosafety protection system. The whole is welded by AISI304 stainless steel. The interior adopts laser continuous full welding technique. The entrance and exit use biosafety airtight doors. The internal negative pressure working environment effectively prevents the leakage of pollutants. The equipment adopts the design process of top-row and bottom-feeding to reduce internal fog and improve personnel comfort. The top air supply has a built-in filter device to ensure the cleanliness of the fresh air. The top exhaust filtration system has a built-in high-efficiency filter and is equipped with disinfection and scanning leak detection functions to effectively ensure that pollutants do not leak. The top adopts stainless steel shower head, and the water temperature is automatically controlled. Built-in LED lighting and stripper. This product is suitable for P3/P4 biological laboratory or high-demand pharmaceutical workshop disinfection and sterilization key areas









Please ask for other desired designs.

# Transfer Trolley / Clean Operation Bench

**Transfer trolley** is used for the storage and the transfer of products that are sensitive to contamination, between two class A areas, and through a class C area.

A laminar air flow class ISO 5 is maintaining a positive pressure within the transfer trolley avoiding any cross contamination. The transfer trolleys are equipped with a system of electrical plug / embarked battery, that maintain the laminar flow conditions in the transfer trolley at all times.



#### Standard Size & Performace Parameters

Model	External Dimension L×W×H	Internal Dimension W×D×H	Upstream Rated air velocity (m/s)	Working area clean class (grade)	Noise (dB)	Illumin ation (Lx)	Power (kW)
TT8-120	800×650×1800	720×600x750	0.45±20%	0% A 65			0.18
TT10-100	1000×650×1800	920×600x750			300	0.18	
TT15-120	1200×750×1800	1120×700x750			05	300	0.25
TT19-200	1400×850×1800	1320×800x750					0.36

Please ask for other desired designs.

The clean operation bench is used for sampling, dispensing and weighing of small / large quantities of toxic products. protecting the operator from any contamination, confining the sampling / weighing / dispensing operation.

The clean operation bench is autonomous and easily moveable. Available with PLC+ touch LCD screen or push button panel.



#### Standard Size & Performace Parameters

Model		External Dimension L×W×H	Internal Dimension W×D×H	clean class	Upstream Rated air velocity (m/s)	Noise (dB)	HEPA size L×W×D
CB10V-97.72	D	970×720×1600	810×700×500		(A) 0.45±20%	65	760×610×70×1
CB15V-145.72	2D	1450×720×1600	1290×700×500	100 (4)			610×610×70×2
CB10H-97.82	C.C	970×825×1500	810×650×600	100 (A)			760×610×70×1
CB15H-140.8	2C	1400×825×1500	1290×650×650				610×610×70×2

## **Dunk Tank**

Dunk tank, also known as Biosafety Dunk tank, is a stainless steel cabinet equipped with a disinfectant basin. Through disinfecting liquid (alcohols, hydrogen peroxide, ammonium sulfate compounds, proteinated iodines, phenylpropanoids, glutaraldehydes, sodium hypochlorite), it apply to sterilizing items that are not resistant to high temperature and high pressure or radiation sterilization, and then the sterilizing liquid is discharged through the drain valve.



#### Feature:

Application:	Biosafety Laboratory
Composition:	Immersion tank box, cover plate, clapboard, drain valve, internal transmission system, control system, signal output and alarm system, disinfection and liquid drain;
Material:	Inner groove 316L stainless steel, outer 304 stainless steel; high/low temperature resistance, corrosion resistance, waterproof, impact resistance
Structure:	The inner cavity is fully welded, with double airtight doors interlocking structure; with disinfectant emptying and safety overflow and water sealing devices
Airtightness:	Airtightness: Both sides are mechanically compressed airtight covers;
Configuration:	Equipped with electric closed valve, automatic water supply; water level display and alarm; equipped with standard fumigation and disinfection interface

**Modular Clean booth** is normally small-sized and customized according to customers' requirements, also known as clean shed. There can be classified into hard wall cleanroom and soft wall cleanroom. Customers can assembled our modular cleanroom by themselves as per our manual.

