

# AK KOWA FILTER



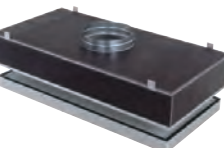

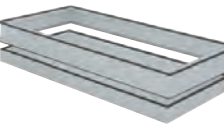


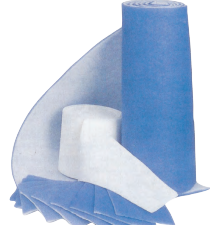

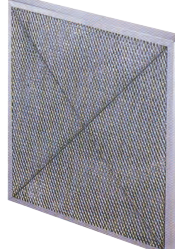


Assistance with planning and costing   
Please feel free to contact KOWA at any time for free

CLEAN ROOM & MINI ENVIRONMENT SYSTEM  
ULPA,HEPA FILTER  
MEDIUM,PRE FILTER  
CLEAN ROOM PARTITION SYSTEM  
CLEAN ROOM SUPPLY & EQUIPMENT  
CLEAN ROOM ENVIRONMENT TESTING



**Kowa**<sup>®</sup>  
KOWA AIR FILTER INDUSTRY LIMITED

Air filters and filtration systems for cleanroom

Disposable Air Filter Unit		<p>This type of filter is mainly used in Class 10,000 to 100,000 Clean Room. It is light-weight, low cost and matches all kinds of design for C/R.</p>	Mini Pleat High Efficiency Filter		<p>Mini Pleat type filter can be used in Class 1,000 to 1 C/R system. Can be combined with FFU or other A/C system. Mostly used in electrical product manufactures, hospital and bio-chemical industrials.</p>
Replaceable Air Filter Unit		<p>This type of filter is mainly used in Class 1,000 to 100,000 C/R which can replaces the traditional HEPA BOX type filter. It's easy to replace and more economical than Box Type, which makes it a desirable choice for construction engineers.</p>	Aluminum Separator Mid./High Efficiency Filter		<p>Alum. Separator is mainly used in C/R purposed A/C system. It has long lifetime with outstanding low pressure drop performance.</p>
Replaceable module for FFU		<p>Replaceable module can combine with FFU system one used in a positive-pressure C/R. It is suitable for Class 1,000 to Class 1. Easy in replacement makes it a very competitive product to choose.</p>	Heat-Resistant Air Filter		<p>This type of high/mid efficient filter can stand the heat up to 250°C and are mostly used in various kinds of machinery under heat processing.</p>
Active-Carbon Filter (Chemical Filter)		<p>It is a custom-made chemical filter which is mainly used against odor in air. Work well with : acid gas, alkaline gas and voc organic polluter</p>	Non-Woven Fabrics Filter		<p>Non-Woven filter is heavily used in construction A/C system . Its thickness ranges from 5mm to 25mm. It comes in rolls and can be cut into different sizes.</p>
Bag Filter 65% 85% 95%		<p>Bag filters can be custom-built in all sizes. It is mainly used in A/C Box.and are commonly seen in electrical manufactures and textile industries.</p>	Aluminum Filter/Stainless Filter		<p>Alum. Filter, Stainless Filter, Nylon Filter and Alum. Frame non-woven filter are all used in normal A/C systems. They can be re-used after rinsing or replacing the non-woven media pack.</p>
Coarse Filter 25% 35%		<p>Paper pre-filter is suitable for filter outside air in any normal A/C systems and Clean Room A/C systems.</p>	Low Pressure Drop Glass-Fiber-Media-Filter		<p>This filter comes with paper, metal or wooden frames. And provides thickness from 1", 2" and 4". It can be used in limited space and has excellent lifetime.</p>

## Air Filter Quick Selection Guide

Filter Grade	Efficiency	Filter Type	EN 779:2012		ASHRAE Std. 52.2-2007			ASHRAE Std. 52.1-1992			
			G1-G4	Am%=Average arrestance of synthetic dust	Composite Average Particle Size Removal Efficiency En% in Size Range			Average Arrestance	Average Dust Spot Efficiency		
			M5-F9	Em%=Average efficiency at 0.4µm minE%=Minimum efficiency at 0.4µm	MERV	Range Group 1 0.3-1.0µm	Range Group 2 1.0-3.0µm			Range Group 3 3.0-10.0µm	
Coarse Filters (G Class)	Gravimetric		G1	50%≤Am<65%	1	-	-	E <sub>3</sub> <20%	Aavg<65%	<20%	
			G2	65%≤Am<80%	2	-	-	E <sub>3</sub> <20%	65%≤Aavg<70%	<20%	
					3	-	-	E <sub>3</sub> <20%	70%≤Aavg<75%	<20%	
					4	-	-	E <sub>3</sub> <20%	75%≤Aavg	<20%	
	G3	80%≤Am<90%	5	-	-	20%≤E <sub>3</sub> <35%	80%	20%			
			6	-	-	35%≤E <sub>3</sub> <50%	85%	20%-25%			
			G4	90%≤Am	7	-	-	50%≤E <sub>3</sub> <70%	90%	25%-30%	
					8	-	-	70%≤E <sub>3</sub>	92%	30%-35%	
Medium Filter (M Class)	Colorimetric		M5	40%≤Em<60%	-	9	-	E <sub>2</sub> <50%	85%≤E <sub>3</sub>	95%	40%-45%
			M6	60%≤Em<80%	-	10	-	50%≤E <sub>2</sub> <65%	85%≤E <sub>3</sub>	96%	50%-55%
					11	-	65%≤E <sub>2</sub> <80%	85%≤E <sub>3</sub>	97%	60%-65%	
					12	-	80%≤E <sub>2</sub>	90%≤E <sub>3</sub>	98%	70%-75%	
Fine Filter (F Class)	Colorimetric		F7	80%≤Em<90%	35%≤minE	13	E <sub>1</sub> <75%	90%≤E <sub>2</sub>	90%≤E <sub>3</sub>	98%	80%-85%
			F8	90%≤Em<95%	55%≤minE	14	75%≤E <sub>1</sub> <85%	90%≤E <sub>2</sub>	90%≤E <sub>3</sub>	99%	90%-95%
			F9	95%≤Em	70%≤minE	15	85%≤E <sub>1</sub> <95%	90%≤E <sub>2</sub>	90%≤E <sub>3</sub>	99%	95%
EPA Filter	≥95% at 0.3µm		-	-	-	16	95%≤E <sub>1</sub>	95%≤E <sub>2</sub>	95%≤E <sub>3</sub>	100%	99%
Filter Grade	Efficiency	Filter Type	EN 1822:2009		IEST RP-CC001.5-2009			ISO 29463-1:2011			
			Class	Integral Efficiency	MERV	TYPE	Integral Efficiency	Integral Efficiency at MPPS			
			EPA Filter (E Class)	≥95% at 0.3µm		E10	≥85% at MPPS	ASHRAE Std. 52.2-2007 MERV 16 ≥95% at 0.3µm-10.0µm			-
≥99% at 0.3µm	E11	≥95% at MPPS		-		-	-	ISO 15 E	≥95%		
≥99.97% at 0.3µm	E12	≥99.5% at MPPS		17		A	≥99.97% at 0.3µm	ISO 20 E	≥99%		
	ISO 25 E	≥99.5%									
	ISO 30 E	≥99.9%									
≥99.99% at 0.3µm	H13	≥99.95% at MPPS		18		C	≥99.99% at 0.3µm	ISO 35 H	≥99.95%		
≥99.999% at 0.3µm	H14	≥99.995% at MPPS						19	D	≥99.999% at 0.3µm	ISO 40 H
ISO 45 H	≥99.995%										
ULPA Filter (U Class)	≥99.9995% at 0.1µm			U15		≥99.9995% at MPPS	20	F	≥99.9995% at 0.1µm-0.2µm or ≥99.9995% at 0.2µm-0.3µm	ISO 50 U	≥99.999%
	ISO 55 U			≥99.9995%							
	ISO 60 U		≥99.9999%								
≥99.99995% at 0.1µm	U16	≥99.99995% at MPPS	-	G Super ULPA	≥99.9999% at MPPS	ISO 65 U	≥99.99995%				
ISO 70 U	≥99.99999%										
ISO 75 U	≥99.999995%										

## Room Side Replaceable Module - Gel Seal Type for Fan Filter Unit



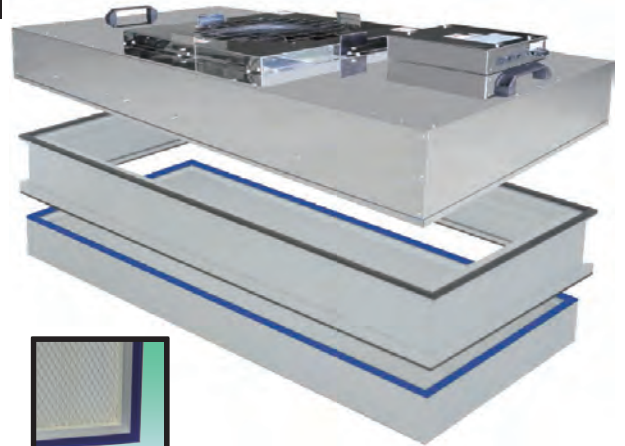
Particle Counting Method **99.99995%** at 0.1 μm  
(DOP/PSL/PAO) **99.9995%**

- Std. EN 1822:2009 Class U16 / U15
- Std. IEST RP-CC-001.5-2009 TYPE G / F



Particle Counting Method **99.999%** at 0.3 μm  
(DOP/PSL/PAO) **99.99%** at 0.3 μm  
**99.97%**

- Std. EN 1822:2009 Class H14 / H13 / E12
- Std. IEST RP-CC-001.5-2009 TYPE D / C / A



### OPERATING CONDITIONS

● Apply Temperature: 60°C

● Apply Humidity: 100%RH (No Dew)

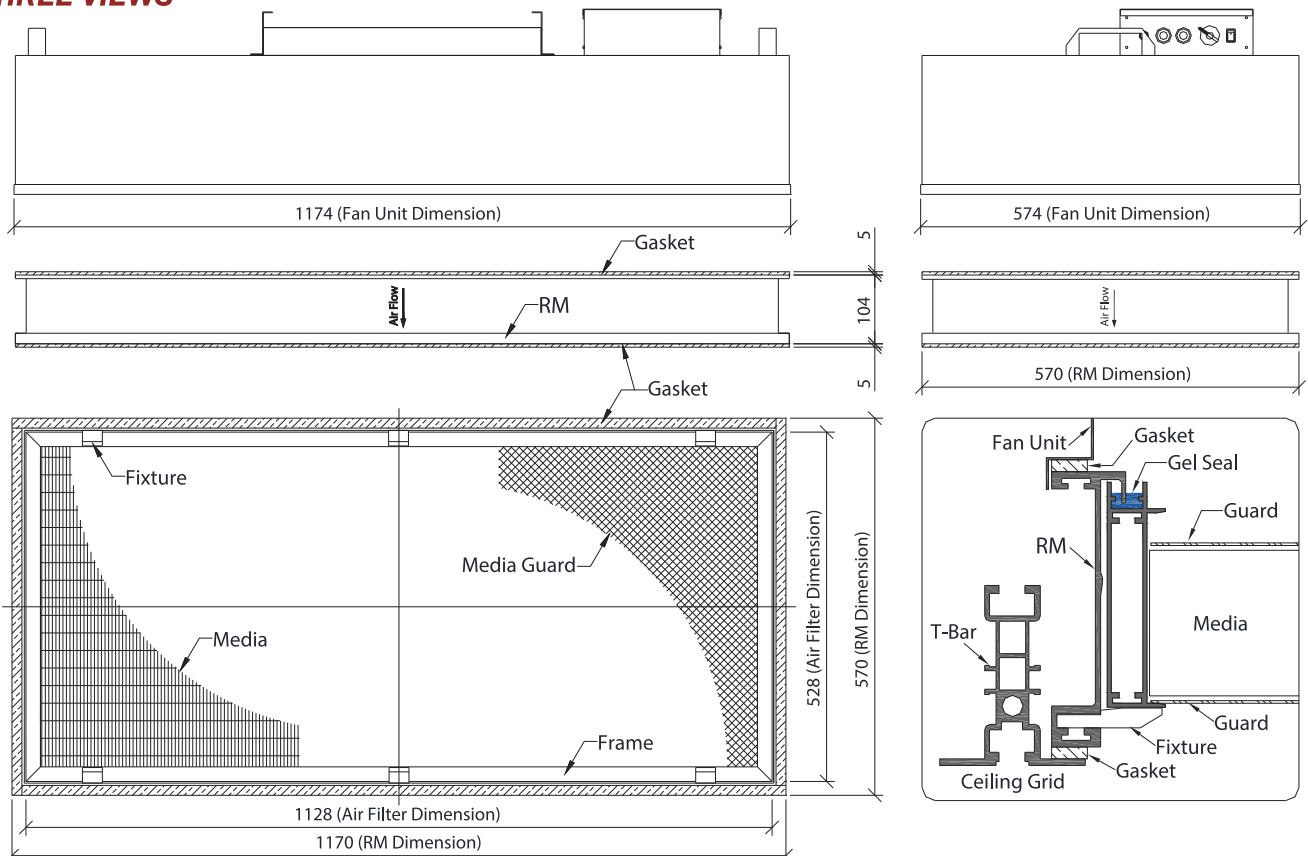
### SPECIFICATIONS

DIMENSION: LENGTH(L) × WIDTH(W) × DEPTH(D)

RM MODEL RM DIMENSION	FILTER GRADE	AIR FILTER MODEL AIR FILTER DIMENSION	INITIAL P.D.			
			SURFACE VELOCITY	0.35 m/sec	0.40 m/sec	0.45 m/sec
RM-B70570104-AR 1170×570×104 mm		U5RHB28528085AU4J 1128×528×85 mm	Std. Capacity	14mmH <sub>2</sub> O (136 Pa)	16mmH <sub>2</sub> O (155 Pa)	18mmH <sub>2</sub> O (174 Pa)
			High Capacity	12mmH <sub>2</sub> O (122 Pa)	14mmH <sub>2</sub> O (138 Pa)	16mmH <sub>2</sub> O (155 Pa)
		H4RHB28528085AU4J 1128×528×85 mm	Std. Capacity	10mmH <sub>2</sub> O (98 Pa)	11mmH <sub>2</sub> O (112 Pa)	13mmH <sub>2</sub> O (126 Pa)
			High Capacity	9mmH <sub>2</sub> O (88 Pa)	10mmH <sub>2</sub> O (100 Pa)	11mmH <sub>2</sub> O (112 Pa)

※Special dimension can be customized.

### THREE VIEWS





## Room Side Replaceable Filter Unit - Gel Seal Type



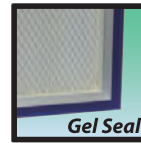
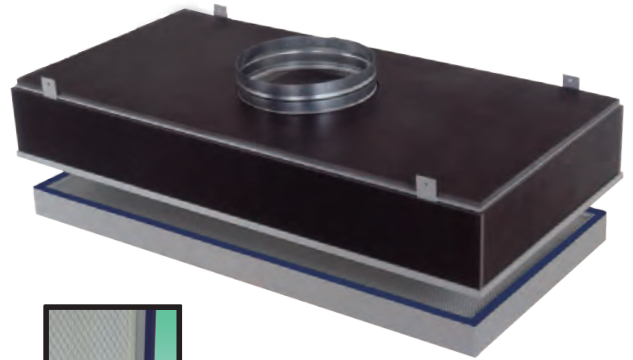
Particle Counting Method **99.99995%** at 0.1 μm  
(DOP/PSL/PAO) **99.9995%**

- Std. EN 1822:2009 Class U16 / U15
- Std. IEST RP-CC-001.5-2009 TYPE G / F



Particle Counting Method **99.999%**  
**99.99%** at 0.3 μm  
(DOP/PSL/PAO) **99.97%**

- Std. EN 1822:2009 Class H14 / H13 / E12
- Std. IEST RP-CC-001.5-2009 TYPE D / C / A



### OPERATING CONDITIONS

● Apply Temperature: 60°C

● Apply Humidity: 100%RH (No Dew)

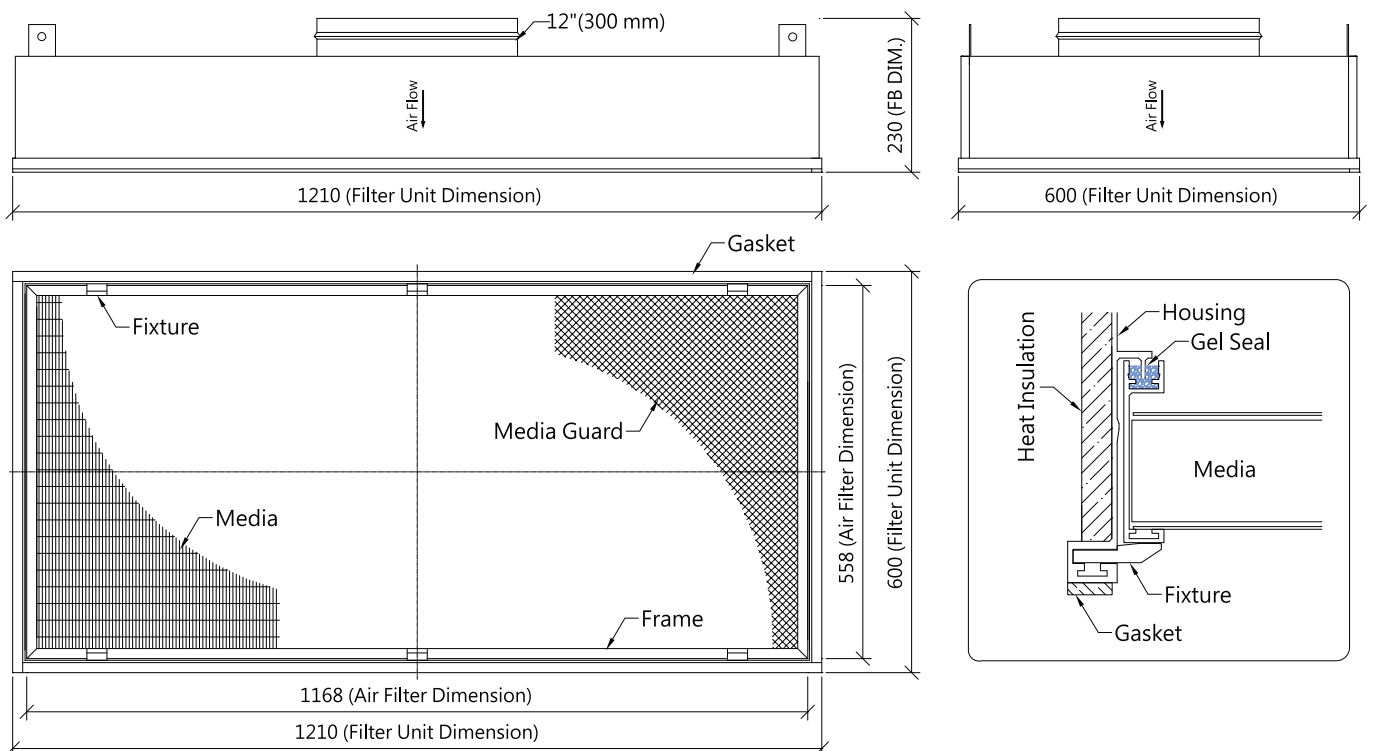
### SPECIFICATIONS

DIMENSION: LENGTH(L) × WIDTH(W) × DEPTH(D)

FILTER UNIT MODEL FILTER UNIT DIMENSION	FILTER GRADE	AIR FILTER MODEL AIR FILTER DIMENSION	CAPACITY	INITIAL P.D.	FINAL P.D.
FB-C10600230-ANR 1210×600×230 mm		U5RHB68558068AU4J 1168×558×68 mm	21.1 CMM (745 CFM)	17 mmH <sub>2</sub> O (167 Pa)	34 mmH <sub>2</sub> O (335 Pa)
		H4RHB68558068AU4J 1168×558×68 mm	36.1 CMM (1274 CFM)	25.4 mmH <sub>2</sub> O (249 Pa)	50 mmH <sub>2</sub> O (500 Pa)

※Special dimension can be customized.

### THREE VIEWS



## Room Side Replaceable Module - Gasket Type for Fan Filter Unit



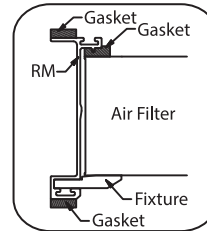
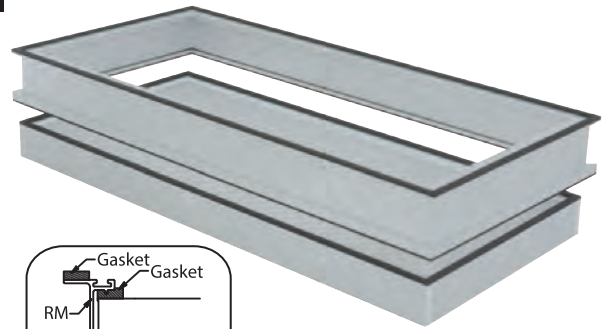
Particle Counting Method **99.99995%** at 0.1 μm  
(DOP/PSL/PAO) **99.9995%**

- Std. EN 1822:2009 Class U16 / U15
- Std. IEST RP-CC-001.5-2009 TYPE G / F



Particle Counting Method **99.999%** at 0.3 μm  
(DOP/PSL/PAO) **99.99%**  
**99.97%**

- Std. EN 1822:2009 Class H14 / H13 / E12
- Std. IEST RP-CC-001.5-2009 TYPE D / C / A



### OPERATING CONDITIONS

● Apply Temperature: 60°C

● Apply Humidity: 100%RH (No Dew)

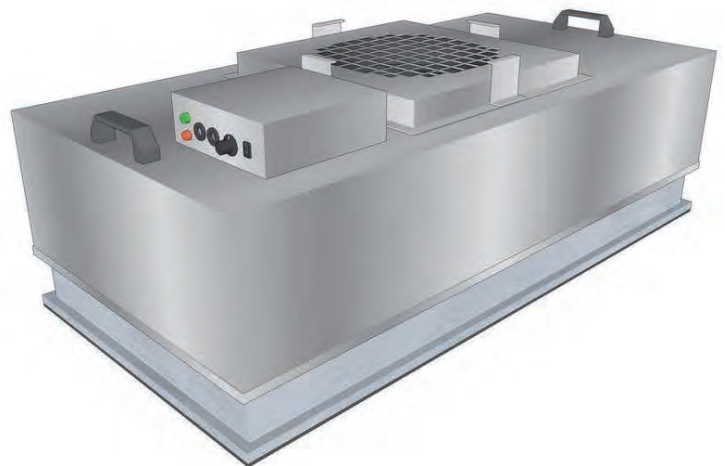
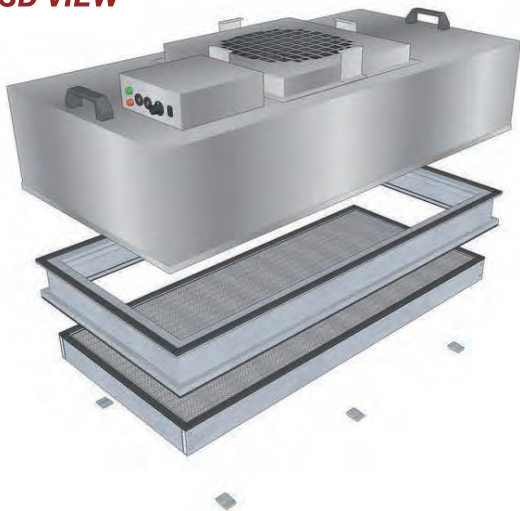
### SPECIFICATIONS

DIMENSION: LENGTH(L)×WIDTH(W)×DEPTH(D)

RM MODEL RM DIMENSION	FILTER GRADE	AIR FILTER MODEL AIR FILTER DIMENSION	INITIAL P.D.			
			SURFACE VELOCITY	0.35 m/sec	0.40 m/sec	0.45 m/sec
RM-B70570095-AR 1170×570×095 mm		U5RHB30530070AU4E 1130×530×70 mm	Std. Capacity	14mmH <sub>2</sub> O (136 Pa)	16mmH <sub>2</sub> O (155 Pa)	18mmH <sub>2</sub> O (174 Pa)
			High Capacity	12mmH <sub>2</sub> O (122 Pa)	14mmH <sub>2</sub> O (138 Pa)	16mmH <sub>2</sub> O (155 Pa)
		H4RHB30530070AU4E 1130×530×70 mm	Std. Capacity	10mmH <sub>2</sub> O (98 Pa)	11mmH <sub>2</sub> O (112 Pa)	13mmH <sub>2</sub> O (126 Pa)
			High Capacity	9mmH <sub>2</sub> O (88 Pa)	10mmH <sub>2</sub> O (100 Pa)	11mmH <sub>2</sub> O (112 Pa)

※Special dimension can be customized.

### 3D VIEW



## Room Side Replaceable Filter Unit

This type of filter is mainly used in Class 1,000 to 100,000 C/R which can replace the traditional HEPA BOX type filter. It's easy to replace and more economical than Box Type, which makes it a desirable choice for construction engineers.



## FILTER UNIT COMPARE TABLE

	Construction Cost	Maintenance Cost	Convenient of Replacement	Practicability
Room Side Replaceable Filter Unit	○	◎	◎	◎
Disposable Filter Unit	◎	×	×	△
Conservative Filter Unit	×	△	△	△

**Economical and Cost-Efficiency** : Easy replaceable filter unit can reduce the cost and it is more efficient.

**Easy and Convenient to Replace** : Clip-on filter fixture. Filter can be replaced from room side. Quick installation and convenient to replacement.

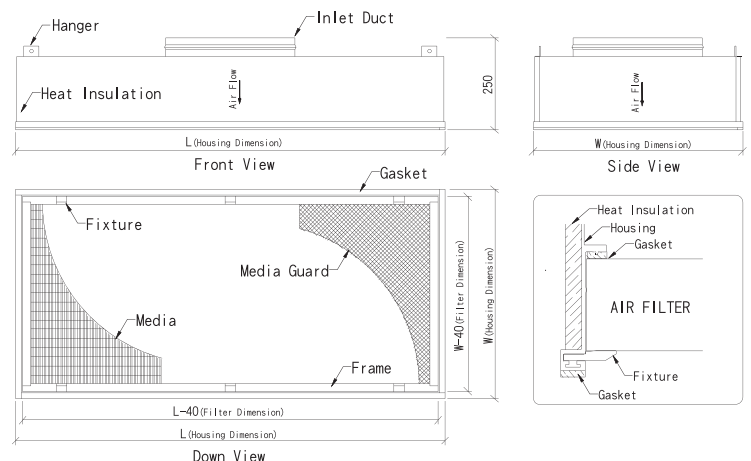
**Widely Multi-Functional Design** : Fit for all kinds of ceiling grid, heavy duty T-bar, light duty T-bar, and ceiling panel.

**Sturdy and Lightweight Housing** : Made by anodized aluminum, light in weight Easy to handle and install.

**Friendly and custom-built** : There are various of inlet ducts and stainless outlet panel to choose, which satisfied all needs.

**Professional and Quality Filter** : Collect specifically with "KOWA" replaceable air filter. Quality is guaranteed.

## FILTER THREE VIEW





# KOWA

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

## Room Side Replaceable ULPA Filter Unit

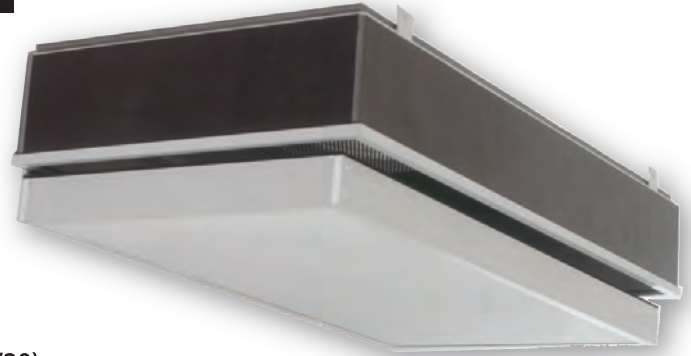
Particle Counting Method **99.99995%** at 0.1  $\mu\text{m}$   
(DOP/PSL/PAO) **99.9995%**

### OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)

### QUALIFIED WITH

- Std. EN 1822:2009 Class U16 / U15
- Std. IEST RP-CC-001.5:2009 TYPE G (Super ULPA) / F (MERV20)



### WITH STANDARD CAPACITY ULPA FILTER:

FILTER UNIT MODEL	DIMENSION ※Without Inlet Duct	FILTER MODEL	DIMENSION ※Without Gasket	UPLA	Standard
	LENGTH×WIDTH×DEPTH		LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.
FB-C10600250	1210×600×180 mm	U5RHB70560070	1170×560×70 mm	20.2 CMM	17 mmH <sub>2</sub> O (167 Pa)
FB-B70570250	1170×570×180 mm	U5RHB30530070	1130×530×70 mm	18.3 CMM	
FB-905600250	905×600×180 mm	U5RH865560070	865×560×70 mm	14.8 CMM	
FB-870570250	870×570×180 mm	U5RH830530070	830×530×70 mm	13.3 CMM	
FB-600600250	600×600×180 mm	U5RH560560070	560×560×70 mm	9.4 CMM	
FB-570570250	570×570×180 mm	U5RH530530070	530×530×70 mm	8.3 CMM	

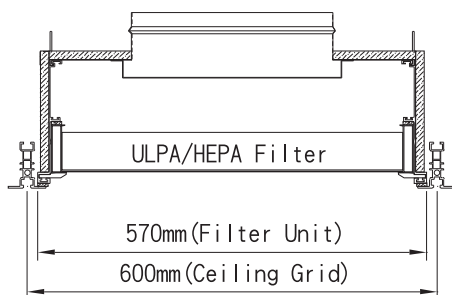
### WITH HIGH CAPACITY ULPA FILTER:

FILTER UNIT MODEL	DIMENSION ※Without Inlet Duct	FILTER MODEL	DIMENSION ※Without Gasket	UPLA	HIGH
	LENGTH×WIDTH×DEPTH		LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.
FB-C10600250	1210×600×180 mm	U5RHB70560070	1170×560×70 mm	34.3 CMM	25.4 mmH <sub>2</sub> O (249 Pa)
FB-B70570250	1170×570×180 mm	U5RHB30530070	1130×530×70 mm	31.2 CMM	
FB-905600250	905×600×180 mm	U5RH865560070	865×560×70 mm	25.1 CMM	
FB-870570250	870×570×180 mm	U5RH830530070	830×530×70 mm	22.7 CMM	
FB-600600250	600×600×180 mm	U5RH560560070	560×560×70 mm	15.9 CMM	
FB-570570250	570×570×180 mm	U5RH530530070	530×530×70 mm	14.2 CMM	

※Standard diameter of inlet duct are 14"Φ(350mm), 12"Φ(300mm) and 10"Φ(250mm).

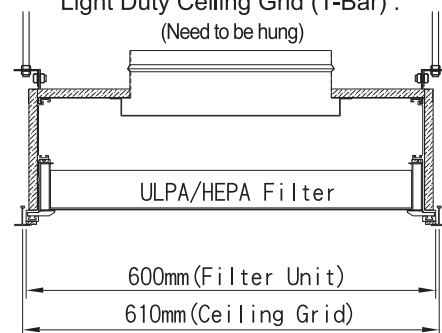
### STRUCTURAL DRAWING

Heavy Duty Ceiling Grid (T-Bar):



If heavy duty T-bar dimension is 1200×600mm, the filter unit dimension would be 1170×570mm.

Light Duty Ceiling Grid (T-Bar) :  
(Need to be hung)



If Light duty T-bar dimension is 1220×610mm, the filter unit dimension would be 1210×600mm.



# KOWA

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

## Room Side Replaceable HEPA Filter Unit

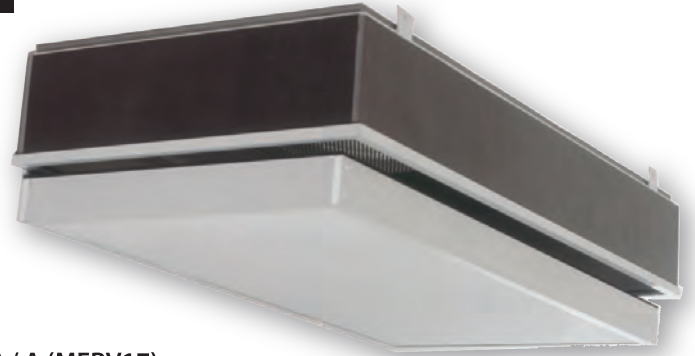
99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

### OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)

### QUALIFIED WITH

- Std. EN 1822:2009 Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009 TYPE D (MERV19) / C (MERV18) / A (MERV17)



### WITH STANDARD CAPACITY HEPA FILTER:

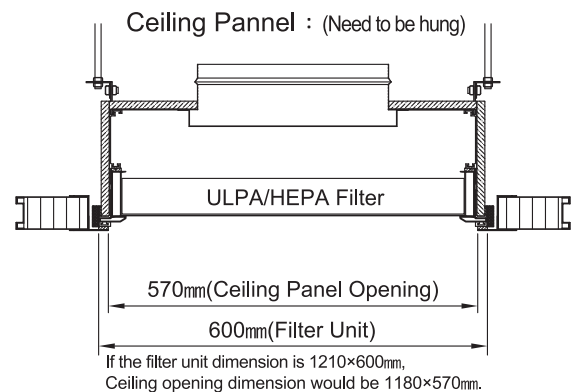
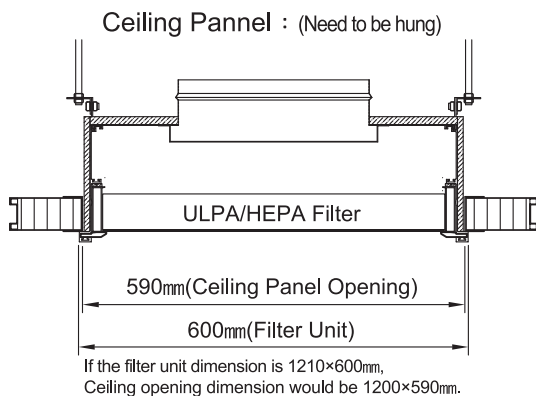
FILTER UNIT MODEL	DIMENSION ※Without Inlet Duct	FILTER MODEL	DIMENSION ※Without Gasket	HEPA	Standard
	LENGTH×WIDTH×DEPTH		LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.
FB-C10600250	1210×600×180 mm	H4RHB70560070	1170×560×70 mm	34.3 CMM	25.4 mmH <sub>2</sub> O (249 Pa)
FB-B70570250	1170×570×180 mm	H4RHB30530070	1130×530×70 mm	31.2 CMM	
FB-905600250	905×600×180 mm	H4RH865560070	865×560×70 mm	25.1 CMM	
FB-870570250	870×570×180 mm	H4RH830530070	830×530×70 mm	22.7 CMM	
FB-600600250	600×600×180 mm	H4RH560560070	560×560×70 mm	15.9 CMM	
FB-570570250	570×570×180 mm	H4RH530530070	530×530×70 mm	14.2 CMM	

### WITH HIGH CAPACITY HEPA FILTER:

FILTER UNIT MODEL	DIMENSION ※Without Inlet Duct	FILTER MODEL	DIMENSION ※Without Gasket	HEPA	HIGH
	LENGTH×WIDTH×DEPTH		LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.
FB-C10600250	1210×600×180 mm	H4RHB70560070	1170×560×70 mm	50.4 CMM	25.4 mmH <sub>2</sub> O (249 Pa)
FB-B70570250	1170×570×180 mm	H4RHB30530070	1130×530×70 mm	45.9 CMM	
FB-905600250	905×600×180 mm	H4RH865560070	865×560×70 mm	36.9 CMM	
FB-870570250	870×570×180 mm	H4RH830530070	830×530×70 mm	33.4 CMM	
FB-600600250	600×600×180 mm	H4RH560560070	560×560×70 mm	23.4 CMM	
FB-570570250	570×570×180 mm	H4RH530530070	530×530×70 mm	20.9 CMM	

※Standard diameter of inlet duct are 14"Φ(350mm), 12"Φ(300mm) and 10"Φ(250mm).