Like SMIF forms, SVW's design is convenient for disassembly and assembly, saving installation and transportation costs. Internal clean class can reach up to 100 -100,000 level. Clean booth can separate between people and equipment or products effectively, also can minimize human interference and pollution , thereby enhancing the rate of qualified products.



#### Standard size & Performace Parameters

Model	External Dimension W×D×H	FFU Nos	Air flow (m³/h)	Clean Level	Air Velocity
MCB-1500	1500×2000×2500	4pcs	4000		0.1~0.6m/s, average 0.45m/s
MCB-2000	2000×3000×2500	6pcs	5100	ISO 5 (Class 100)	
MCB-3000	3000×4000×2500	12pcs	7600	Class A	
MCB-5000	5000×5000×2500	25pcs	12000		

Frame	<ul><li>Aluminum profile</li><li>Cold-rolled steel with anti-bacteria powder coating</li><li>Stainless steel</li></ul>		
Wall	<ul><li>Anti-static dustproof curtain</li><li>Acrylic</li><li>PC</li></ul>		
Control system	<ul><li>Microprocessor control</li><li>PLC</li></ul>		





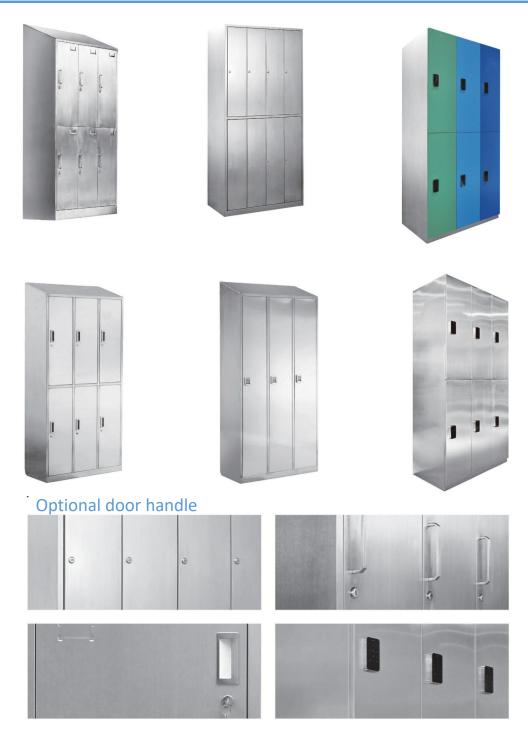


Please ask for other desired designs.

# CLEANROOM FURNITURE



# Stainless Steel Gowning Cabinet



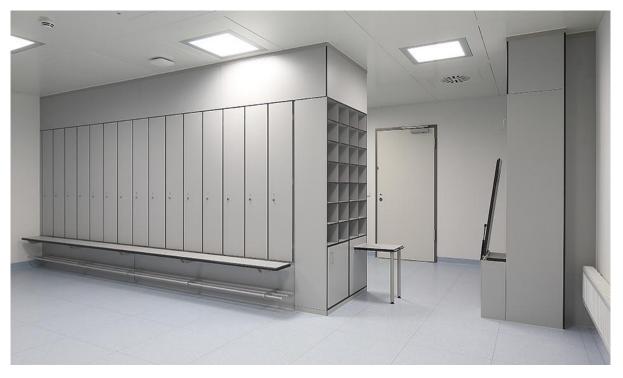
× Customized design



× Customized design

# **HPL Multifunctional Combination Cabinet**





× Customized design

# **HPL Multifunctional Combination Cabinet**





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# **HPL Multifunctional Combination Cabinet**







× Customized design



× Customized design



× Customized design

# Stainless Steel Work Bench/Cabinet



× Customized design



× Customized design



× Customized design



× Customized design







× Customized design







× Customized design

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