### STRUCTURAL DRAWING



# Disposable Standard Capacity ULPA Filter Unit

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

ULPA

DISPOSABLE

STD. CAPACITY

Particle Counting Method  $99.99995\%$  at  $0.1 \mu\text{m}$   
(DOP/PSL/PAO)  $99.9995\%$

## OPERATING CONDITIONS

- Apply Temperature:  $60^{\circ}\text{C}$
- Apply Humidity: 100%RH (No Dew)

## QUALIFIED WITH

- Std. EN 1822:2009  
Class U16 / U15
- Std. IEST RP-CC-001.5:2009  
TYPE G (Super ULPA) / F (MERV20)



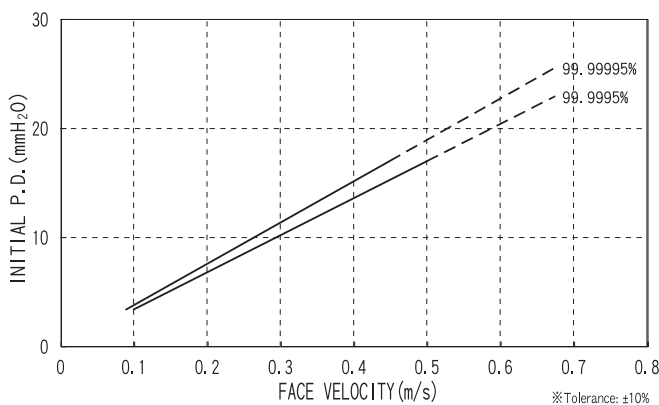
## SPECIFICATIONS

MODEL	DIMENSION <sup>*Without Inlet Duct</sup> LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.	FINAL P.D.
U5DHC20610220	1220×610×150 mm (Ceiling Panel)	20.7CMM (731 CFM)	17.0 mmH <sub>2</sub> O (167 Pa)  *Face Velocity : 0.5 m/s	34.0 mmH <sub>2</sub> O (335 Pa)  *Recommend
U5DHC10600220	1210×600×150 mm (Light Duty T-Bar)	20.2CMM (713 CFM)		
U5DHB70570220	1170×570×150 mm (Heavy Duty T-Bar)	18.5CMM (653 CFM)		
U5DH610610220	610×610×150 mm (Ceiling Panel)	10.1CMM (357 CFM)		
U5DH600600220	600×600×150 mm (Light Duty T-Bar)	9.7CMM (343 CFM)		
U5DH570570220	570×570×150 mm (Heavy Duty T-Bar)	8.7CMM (307 CFM)		

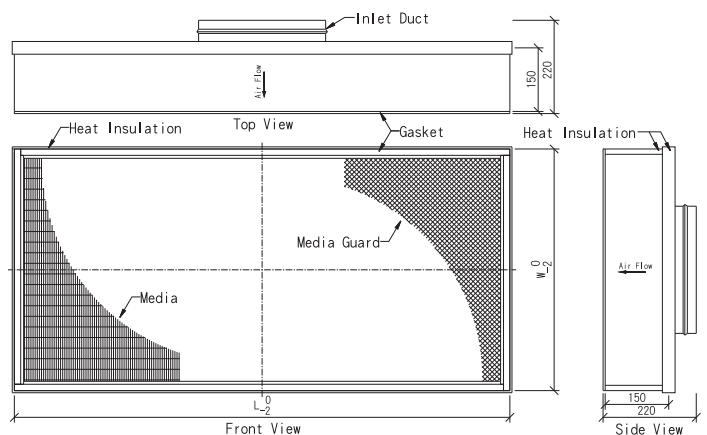
※Standard diameter of inlet duct are 14"Φ(350mm), 12"Φ(300mm) and 10"Φ(250mm).

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Disposable Standard Capacity HEPA Filter Unit

HEPA

DISPOSABLE

STD. CAPACITY

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)



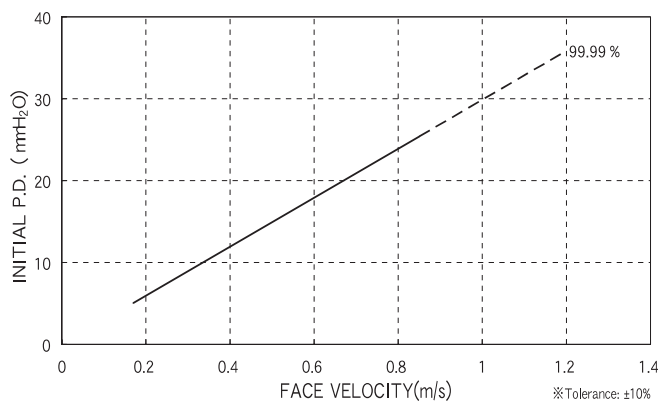
## SPECIFICATIONS

MODEL	DIMENSION <sup>*Without Inlet Duct</sup> LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.	FINAL P.D.
H4DHC20610220	1220×610×150 mm (Ceiling Panel)	35.2 CMM (1243 CFM)	25.4 mmH <sub>2</sub> O ( 249 Pa )	50.8 mmH <sub>2</sub> O ( 500 Pa )
H4DHC10600220	1210×600×150 mm (Light Duty T-Bar)	34.3 CMM (1211 CFM)		
H4DHB70570220	1170×570×150 mm (Heavy Duty T-Bar)	31.4 CMM (1109 CFM)		
H4DH610610220	610×610×150 mm (Ceiling Panel)	17.2 CMM (607 CFM)		
H4DH600600220	600×600×150 mm (Light Duty T-Bar)	16.6 CMM (586 CFM)		
H4DH570570220	570×570×150 mm (Heavy Duty T-Bar)	14.9 CMM (526 CFM)		
			*Face Velocity : 0.85 m/s	*Recommend

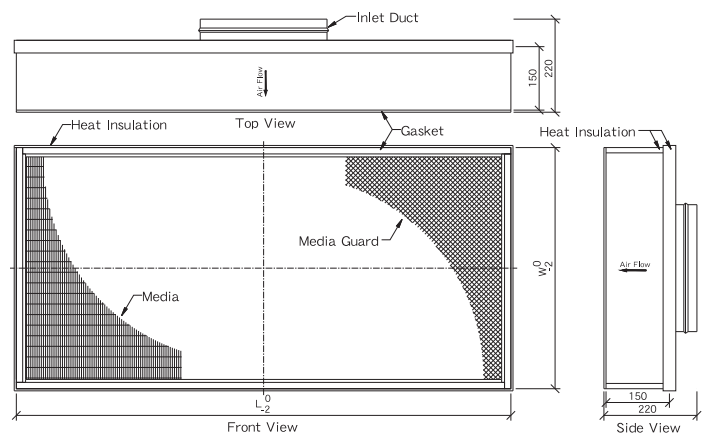
※Standard diameter of inlet duct are 14"Φ(350mm), 12"Φ(300mm) and 10"Φ(250mm).

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Disposable Standard Capacity EPA Filter Unit

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

EPA

DISPOSABLE

STD. CAPACITY

Particle Counting Method 95% at 0.3 $\mu$ m  
(DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)

## QUALIFIED WITH

- Std. EN 1822:2009 Class E10
- Std. ASHRAE 52.2-2007 MERV 16



## SPECIFICATIONS

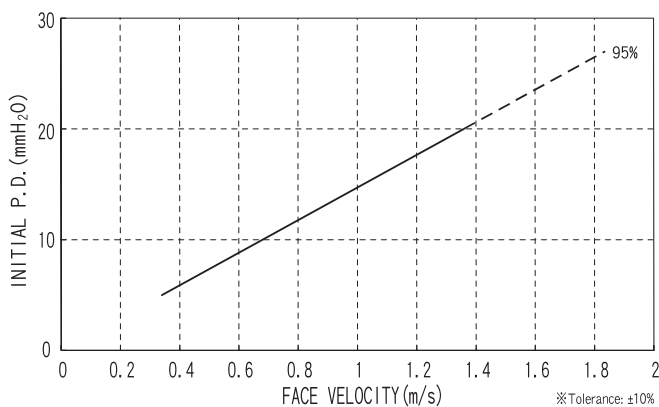
MODEL	DIMENSION <sup>*Without Inlet Duct</sup> LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.	FINAL P.D.
S1DHC20610220	1220×610×150 mm (Ceiling Panel)	35.2 CMM (1243 CFM)	12.5 mmH <sub>2</sub> O ( 122 Pa )	25.0mmH <sub>2</sub> O ( 250 Pa )
S1DHC10600220	1210×600×150 mm (Light Duty T-Bar)	34.3 CMM (1211 CFM)		
S1DHB70570220	1170×570×150 mm (Heavy Duty T-Bar)	31.4 CMM (1109 CFM)		
S1DH610610220	610×610×150 mm (Ceiling Panel)	17.2 CMM (607 CFM)		
S1DH600600220	600×600×150 mm (Light Duty T-Bar)	16.6 CMM (586 CFM)		
S1DH570570220	570×570×150 mm (Heavy Duty T-Bar)	14.9 CMM (526 CFM)		

\*Face Velocity : 0.85 m/s  
\*Recommend

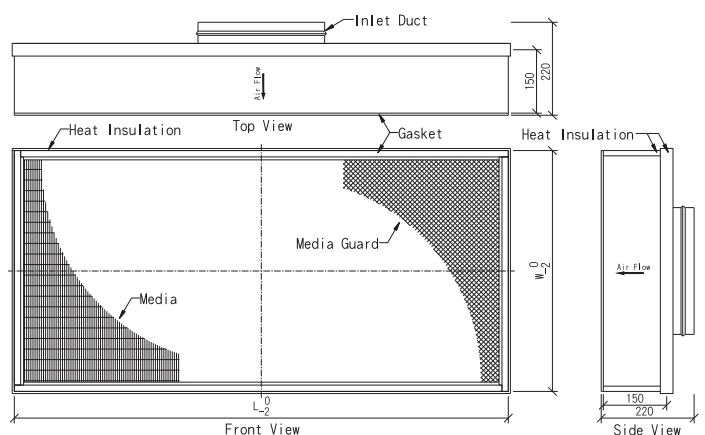
※Standard diameter of inlet duct are 14"Φ(350mm), 12"Φ(300mm) and 10"Φ(250mm).

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# Mini Pleat Standard Capacity ULPA Filter

ULPA

MINI PLEAT

STD. CAPACITY

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

Particle Counting Method **99.99995%** at **0.1 μm**  
(DOP/PSL/PAO) **99.9995%**

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Ultra thin mini pleat air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class U16 / U15
- Std. IEST RP-CC-001.5:2009  
TYPE G (Super ULPA) / F (MERV20)



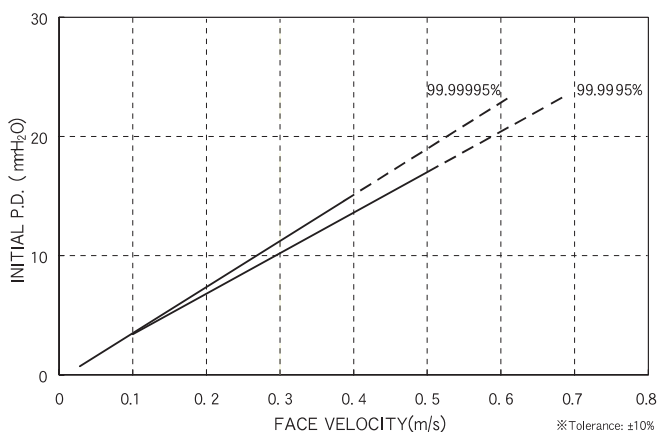
## SPECIFICATIONS

MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
U5MH305610070	305×610×70 mm	4.8 CMM (169 CFM)	17.0 mmH <sub>2</sub> O (167 Pa)  *Face Velocity : 0.5 m/s	34.0 mmH <sub>2</sub> O (335 Pa)  *Recommend
U5MH610610070	610×610×70 mm	10.1 CMM (357 CFM)		
U5MH760610070	760×610×70 mm	12.7 CMM (448 CFM)		
U5MH915610070	915×610×70 mm	15.4 CMM (544 CFM)		
U5MHC20610070	1220×610×70 mm	20.7 CMM (731 CFM)		
U5MH570570070	570×570×70 mm	7.6 CMM (267 CFM)	12.0 mmH <sub>2</sub> O (117 Pa)  *Face Velocity : 0.35 m/s	24.0 mmH <sub>2</sub> O (235 Pa)  *According to FU Performance
U5MHB70570070	1170×570×70 mm	15.1 CMM (534 CFM)		

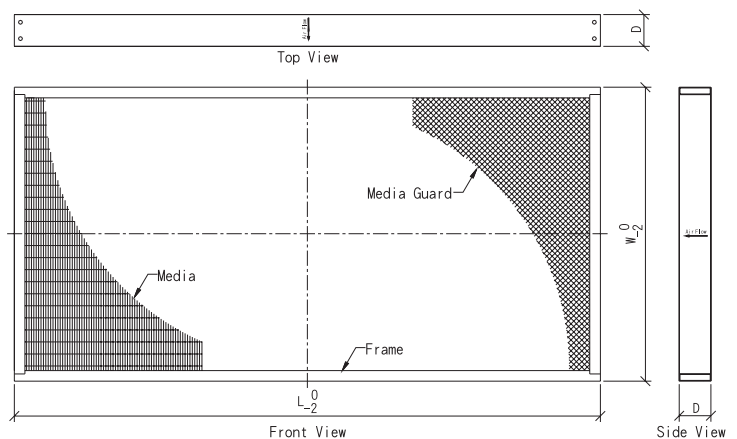
※ Standard depth is 70mm, and there is also available 50mm could be selected.

※ Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Mini Pleat High Capacity ULPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

ULPA

MINI PLEAT

HIGH CAPACITY

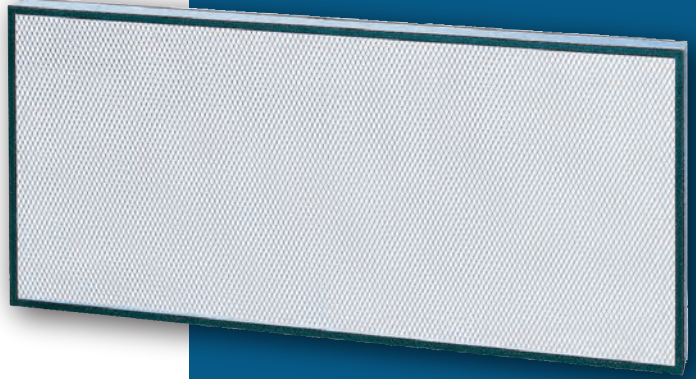
Particle Counting Method  $99.99995\%$  at  $0.1 \mu\text{m}$   
(DOP/PSL/PAO)  $99.9995\%$

## OPERATING CONDITIONS

- Apply Temperature:  $60^{\circ}\text{C}$
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop mini pleat air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class U16 / U15
- Std. IEST RP-CC-001.5:2009  
TYPE G (Super ULPA) / F (MERV20)

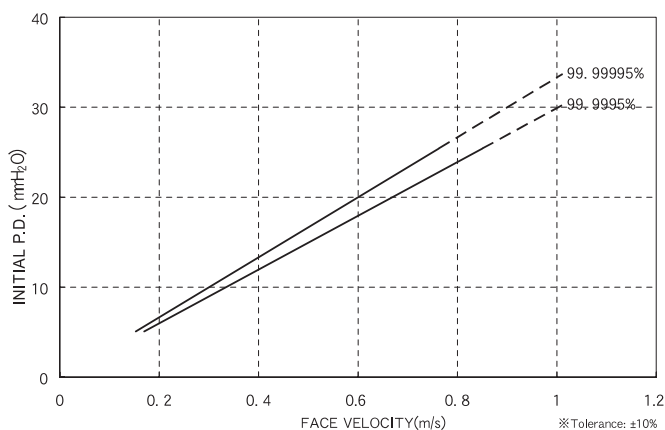


## SPECIFICATIONS

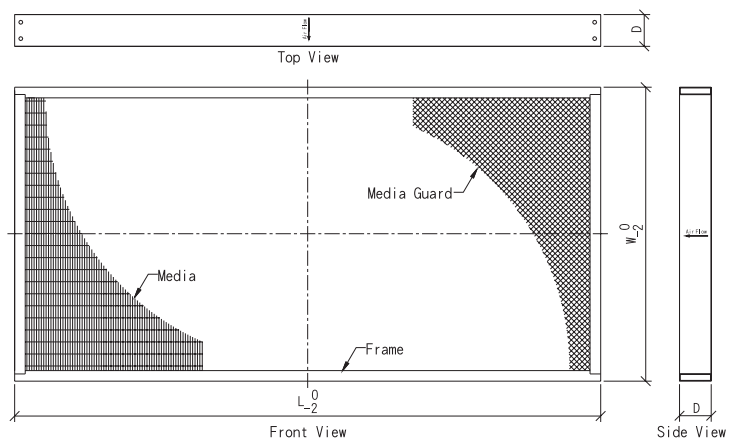
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
U5MH305610070	305×610×70 mm	8.1 CMM (286 CFM)	25.4 mmH <sub>2</sub> O (249 Pa)  *Face Velocity : 0.85 m/s	50.8 mmH <sub>2</sub> O (500 Pa)  *Recommend
U5MH610610070	610×610×70 mm	17.2 CMM (607 CFM)		
U5MH760610070	760×610×70 mm	21.6 CMM (763 CFM)		
U5MH915610070	915×610×70 mm	26.2 CMM (925 CFM)		
U5MHC20610070	1220×610×70 mm	35.2 CMM (1243 CFM)		
U5MH570570070	570×570×70 mm	7.6 CMM (267 CFM)	10.0 mmH <sub>2</sub> O (98 Pa)  *Face Velocity : 0.35 m/s	20.0 mmH <sub>2</sub> O (200 Pa)  *According to FU Performance
U5MHB70570070	1170×570×70 mm	15.1 CMM (534 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Mini Pleat Standard Capacity HEPA Filter

HEPA

MINI PLEAT

STD. CAPACITY

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

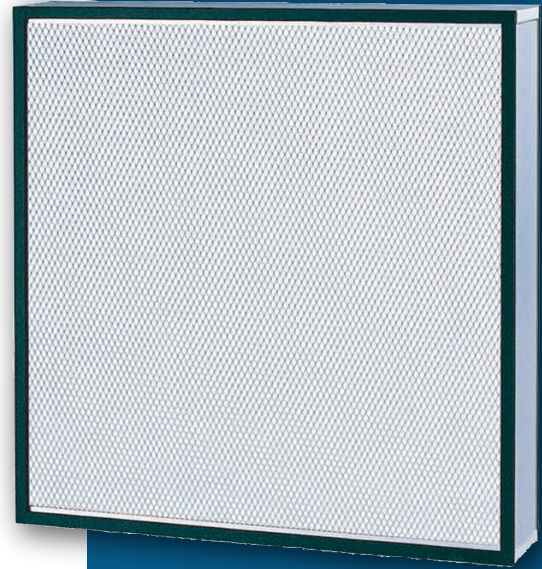
99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Ultra thin mini pleat air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)



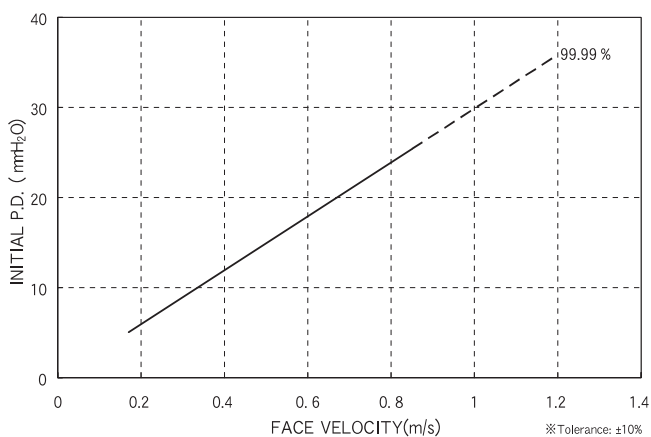
## SPECIFICATIONS

MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
H4MH305610070	305×610×70 mm	8.1 CMM (287 CFM)	25.4 mmH <sub>2</sub> O (249 Pa)  *Face Velocity : 0.85 m/s	50.8 mmH <sub>2</sub> O (500 Pa)  *Recommend
H4MH610610070	610×610×70 mm	17.2 CMM (600 CFM)		
H4MH760610070	760×610×70 mm	21.6 CMM (756 CFM)		
H4MH915610070	915×610×70 mm	26.2 CMM (915 CFM)		
H4MHC20610070	1220×610×70 mm	35.2 CMM (1232 CFM)		
H4MH570570070	570×570×70 mm	7.6 CMM (267 CFM)	10 mmH <sub>2</sub> O (98 Pa)	20 mmH <sub>2</sub> O (200 Pa)
H4MHB70570070	1170×570×70 mm	15.0 CMM (534 CFM)	*Face Velocity : 0.35 m/s	*According to FU Performance

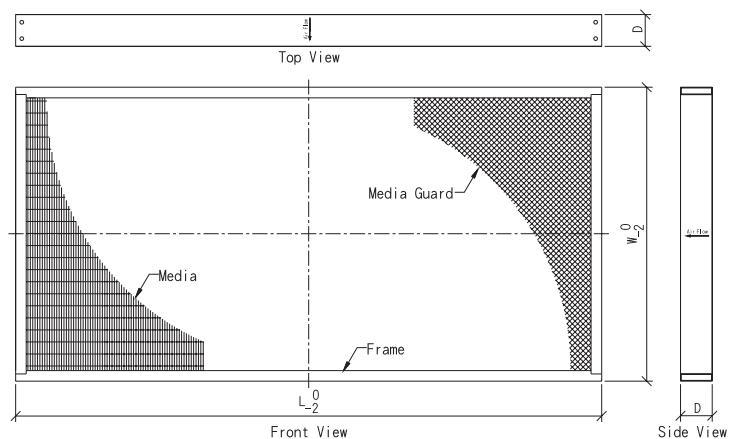
※ Standard depth is 70mm, and there is also available 50mm could be selected.

※ Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# Mini Pleat High Capacity HEPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

HEPA

MINI PLEAT

HIGH CAPACITY

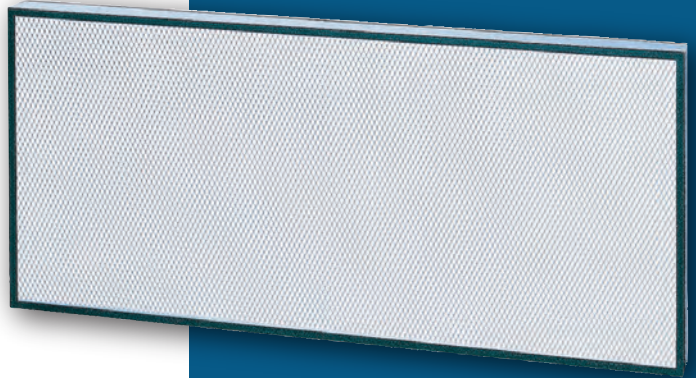
99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop mini pleat air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)

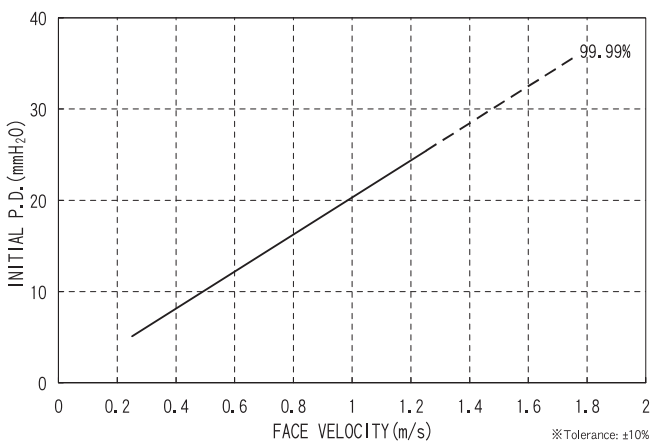


## SPECIFICATIONS

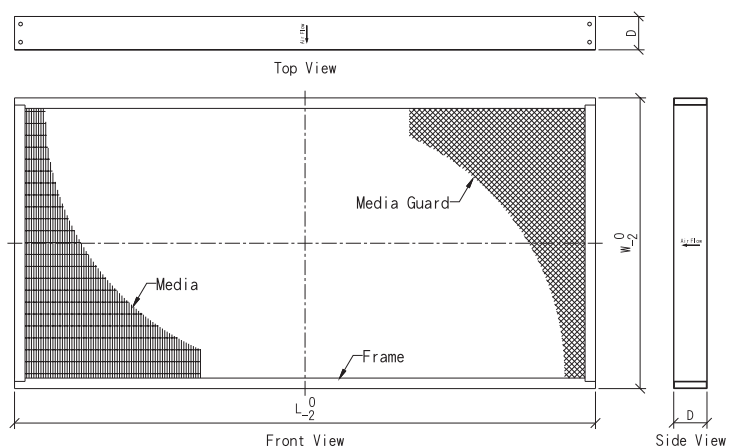
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
H4MH305610070	305×610×70 mm	11.5 CMM (424 CFM)	25.4 mmH <sub>2</sub> O (249 Pa)  *Face Velocity : 1.25 m/s	50.8 mmH <sub>2</sub> O (500 Pa)  *Recommend
H4MH610610070	610×610×70 mm	24.2 CMM (890 CFM)		
H4MH760610070	760×610×70 mm	30.5 CMM (1123 CFM)		
H4MH915610070	915×610×70 mm	37.0 CMM (1359 CFM)		
H4MHC20610070	1220×610×70 mm	51.8 CMM (1829 CFM)		
H4MH570570070	570×570×70 mm	7.6 CMM (267 CFM)	8 mmH <sub>2</sub> O (78 Pa)  *Face Velocity : 0.35 m/s	16 mmH <sub>2</sub> O (160 Pa)  *According to FU Performance
H4MHB70570070	1170×570×70 mm	15.1 CMM (534 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# V-Bank Standard Capacity HEPA Filter

HEPA

V-BANK

STD. CAPACITY

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop V-Bank air filter
- More efficiency and longer use life time
- Lower energy consumption

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)

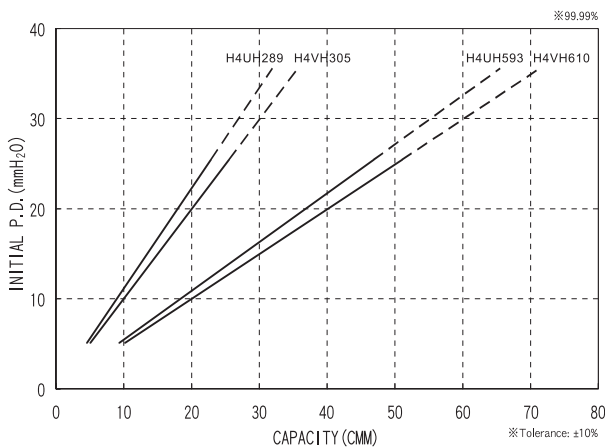


## SPECIFICATIONS

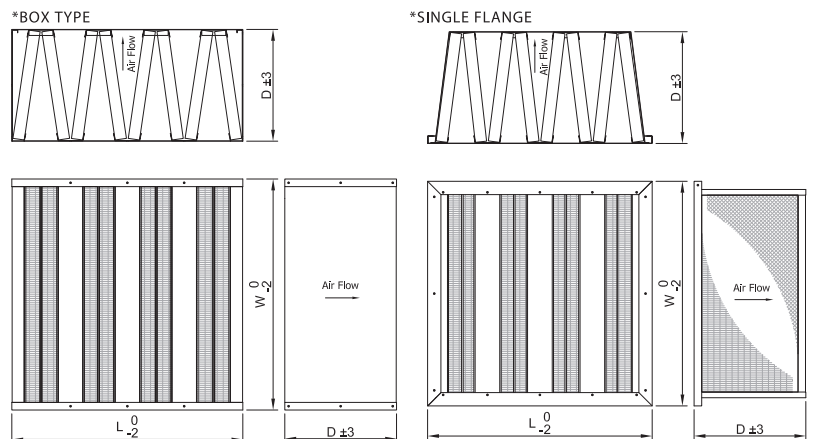
MODEL		DIMENSION LENGTH×WIDTH×DEPTH	*Without Gasket	CAPACITY	INITIAL P.D.	FINAL P.D.
BOX TYPE	H4VH305610293	305×610×293 mm		25.5 CMM (900 CFM)	25.4 mmH <sub>2</sub> O (249 Pa)	50.8 mmH <sub>2</sub> O (500 Pa)
	H4VH610610293	610×610×293 mm		51.0 CMM (1800 CFM)		
SINGLE FLANGE	H4UH289593293	289×593×293 mm		25.5 CMM (900 CFM)	27.0 mmH <sub>2</sub> O (265 Pa)	
	H4UH593593293	593×593×293 mm		51.0 CMM (1800 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# V-Bank High Capacity HEPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

HEPA

V-BANK

HIGH CAPACITY

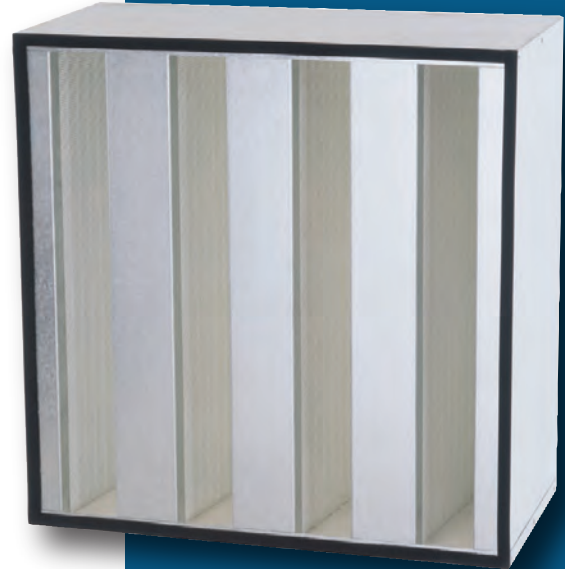
99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Ultra low pressure drop V-Bank air filter
- More efficiency and longer use life time
- Lower energy consumption

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)

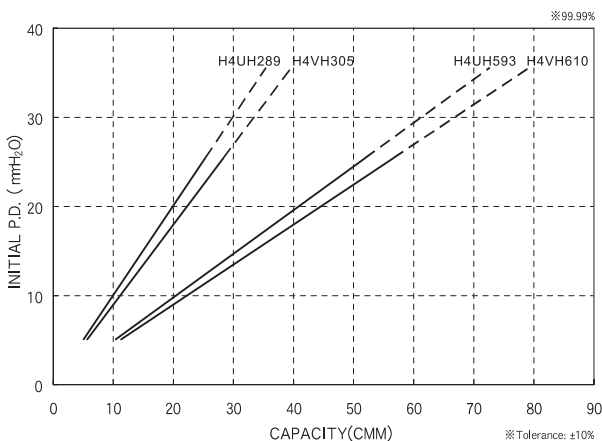


## SPECIFICATIONS

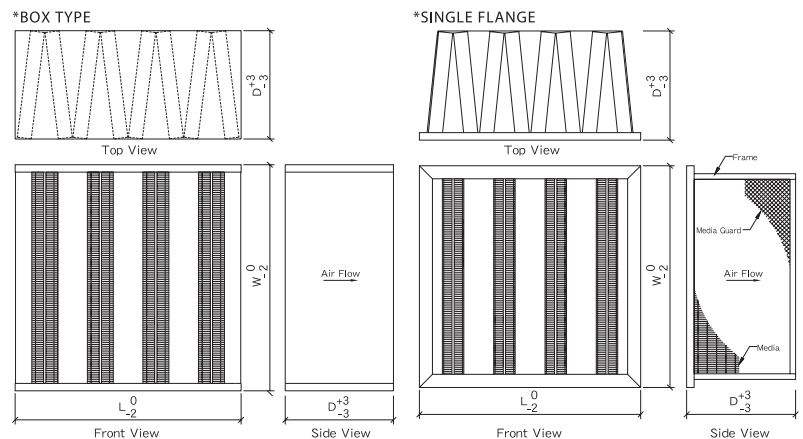
MODEL		DIMENSION LENGTH×WIDTH×DEPTH	*Without Gasket	CAPACITY	INITIAL P.D.	FINAL P.D.
BOX TYPE	H4VH305610293	305×610×293 mm		28.3 CMM (1000 CFM)	25.4 mmH <sub>2</sub> O (249 Pa)	50.8 mmH <sub>2</sub> O (500 Pa)
	H4VH610610293	610×610×293 mm		56.6 CMM (2000 CFM)		
SINGLE FLANGE	H4UH289593293	289×593×293 mm		28.3 CMM (1000 CFM)	27.0 mmH <sub>2</sub> O (265 Pa)	
	H4UH593593293	593×593×293 mm		56.6 CMM (2000 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Separator Standard Capacity HEPA Filter

HEPA

SEPARATOR

STD. CAPACITY

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

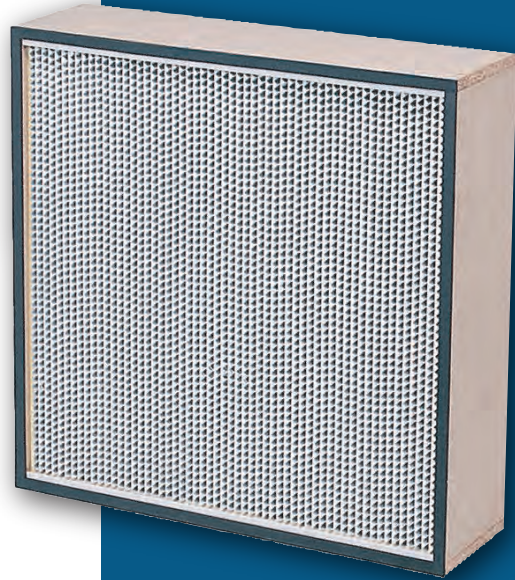
99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Deep Pleated Alu. Separator air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)

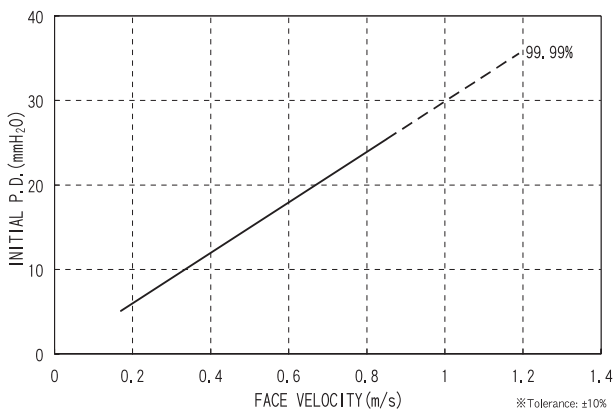


## SPECIFICATIONS

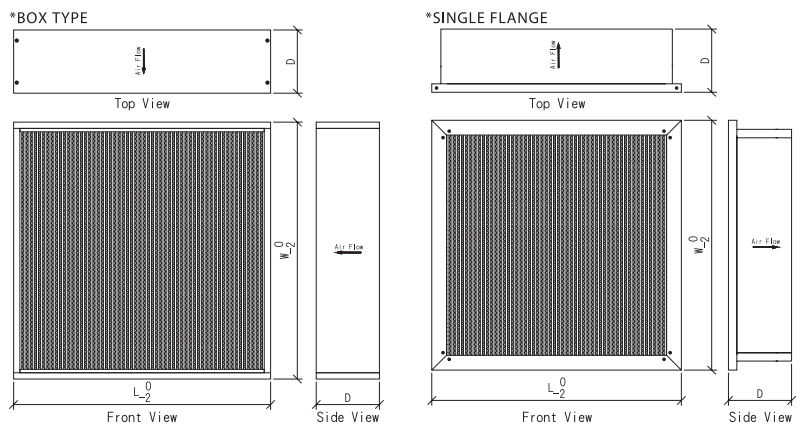
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
H4BA305305150	305×305×150 mm	3.9 CMM (138 CFM)	25.4 mmH <sub>2</sub> O ( 249 Pa )  *Face Velocity : 0.85 m/s	50.8 mmH <sub>2</sub> O ( 500 Pa )  *Recommend
H4BA305610150	305×610×150 mm	8.1 CMM (286 CFM)		
H4BA610610150	610×610×150 mm	17.2 CMM (607 CFM)		
H4BA760610150	760×610×150 mm	21.6 CMM (763 CFM)		
H4BA915610150	915×610×150 mm	26.2 CMM (925 CFM)		
H4BAC20610150	1220×610×150 mm	35.2 CMM (1243 CFM)		
H4BAF25610150	1525×610×150 mm	44.2 CMM (1561 CFM)		
H4BAI30610150	1830×610×150 mm	53.2 CMM (1879 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# Separator High Capacity HEPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

HEPA

SEPARATOR

HIGH CAPACITY

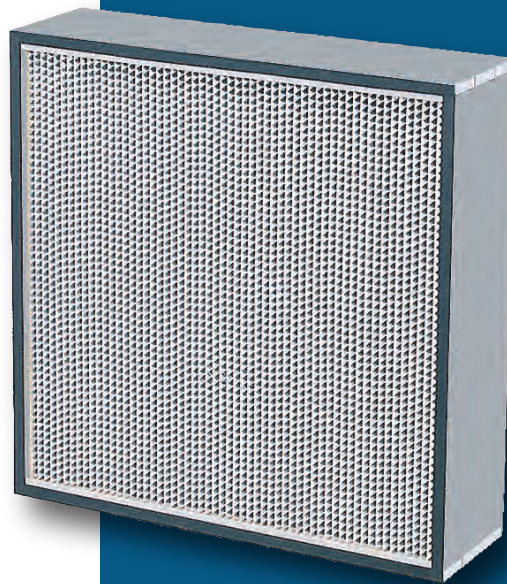
99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop
- Deep Pleated Alu. Separator air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)

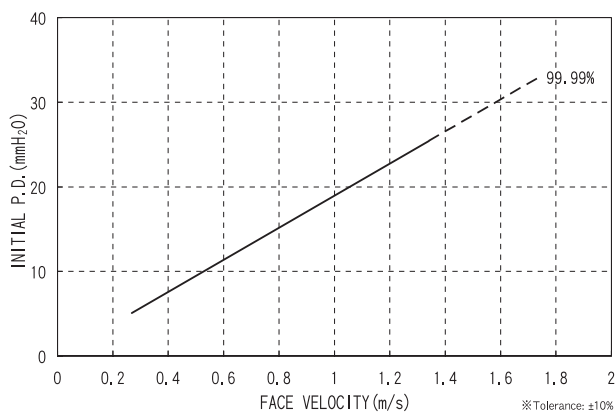


## SPECIFICATIONS

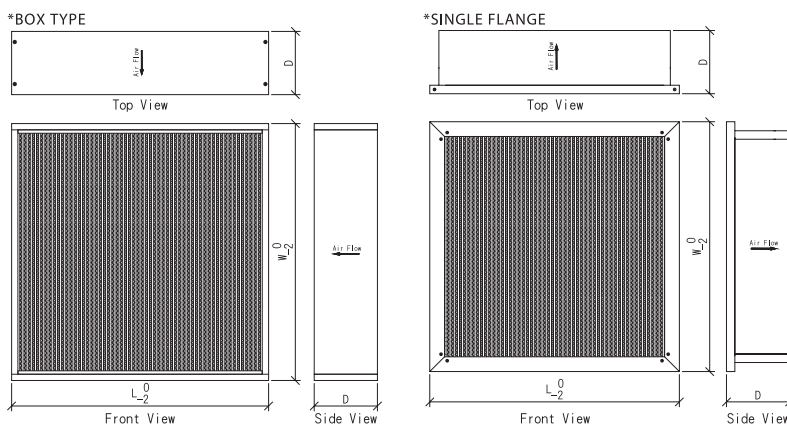
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
H4BA305305150	305×305×150 mm	6.1 CMM (215 CFM)	25.4 mmH <sub>2</sub> O ( 249 Pa )  *Face Velocity : 1.34 m/s	50.8 mmH <sub>2</sub> O ( 500 Pa )  *Recommend
H4BA305610150	305×610×150 mm	12.8 CMM (452 CFM)		
H4BA610610150	610×610×150 mm	27.0 CMM (953 CFM)		
H4BA760610150	760×610×150 mm	34.0 CMM (1201 CFM)		
H4BA915610150	915×610×150 mm	41.3 CMM (1458 CFM)		
H4BAC20610150	1220×610×150 mm	55.5 CMM (1960 CFM)		
H4BAF25610150	1525×610×150 mm	69.7 CMM (2461 CFM)		
H4BA305610150	1830×610×150 mm	83.9 CMM (2963 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# Separator Standard Capacity HEPA Filter

HEPA

SEPARATOR

STD. CAPACITY

ICR, BGR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

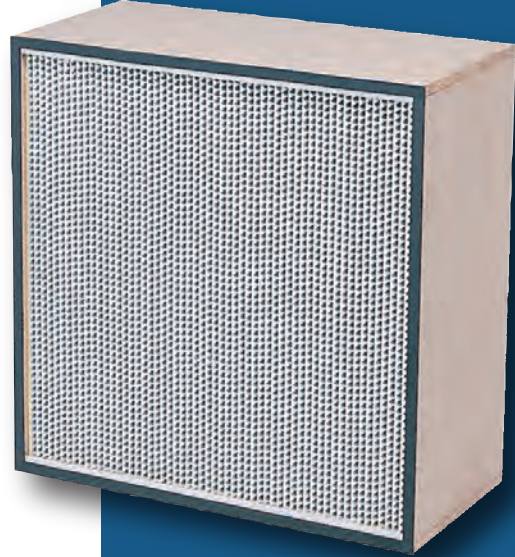
99.999%  
Particle Counting Method 99.99% at 0.3 $\mu$ m  
(DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Deep Pleated Alu. Separator air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)

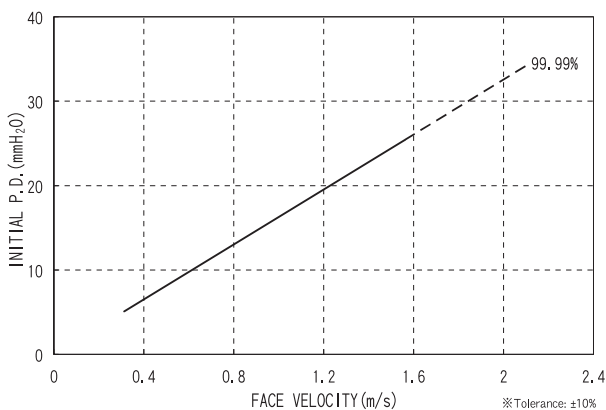


## SPECIFICATIONS

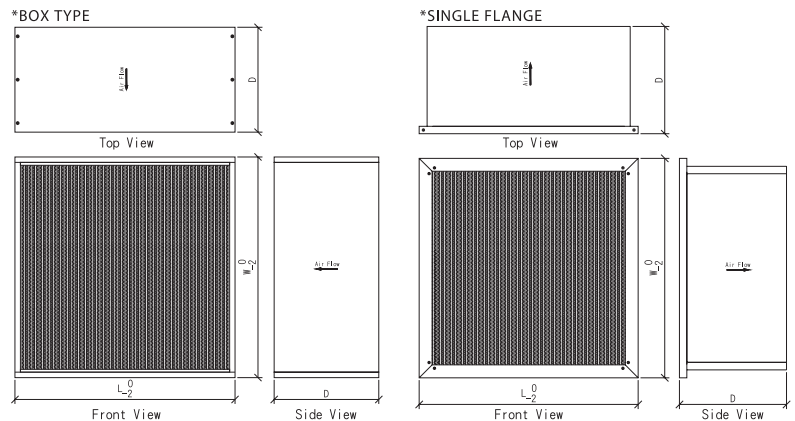
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
H4BA305305290	305×305×290 mm	7.1 CMM (251 CFM)	25.4 mmH <sub>2</sub> O ( 249 Pa )  *Face Velocity : 1.56 m/s	50.8 mmH <sub>2</sub> O ( 500 Pa )  *Recommend
H4BA305610290	305×610×290 mm	14.9 CMM (526 CFM)		
H4BA610610290	610×610×290 mm	31.5 CMM (1112 CFM)		
H4BA760610290	760×610×290 mm	39.6 CMM (1398 CFM)		
H4BA915610290	915×610×290 mm	48.0 CMM (1695 CFM)		
H4BAC20610290	1220×610×290 mm	64.6 CMM (2281 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Separator High Capacity HEPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

HEPA

SEPARATOR

HIGH CAPACITY

99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop
- Deep Pleated Alu. Separator air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)

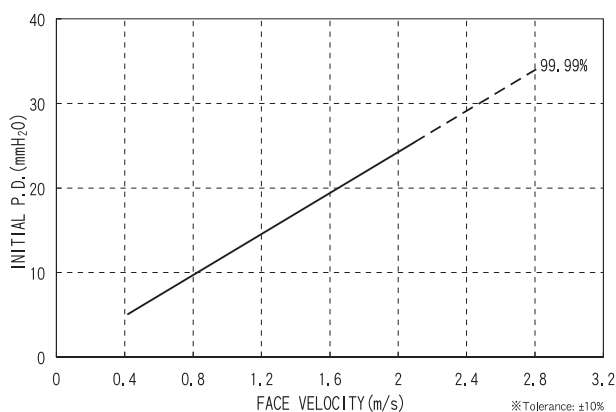


## SPECIFICATIONS

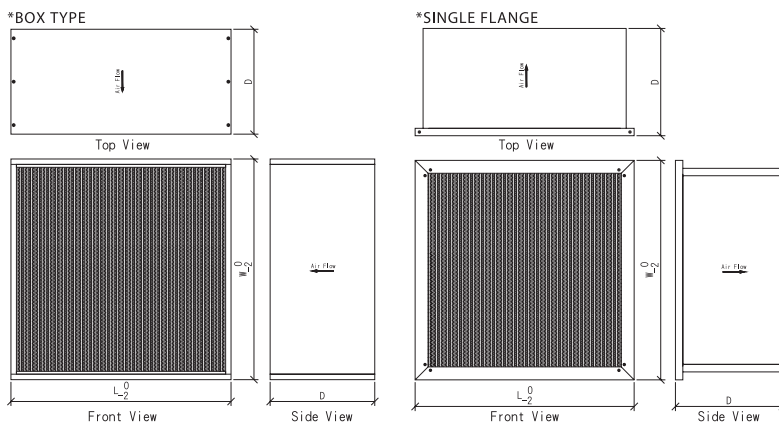
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
H4BA305305290	305×305×290mm	12.7 CMM (448CFM)	34.0 mmH <sub>2</sub> O ( 333 Pa )  *Face Velocity : 2.8 m/s	50.8 mmH <sub>2</sub> O ( 500 Pa )  *Recommend
H4BA305610290	305×610×290 mm	26.9 CMM (950 CFM)		
H4BA610610290	610×610×290 mm	56.6 CMM (2000 CFM)		
H4BA760610290	760×610×290 mm	71.2 CMM (2514 CFM)		
H4BA915610290	915×610×290 mm	86.3 CMM (3047 CFM)		
H4BAC20610290	1220×610×290 mm	116.2 CMM (4103 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Mini pleat Standard Capacity EPA Filter

EPA    MIN PLEAT    STD. CAPACITY    ICR, BGR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

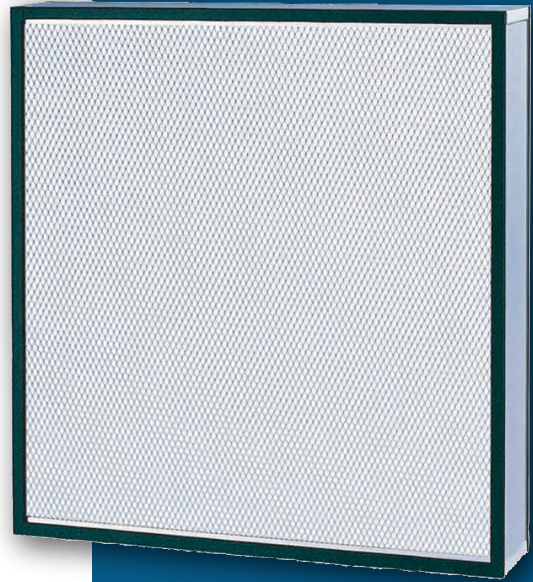
Particle Counting Method 95% at 0.3 $\mu$ m (DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Ultra thin mini pleat air filter

## QUALIFIED WITH

- Std. EN 1822:2009 Class E10
- Std. ASHRAE 52.2-2007 MERV 16



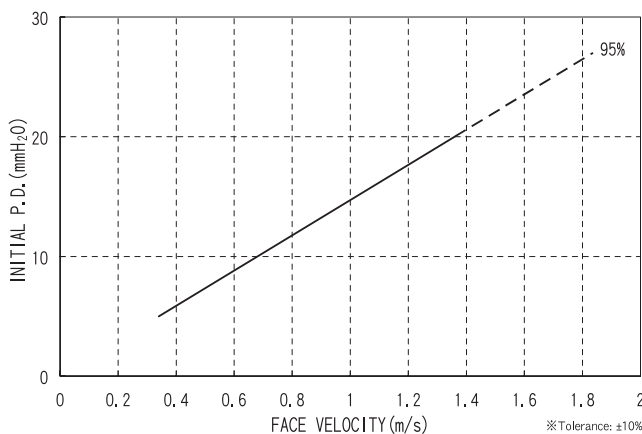
## SPECIFICATIONS

MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
S1MH305610070	305×610×70 mm	8.1 CMM (287 CFM)	12.5 mmH <sub>2</sub> O (122 Pa)  *Face Velocity : 0.85 m/s	25.4 mmH <sub>2</sub> O (250 Pa)  *Recommend
S1MH610610070	610×610×70 mm	17.2 CMM (600 CFM)		
S1MH760610070	760×610×70 mm	21.6 CMM (756 CFM)		
S1MH915610070	915×610×70 mm	26.2 CMM (915 CFM)		
S1MHC20610070	1220×610×70 mm	35.2 CMM (1232 CFM)	5.5 mmH <sub>2</sub> O (54 Pa)  *Face Velocity : 0.35 m/s	11.0 mmH <sub>2</sub> O (108 Pa)  *According to FU Performance
S1MH570570070	570×570×70 mm	7.6 CMM (267 CFM)		
S1MHB70570070	1170×570×70 mm	15.1 CMM (534 CFM)		

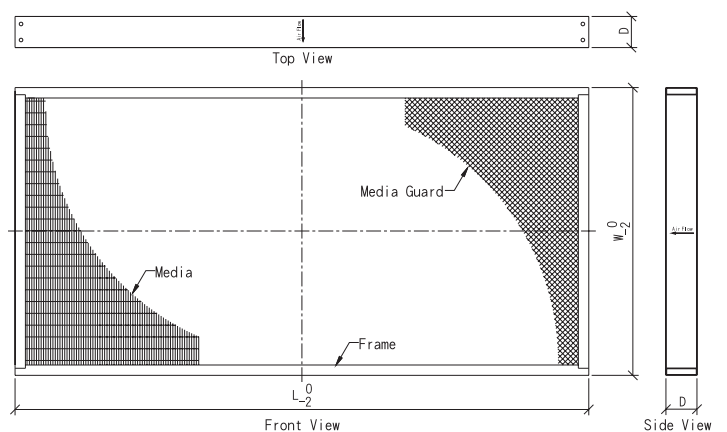
※ Standard depth is 70mm, and there is also available 50mm could be selected.

※ Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# Mini pleat High Capacity EPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

EPA

MINI PLEAT

HIGH CAPACITY

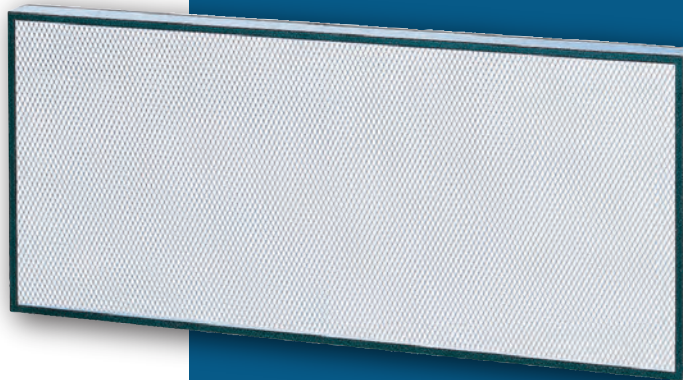
Particle Counting Method 95% at 0.3 $\mu$ m  
(DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop mini pleat air filter

## QUALIFIED WITH

- Std. EN 1822:2009 Class E10
- Std. ASHRAE 52.2-2007 MERV 16

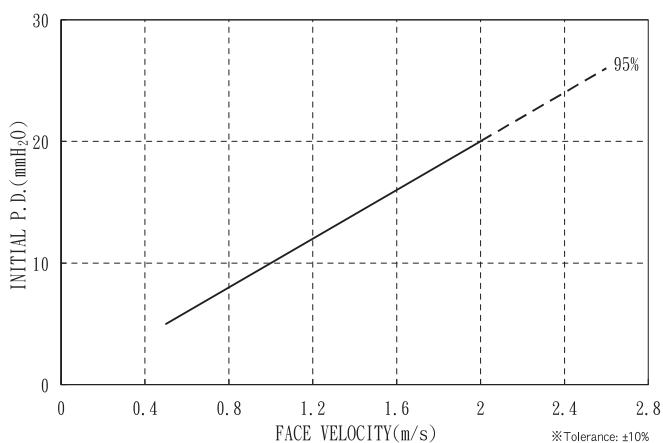


## SPECIFICATIONS

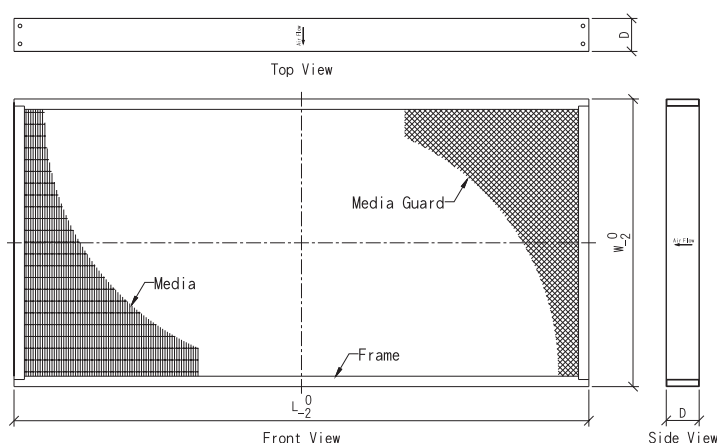
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
S1MH305610070	305×610×70 mm	11.5 CMM (424 CFM)	12.5 mmH <sub>2</sub> O ( 122 Pa )  *Face Velocity : 1.25 m/s	25.0 mmH <sub>2</sub> O ( 250 Pa )  *Recommend
S1MH610610070	610×610×70 mm	24.2 CMM (890 CFM)		
S1MH760610070	760×610×70 mm	30.5 CMM (1123 CFM)		
S1MH915610070	915×610×70 mm	37 CMM (1359 CFM)		
S1MHC20610070	1220×610×70 mm	51.8 CMM (1829 CFM)		
S1MH570570070	570×570×70 mm	7.6 CMM (267 CFM)	3.5 mmH <sub>2</sub> O ( 34 Pa )  *Face Velocity : 0.35 m/s	7.0 mmH <sub>2</sub> O ( 70 Pa )  *According to FU Performance
S1MHB70570070	1170×570×70 mm	15.1 CMM (534 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# V-Bank Standard Capacity EPA Filter

EPA V-BANK STD. CAPACITY ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

Particle Counting Method 95% at 0.3 $\mu$ m (DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop V-Bank air filter
- More efficiency and longer use life time
- Lower energy consumption

## Qualified WITH

- Std. EN 1822:2009 Class E10
- Std. ASHRAE 52.2-2007 MERV16

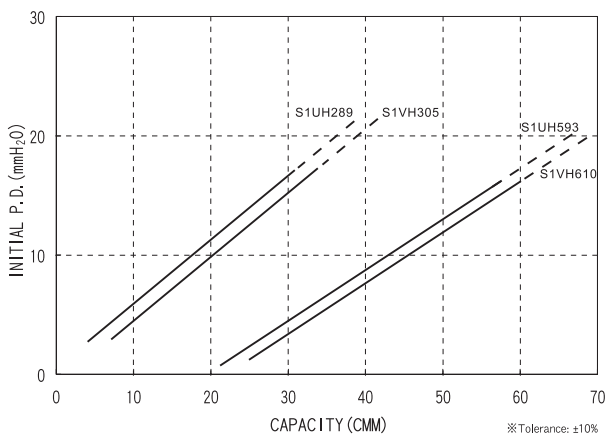


## SPECIFICATIONS

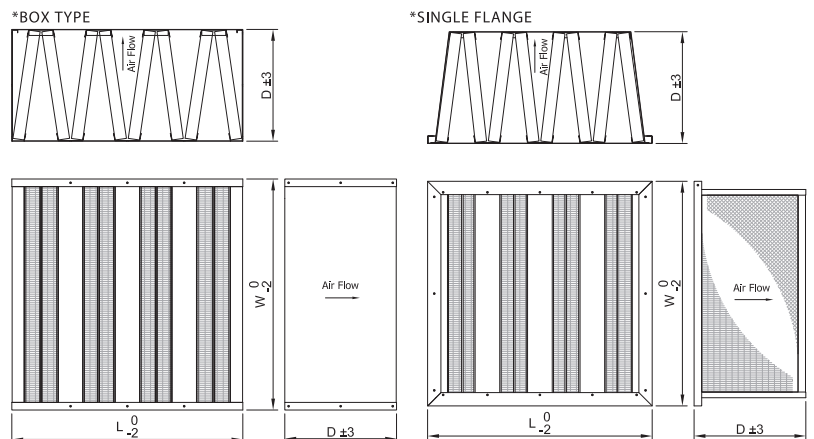
MODEL		DIMENSION LENGTH×WIDTH×DEPTH	*Without Gasket	CAPACITY	INITIAL P.D.	FINAL P.D.
BOX TYPE	S1VH305610293	305×610×293 mm		25.5 CMM (900 CFM)	12.5 mmH <sub>2</sub> O (122 Pa)	25.4 mmH <sub>2</sub> O (250 Pa)
	S1VH610610293	610×610×293 mm		51.0 CMM (1800 CFM)		
SINGLE FLANGE	S1UH289593293	289×593×293 mm		25.5 CMM (900 CFM)	13.6 mmH <sub>2</sub> O (133 Pa)	
	S1UH593593293	593×593×293 mm		51.0 CMM (1800 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# V-Bank High Capacity EPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

EPA

V-BANK

HIGH CAPACITY

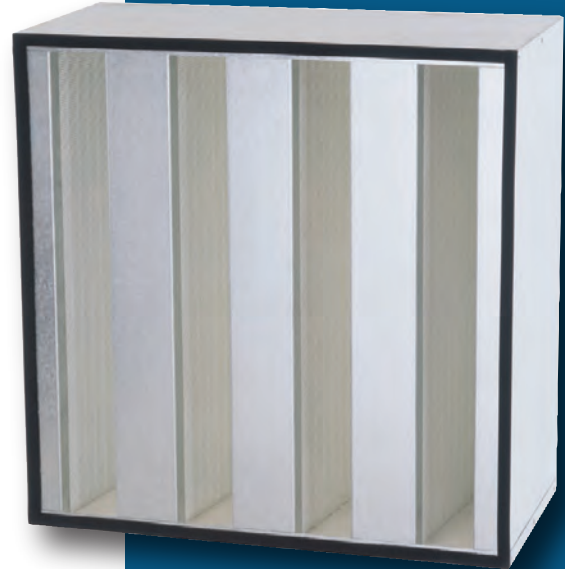
Particle Counting Method 95% at 0.3 $\mu$ m  
(DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C
- Apply Humidity: 100%RH (No Dew)
- Ultra low pressure drop V-Bank air filter
- More efficiency and longer use life time
- Lower energy consumption

## Qualified WITH

- Std. EN 1822:2009 Class E10
- Std. ASHRAE 52.2-2007 MERV16

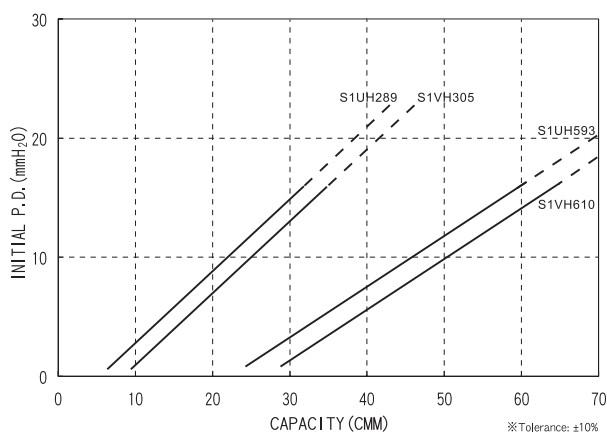


## SPECIFICATIONS

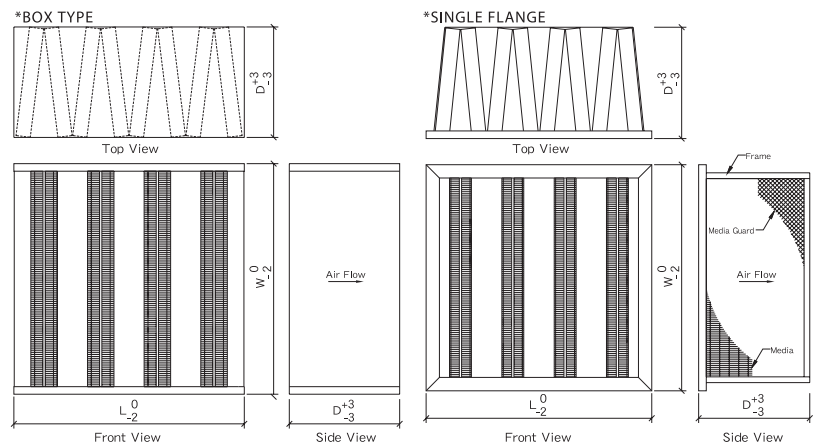
MODEL		DIMENSION LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.	FINAL P.D.
BOX TYPE	S1VH305610293	305×610×293 mm	28.3 CMM (1000 CFM)	12.5 mmH <sub>2</sub> O (122 Pa)	25.4 mmH <sub>2</sub> O (250 Pa)
	S1VH610610293	610×610×293 mm	56.6 CMM (2000 CFM)		
SINGLE FLANGE	S1UH289593293	289×593×293 mm	28.3 CMM (1000 CFM)	13.6 mmH <sub>2</sub> O (133 Pa)	
	S1UH593593293	593×593×293 mm	56.6 CMM (2000 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Separator Standard Capacity EPA Filter

EPA    SEPARATOR    STD. CAPACITY    ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

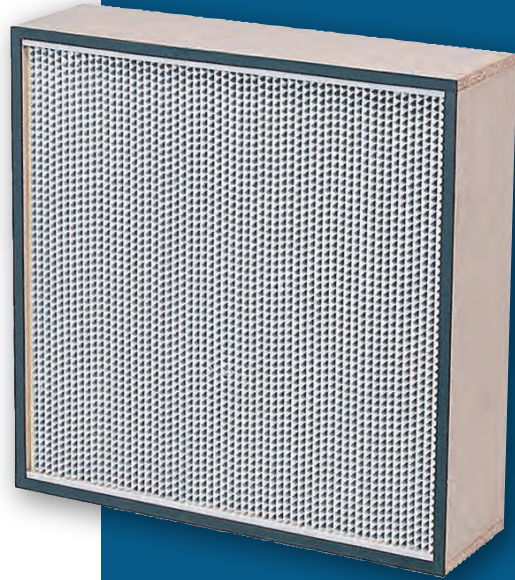
Particle Counting Method 95% at 0.3 $\mu$ m  
(DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Deep Pleated Alu. Separator air filter

## Qualified WITH

- Std. EN 1822:2009 Class E10
- Std. ASHRAE 52.2-2007 MERV16

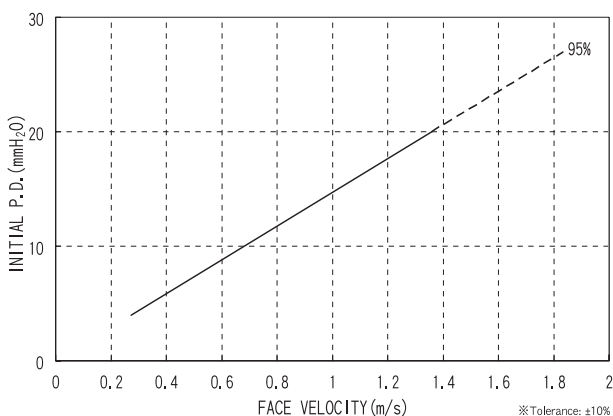


## SPECIFICATIONS

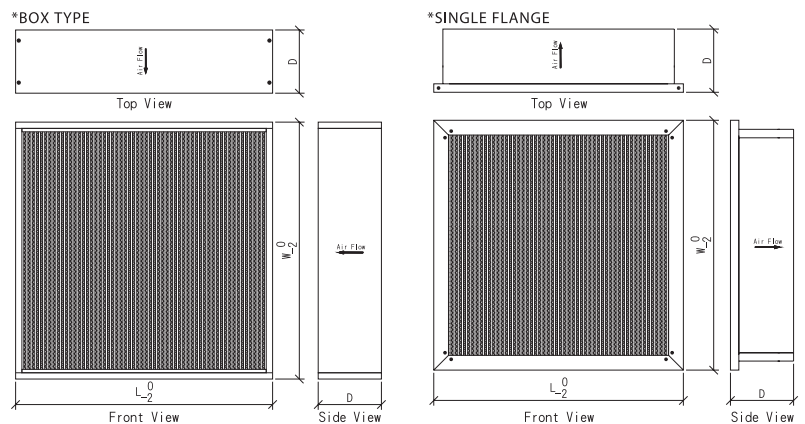
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
S1BA305305150	305×305×150 mm	3.9 CMM (138 CFM)	12.5mmH <sub>2</sub> O (122 Pa)  *Face Velocity : 0.85 m/s	25.0 mmH <sub>2</sub> O (250 Pa)  *Recommend
S1BA305610150	305×610×150 mm	8.1 CMM (286 CFM)		
S1BA610610150	610×610×150 mm	17.2 CMM (607 CFM)		
S1BA760610150	760×610×150 mm	21.6 CMM (763 CFM)		
S1BA915610150	915×610×150 mm	26.2 CMM (925 CFM)		
S1BAB20610150	1220×610×150 mm	35.2 CMM (1243 CFM)		
S1BAF25610150	1525×610×150 mm	44.2 CMM (1561 CFM)		
S1BAI30610150	1830×610×150 mm	53.2 CMM (1879 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Separator High Capacity EPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

EPA

SEPARATOR

HIGH CAPACITY

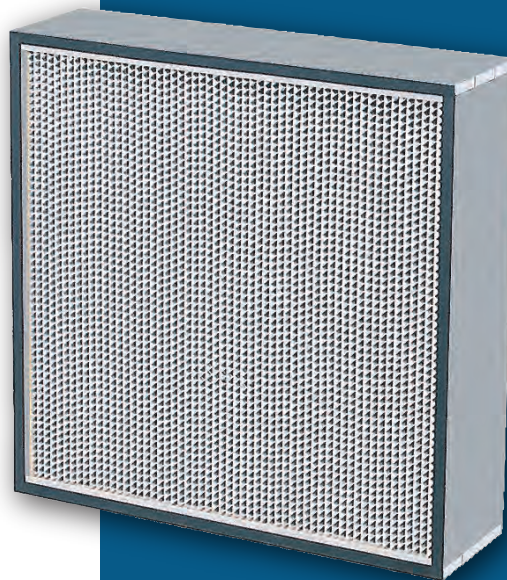
Particle Counting Method 95% at 0.3 $\mu$ m  
(DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop
- Deep Pleated Alu. Separator air filter

## Qualified WITH

- Std. EN 1822:2009  
Class E10
- Std. ASHRAE 52.2-2007  
MERV16

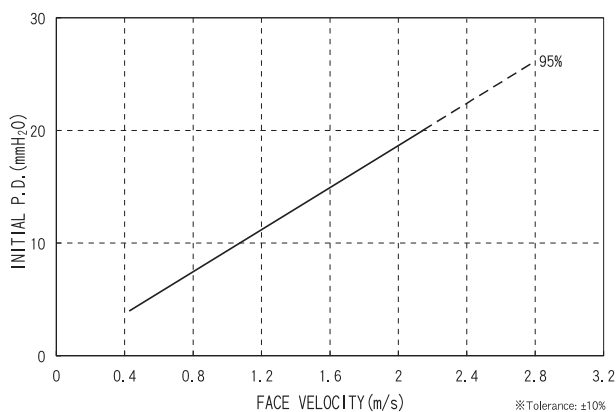


## SPECIFICATIONS

MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
S1BA305305150	305×305×150 mm	6.1 CMM (215 CFM)	12.5 mmH <sub>2</sub> O ( 122 Pa )  *Face Velocity : 1.34 m/s	25.0mmH <sub>2</sub> O ( 250 Pa )  *Recommend
S1BA305610150	305×610×150 mm	12.8 CMM (452 CFM)		
S1BA610610150	610×610×150 mm	27.0 CMM (953 CFM)		
S1BA760610150	760×610×150 mm	34.0 CMM (1201 CFM)		
S1BA915610150	915×610×150 mm	41.3 CMM (1458 CFM)		
S1BAB20610150	1220×610×150 mm	55.5 CMM (1960 CFM)		
S1BAF25610150	1525×610×150 mm	69.7 CMM (2461 CFM)		
S1BAI30610150	1830×610×150 mm	83.9 CMM (2963 CFM)		

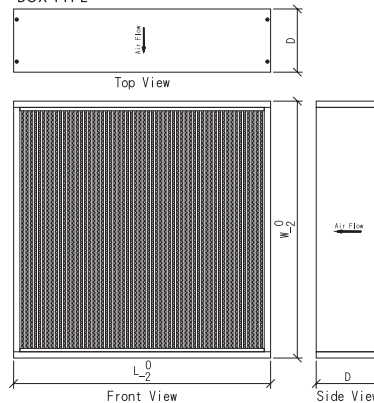
※Special dimension can be customized.

## PERFORMANCE CHART

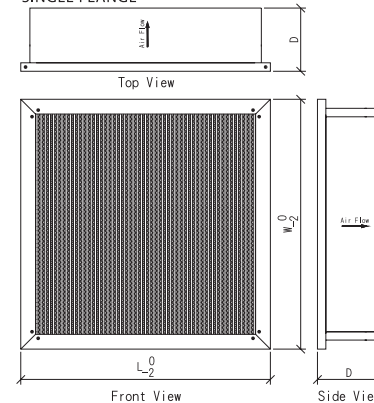


## FILTER THREE-VIEW

\*BOX TYPE



\*SINGLE FLANGE





# Separator Standard Capacity EPA Filter

EPA    SEPARATOR    STD. CAPACITY    ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

Particle Counting Method 95% at 0.3 $\mu$ m  
(DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Deep Pleated Alu. Separator air filter

## Qualified WITH

- Std. EN 1822:2009 Class E10
- Std. ASHRAE 52.2-2007 MERV16

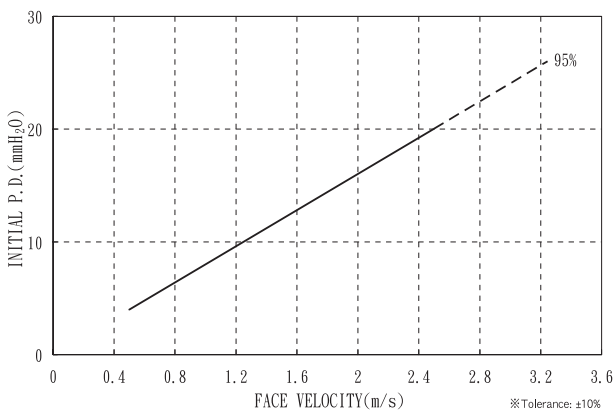


## SPECIFICATIONS

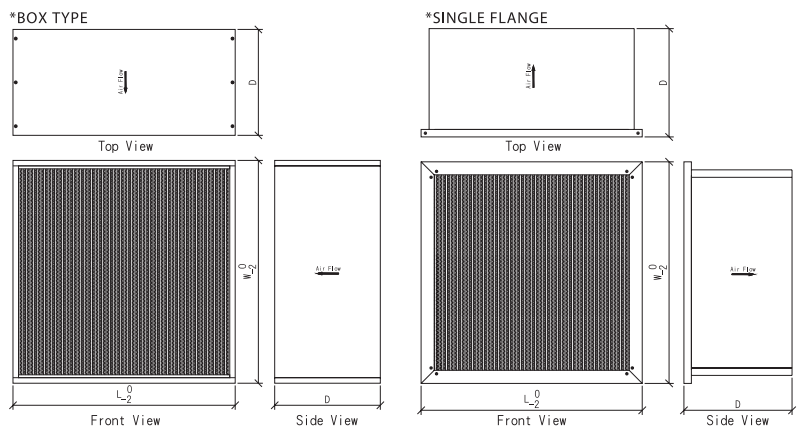
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
S1BA305305290	305×305×290 mm	7.1 CMM (251 CFM)	12.5 mmH <sub>2</sub> O ( 122 Pa )  *Face Velocity : 1.56 m/s	25.0 mmH <sub>2</sub> O ( 250 Pa )  *Recommend
S1BA305610290	305×610×290 mm	14.9 CMM (526 CFM)		
S1BA610610290	610×610×290 mm	31.5 CMM (1112 CFM)		
S1BA760610290	760×610×290 mm	39.6 CMM (1398 CFM)		
S1BA915610290	915×610×290 mm	48.0 CMM (1695 CFM)		
S1BAC20610290	1220×610×290 mm	64.6 CMM (2281 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Separator High Capacity EPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

EPA

SEPARATOR

HIGH CAPACITY

Particle Counting Method 95% at 0.3 $\mu$ m  
(DOP/PSL/PAO)

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop
- Deep Pleated Alu. Separator air filter

## Qualified WITH

- Std. EN 1822:2009  
Class E10
- Std. ASHRAE 52.2-2007  
MERV16

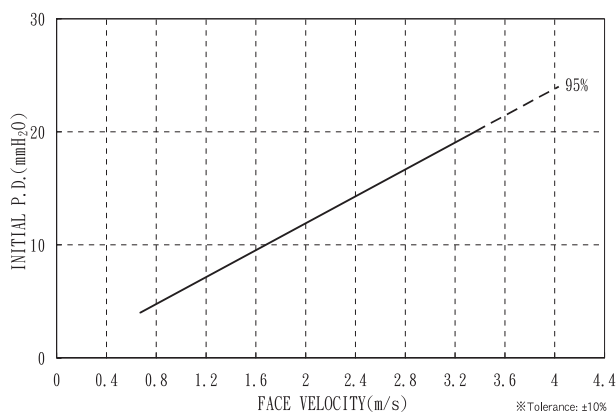


## SPECIFICATIONS

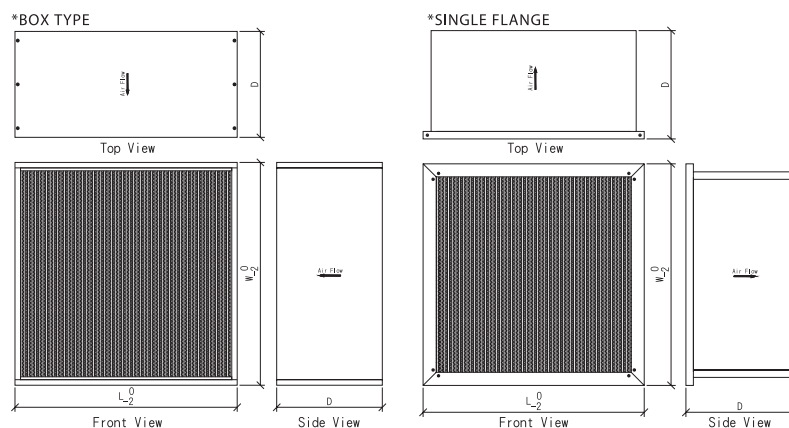
MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.
S1BA305305290	305×305×290 mm	9.5 CMM (335 CFM)	12.5 mmH <sub>2</sub> O ( 122 Pa )  *Face Velocity : 2.1 m/s	25.0 mmH <sub>2</sub> O ( 250 Pa )  *Recommend
S1BA305610290	305×610×290 mm	20.1 CMM (710 CFM)		
S1BA610610290	610×610×290 mm	42.3 CMM (1494 CFM)		
S1BA760610290	760×610×290 mm	53.2 CMM (1879 CFM)		
S1BA915610290	915×610×290 mm	64.5 CMM (2278 CFM)		
S1BAC20610290	1220×610×290 mm	86.8 CMM (3065 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW



# Separator Standard Capacity Medium & Fine Filter

MEDIUM / FINE

SEPARATOR

STD. CAPACITY

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

40%~45%  
60%~65%  
Colorimetric Method 80%~85%  
90%~95%  
> 95%

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Deep Pleated Alu. Separator air filter

## Qualified WITH

- Std. EN 779:2012  
Class M5 / M6 / F7 / F8 / F9
- Std. ASHRAE 52.2-2007  
MERV 9~15

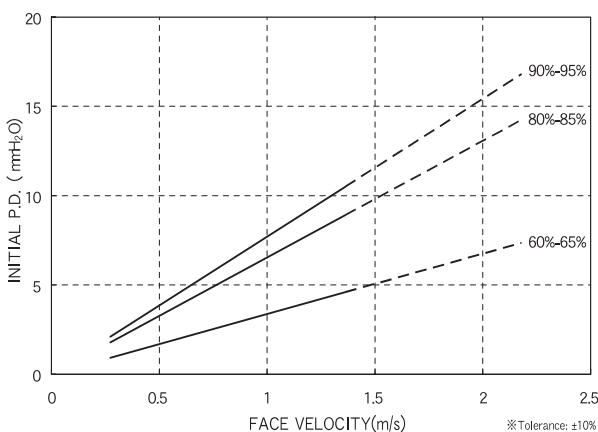


## SPECIFICATIONS

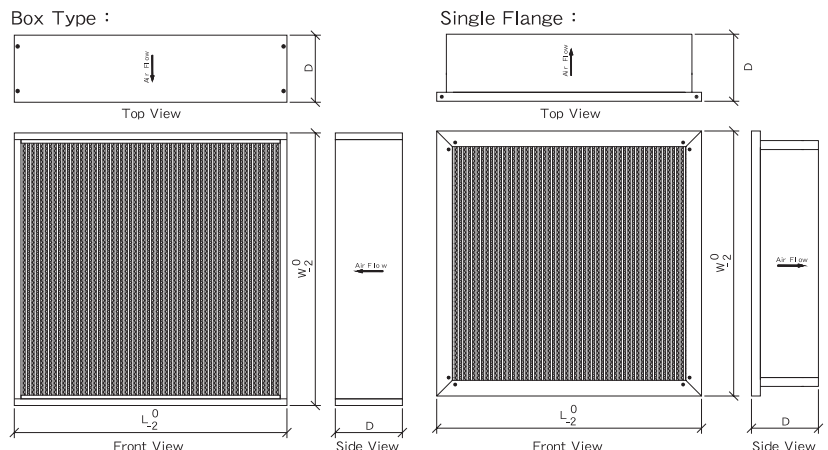
MODEL		DIMENSION LENGTH×WIDTH×DEPTH	*Without Gasket	CAPACITY	INITIAL P.D.	FINAL P.D.
BOX TYPE	M*BA305610150	305×610×150 mm		13.0 CMM (459 CFM)	95% : 10.5 mmH <sub>2</sub> O (103 Pa)	95% : 27 mmH <sub>2</sub> O (265 Pa)
	M*BA610610150	610×610×150 mm		27.5 CMM (971 CFM)	85% : 8.9 mmH <sub>2</sub> O (88 Pa)	85% : 23 mmH <sub>2</sub> O (225 Pa)
SINGLE FLANGE	M*FA289593150	289×593×150 mm		12.3 CMM (434 CFM)	65% : 4.6 mmH <sub>2</sub> O (45 Pa)	65% : 12 mmH <sub>2</sub> O (120 Pa)
	M*FA593593150	593×593×150 mm		27.5 CMM (971 CFM)		*Recommend

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# Separator Standard Capacity Medium & Fine Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

MEDIUM & FINE

SEPARATOR

STD. CAPACITY

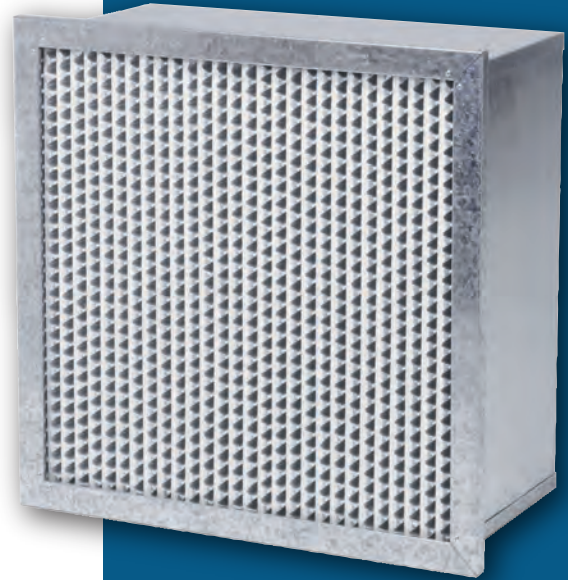
40%~45%  
60%~65%  
Colorimetric Method 80%~85%  
90%~95%  
> 95%

## OPERATING CONDITIONS

- Apply Temperature: 60°C / 110°C (Option)
- Apply Humidity: 100%RH (No Dew)
- Deep Pleated Alu. Separator air filter

## Qualified WITH

- Std. EN 779:2012  
Class M5 / M6 / F7 / F8 / F9
- Std. ASHRAE 52.2-2007  
MERV 9~15

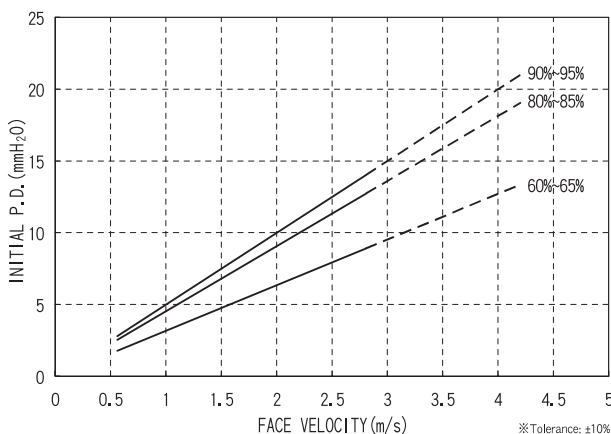


## SPECIFICATIONS

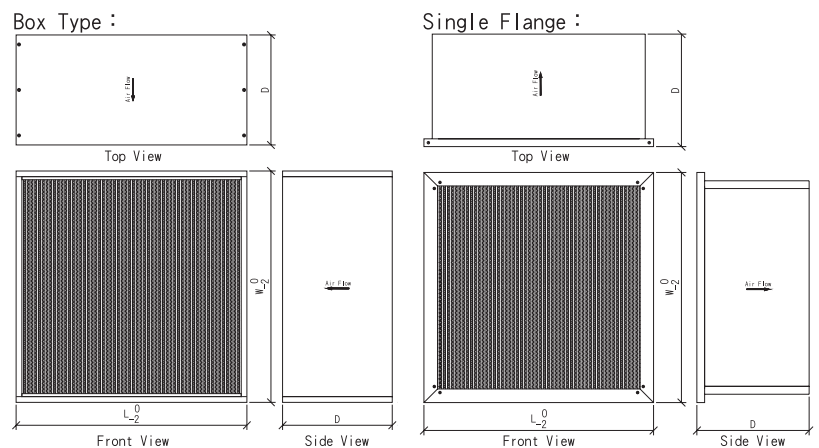
MODEL		DIMENSION LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.	FINAL P.D.
BOX TYPE	M*BA305610290	305×610×290 mm	26.8 CMM (946 CFM)	95% : 14.0 mmH <sub>2</sub> O (137 Pa)	95% : 35 mmH <sub>2</sub> O (345 Pa)
	M*BA610610290	610×610×290 mm	56.6 CMM (2000 CFM)	85% : 12.7 mmH <sub>2</sub> O (124 Pa)	85% : 32 mmH <sub>2</sub> O (315 Pa)
SINGLE FLANGE	M*FA289593290	289×593×290 mm	25.3 CMM (893 CFM)	65% : 8.9 mmH <sub>2</sub> O (88 Pa)	65% : 23 mmH <sub>2</sub> O (226 Pa)
	M*FA593593292	593×593×290 mm	56.6 CMM (2000 CFM)		*Recommend

※Special dimension can be customized.

## PERFORMANCE CHART



## FILTER THREE-VIEW





# Synthetic Pocket Filter

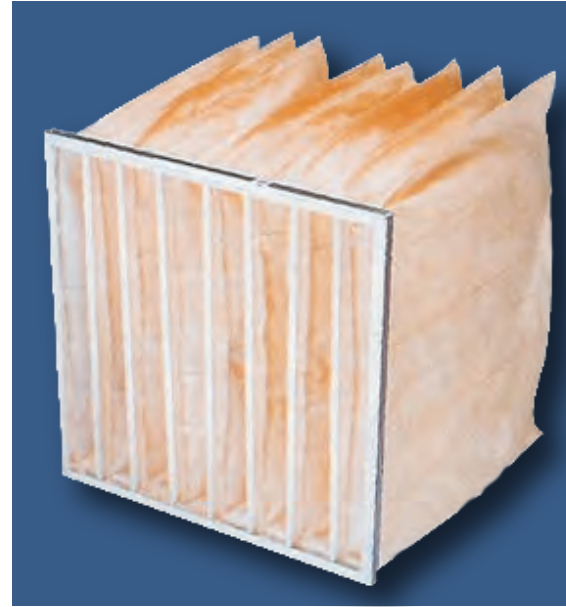
ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

## DESCRIPTION

Synthetic bag filters are constructed of synthetic fiber media and assembled in galvanized steel frame. The stitch of the bag is flexible to maintain shape in changing conditions. In order to prevent any possible leakage, all stitching are sealed with thermo-plastic resin. Our bag filter offers high efficiency filtration while maintaining low resistance to airflow. We have efficiency ranged of 40-45%(brown) 60-65%(green),80-85%(pink), and 90-95%(yellow). The header is constructed with 26-gauge galvanized steel to the filter face. Gasketing products are available to meet your application needs.

## APPLICATIONS

Synthetic bag filters can be used in both commercial and industrial applications and others such as hospitals, schools and public buildings. Therefore, can protect equipments for a longer service life. Bag filter is also used as a medium filter in clean room filtration or where high air cleaning efficiency is required.



## SPECIFICATIONS

95-95% EFFICIENCY			Rated Air Flow Capacity			Initial Resistance			Net Media Area(sq.ft)
Part No.	No.of Pockets	Std.Size	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH	
B9CS-593593381G-001	12	24X24X15	1500	2000	2500	.42	.65	.80	63
B98S-593593559G-001	8	24X24X22	1500	2000	2500	.45	.60	.75	62
B96S-593593559G-001	6	24X24X22	1500	2000	3000	.45	.80	.75	105
B98S-593593762G-001	8	24X24X30	1500	2000	2500	.40	.50	.68	84
B98S-593593914G-001	8	24X24X36	2000	2500	3000	.46	.62	.77	102

80-85% EFFICIENCY			Rated Air Flow Capacity			Initial Resistance			Net Media Area(sq.ft)
Part No.	No.of Pockets	Std.Size	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH	
B8CS-593593381G-001	12	24X24X15	1500	2000	2500	.25	.42	.60	63
B88S-593593559G-001	8	24X24X22	1500	2000	2500	.25	.40	.55	62
B8AS-593593762G-001	10	24X24X30	2000	2500	3000	.30	.45	.60	105
B86S-593593762G-001	6	24X24X30	1000	1500	2000	.24	.30	.40	65
B86S-593593914G-001	6	24X24X36	1500	2000	2500	.25	.30	.40	82

60-65% EFFICIENCY			Rated Air Flow Capacity			Initial Resistance			Net Media Area(sq.ft)
Part No.	No.of Pockets	Std.Size	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH	
B6CS-593593381G-001	12	24X24X15	1500	2000	2500	.20	.30	.40	63
B68S-593593559G-001	8	24X24X22	1500	2000	2500	.15	.24	.38	62
B6AS-593593762G-001	10	24X24X30	2000	2500	3000	.25	.35	.45	105
B68S-593593914G-001	8	24X24X36	2000	2500	3000	.23	.33	.46	102
B66S-593593914G-001	6	24X24X36	1500	2000	2500	.18	.24	.34	82

40-45% EFFICIENCY			Rated Air Flow Capacity			Initial Resistance			Net Media Area(sq.ft)
Part No.	No.of Pockets	Std.Size	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH	
B66S-593593381G-001	6	24X24X15	1500	2000	2500	.12	.20	.29	33
B66S-593593559G-001	6	24X24X22	1500	2000	2500	.10	.18	.28	48

\*Other sizes available: Consult Factory for sizes and performance data\*

# Extended Surface Filters Series 400

Air Filters and filtration systems for cleanrooms

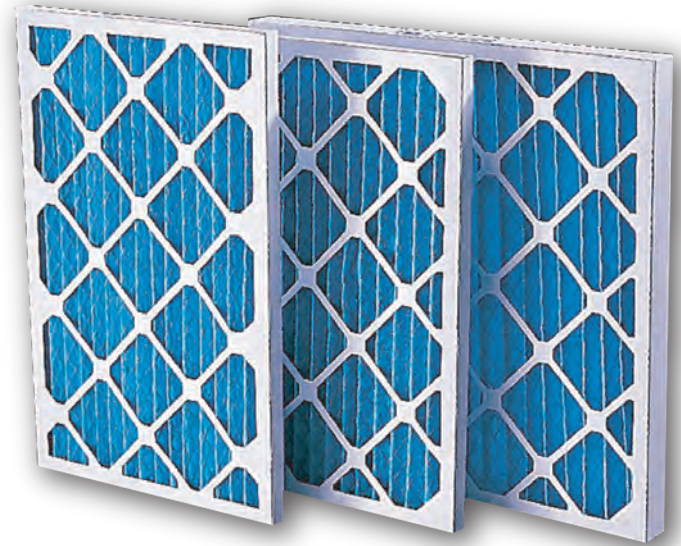
ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

## DESCRIPTION

The Extended Surface Series 400 filters incorporate a 100% synthetic media with an ASHRAE 52.1 average atmospheric efficiency of 30% to 35% and an average arrestance exceeding 90% by weight. The 1" and 2" filters handle velocities of up to 500 FPM, the 4" filters up to 625 FPM.

The media is chemically bonded to a metal mesh on the air-exiting side, preventing fluttering, and maintaining uniformity of the pleats. That filter pack is enclosed in a heavy-duty, moisture resistant, die-cut frame that will not warp, crack or distort under normal operating conditions.

Diagonal front and back media retainers are an integral part of the filter frame. The media pack is bonded to every part of the frame, preventing any possibility of air bypass.



FEET PER MINUTE(FPM)							
Filter Depth	Medium Velocity	Initial Resistance (Medium "W.G.)		High Velocity	Initial Resistance (High "W.G.)		Final Resistance* (All Filters)
		Std	High Cap		Std Cap	High	
1"	375	0.25	0.20	500	0.40	0.35	1.0
2"	375	0.16	0.15	500	0.26	0.24	1.0
4"	500	0.29	0.22	625	0.39	0.33	1.0

\*Recommended final resistance. System may dictate a lower change-out point.

SERIES 400								
Part Number	Nominal	Actual Size			Cfm Capacities		Media Area (Sq Ft)	
		Size	H	W	D	Medium	High	Std Cap
P3SS-289593022C-001	12X24X1	11 3/8	23 3/8	3/4	325	450	1.6	2.4
P3SS-340593022C-001	14X24X1	13 3/8	23 3/8	3/4	875	975	4.2	5.7
P3SS-391492022C-001	16X20X1	15 1/2	19 1/2	3/4	825	875	4.0	5.2
P3SS-391619022C-001	16X25X1	15 1/2	24 1/2	3/4	1050	1325	5.0	6.6
P3SS-492492022C-001	20X20X1	19 1/2	19 1/2	3/4	1050	1550	5.0	6.7
P3SS-492593022C-001	20X24X1	19 3/8	23 3/8	3/4	1250	1400	6.0	8.1
P3SS-492619022C-001	20X25X1	19 1/2	24 1/2	3/4	1300	1650	6.2	8.4
P3SS-593593022C-001	24X24X1	23 3/8	23 3/8	3/4	1500	1675	7.2	9.6
P3SS-340492047C-001	14X20X2	13 1/2	19 1/2	1 3/4	725	975	6.2	8.8
P3SS-391492047C-001	16X20X2	15 1/2	19 1/2	1 3/4	825	1100	6.7	10.4
P3SS-492492047C-001	20X20X2	19 1/2	19 1/2	1 3/4	1050	1400	8.8	12.9
P3SS-492619047C-001	20X25X2	19 1/2	24 1/2	1 3/4	1300	1750	11.0	16.2
P3SS-593593047C-001	24X24X2	23 3/8	23 3/8	1 3/4	1500	2000	12.4	18.6
P3SS-619619047C-001	25X25X2	24 3/4	24 3/4	1 3/4	1625	2150	13.6	20.1
P3SS-289593098C-001	12X24X4	11 3/8	23 3/8	3 5/8	1000	1250	11.5	15.3
P3SS-391492098C-001	16X20X4	15 3/8	19 3/8	3 5/8	1100	1400	12.8	17.0
P3SS-492492098C-001	20X20X4	19 3/8	19 3/8	3 5/8	1400	1750	16.0	21.3
P3SS-492593098C-001	20X24X4	19 3/8	23 3/8	3 5/8	1657	2100	19.2	25.5
P3SS-492619098C-001	20X25X4	19 3/8	24 3/8	3 5/8	1750	2200	19.9	26.6
P3SS-593593098C-001	24X24X4	23 3/8	23 3/8	3 5/8	2000	2500	23.0	30.6

## BENEFITS

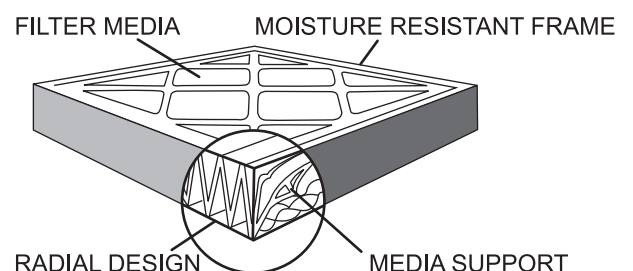
It is possible for a flat filter to face load, so restricting airflow and causing unnecessary strain on equipment. The Series 400 filters accumulate the heavier, more restrictive particles at the bottom of the pleats, leaving the sides open longer for effective filtration. The series 400 filter media is engineered to provide maximum efficiency. Generally, the deeper the pleats the longer filter life between changeouts.

- Rigid construction with consistent media extends the service life.
- Well-built, efficient and easy-to-handle medium efficiency filters.
- Low initial pressure drop.
- consistent efficiency results.

FILTER MEDIA AREA				
Filter Depth	Fleat Per Linear Ft		Sq. Ft of Media Per Sq. Ft of Face Area	
	Std Cap	High Cap	Std Cap	High Cap
1"	12	18	1.75	2.33
2"	10	15	3.125	4.688
4"	9	12	5.813	7.75

## APPLICATIONS

These filters can be used without modification in side-access filter housing or built-up filter bank. They offer better efficiency than conventional permanent or disposable flat filters. The Series 400 filters, when used as pre-filters, substantially extend the life of more expensive high-efficiency filters. They are perfect filters for residential, commercial and industrial use.



## POLYESTER FILTER

Kowa polyester filter media is safe and easy to handle and does not break down in use. Suitable for uses where fiberglass is not indicated, such as food processing and medical facilities. Fibers are held together with resin that is flame retardant and moisture resistant.

Media consisting of 100% polyester bonded fibers is formed into an interlocking pattern that traps dust and lint, while minimizing face surface loading. Polyester media fibers won't break off and flow into air stream.

Used to replace fiberglass filters where minimal downstream contamination is required. Filters have metal support on both sides and a heavy cardboard frame. For all heating ventilating, and air-conditioning applications.



## SPECIFICATIONS

Model	Nominal W*L	Depth MM	Wind Velocity V m/s	Resistance		Efficiency %
				Initial (mmAq)	End (mmAq)	
P2FP-50MA00005N-001	1M*50M	5	2.5	3.5	15	70
P2FP-30MA00010N-001	1M*30M	10	2.5	4.7	20	80
P2FP-20MA00020N-001	1M*20M	20	2.0	6.5	20	85
P2FP-20MA00025N-001	1M*20M	25	2.0	7.0	20	90
P2FP-50MC000005-001	1.2M*50M	5	2.5	3.5	15	70
P2FP-30MC000010-001	1.2M*30M	10	2.5	4.7	20	80
P2FP-20MC000020-001	1.2M*20M	20	2.5	6.5	20	85
P2FP-20MC000025N-001	1.2M*20M	25	2.0	7.0	20	90
P2FP-20MK00020N-001	2M*20M	20	1.5	6	24.5	93

\*Other sizes available: Consult Factory for sizes and performance data\*

## PURPOSE:

- 1 This type of filter serves as the first gate of the air filtration system and it is mainly used to filter outside air. Polyester Filter is disposable, so multiple usages is not recommended.
- 2 Polyester Filter is suitable for all kinds industrial manufactures, such as contamination prevention, HVAC system, waste treatment and contaminated process air.
- 3 Polyester Filter is also commonly used in pharmaceutical manufacture and food processing due to its ability to filter contamination air.

## CUSTOMIZED MADE POLYESTER:

Fire-retarded filter and anti-virus filter can also be made with imported Polyester fiber and be processed and packed in local factory.

## SIZES:

- In Rolls
- In pieces



# All Aluminum & Stainless Steel Air Filters

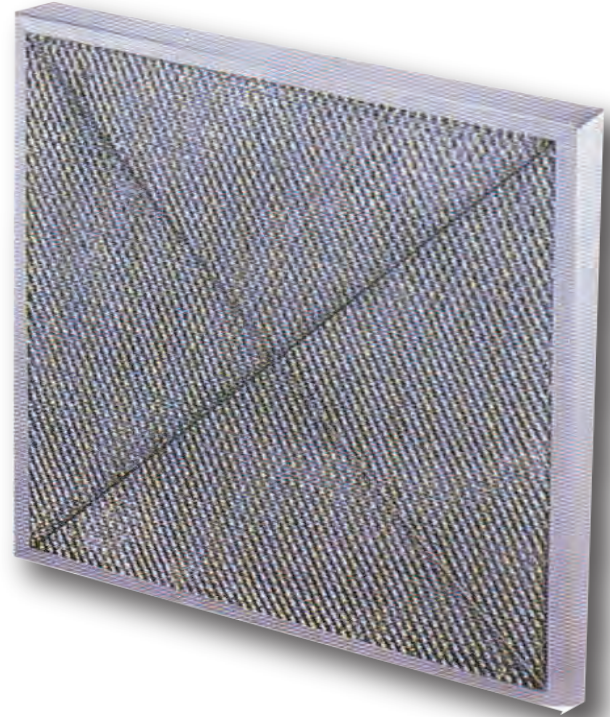
Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

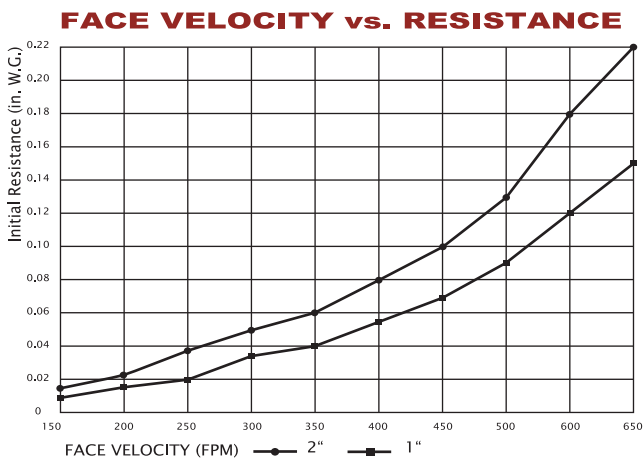
All Aluminum air filters from KOWA are perhaps economical and serve as an effective solution for air filtration in different industrial. The filter media primarily consists of many layers of aluminum slit and expanded into mesh of differing densities to increase the holding capacity and efficiency of media.

The filter media of the KOWA Filters Stainless Steel Air Filter is composed of multi-layers of pleated and corrugated stainless screen wires. Layering of media offers maximum filter surface area. Both sides are crossed to stainless bars to support the filter stronger and rigidity.

The all Aluminum and Stainless Filters are made of 100% aluminum and stainless metal. So it is easy to clean and serve for saving your costs and maintain a durable use.



(All Aluminum Air Filter)



Thickness	Average Arrestance(%)	Average Arrestance(%)
1"	72.5	91
2"	81.5	143

**KOWA Non-Woven Air Filters** provide maximum airflow, low-pressure drop, and high arrestance. they are suited for air ventilation systems of general air filtration. There are filter media replacements available.

The filters are available in a wide variety of sizes, styles, and thickness. The width of filter is up to 1.8M and can be framed by beverage board, galvanized steel, and aluminum. The filter media can be provided in cut pads or rolls.

The filter media consists of Polyester, Nylon, and Acetate and is made with multidirectional needles. Fibers are bound completely to provide higher arrestance and dust holding capacity.

The media is tested in accordance with AF(Air Filter Institute). The arrestance value exceeds80% and the resistance is under 2.5mm W.G

The filters can also be made with acid-resistant or alkali-resistant specifications for particular uses upon customer requests.



(Non-Woven Air Filter)



# Separator High Temperature HEPA Filter

HEPA

SEPARATOR

HIGH TEMP.

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

99.999%  
 Particle Counting Method 99.99% at 0.3 $\mu$ m  
 (DOP/PSL/PAO) 99.97%

## OPERATING CONDITIONS

- Apply Temperature: Max. 250°C
- Apply Humidity: 100%RH (No Dew)
- Low pressure drop
- Deep Pleat Alu. Separator air filter

## QUALIFIED WITH

- Std. EN 1822:2009  
Class H14 / H13 / E12
- Std. IEST RP-CC-001.5:2009  
TYPE D (MERV19) / C (MERV18) / A (MERV17)

## CONDITIONS

- High temperature filter can be used in baking machinery in electronics industry, clean room and high temperature production lines, such as painting room for automobiles.
- High temperature frame is made of stainless steel material.
- High temperature filters are durable under high condition to provide a clarified and satisfied environment.

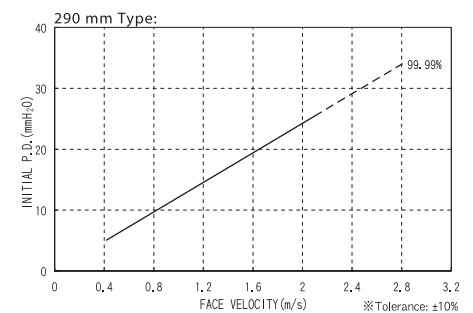
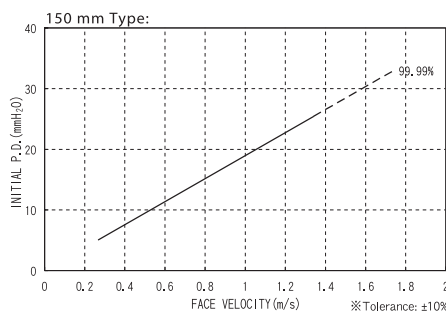
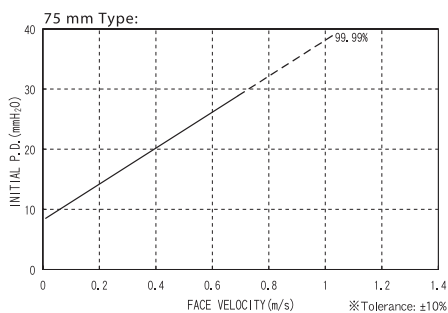


## SPECIFICATIONS

MODEL	DIMENSION LENGTH×WIDTH×DEPTH <small>*Without Gasket</small>	CAPACITY	INITIAL P.D.	FINAL P.D.	
H4HA305305075SSNS	305×305×75 mm	3.5 CMM (124 CFM)	25.4 mmH <sub>2</sub> O ( 249 Pa )  *Face Velocity : 0.48 m/s	50.8 mmH <sub>2</sub> O ( 500 Pa )	
H4HA610610075SSNS	610×610×75 mm	15.5 CMM (547 CFM)			
H4HA915610075SSNS	915×610×75 mm	23.7 CMM (837 CFM)			
H4HA305305150SSNS	305×305×150 mm	6.1 CMM (215 CFM)	25.4 mmH <sub>2</sub> O ( 249 Pa )  *Face Velocity : 1.34 m/s		
H4HA610610150SSNS	610×610×150 mm	27.0 CMM (953 CFM)			
H4HAC20610150SSNS	1220×610×150 mm	55.5 CMM (1960 CFM)			
H4HA305305290SSNS	305×305×290 mm	12.7 CMM (448 CFM)	34.0 mmH <sub>2</sub> O ( 333 Pa )  *Face Velocity : 2.8 m/s		*Recommend
H4HA610610290SSNS	610×610×290 mm	56.6 CMM (2000 CFM)			
H4HAC20610290SSNS	1200×610×290 mm	116.2 CMM (4103 CFM)			

※Special dimension can be customized.

## PERFORMANCE CHART



# Mini Pleat High Capacity Knife-Edge ULPA/HEPA Filter

Air Filters and filtration systems for cleanrooms

ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction

ULPA

MINI PLEAT

HIGH CAPACITY



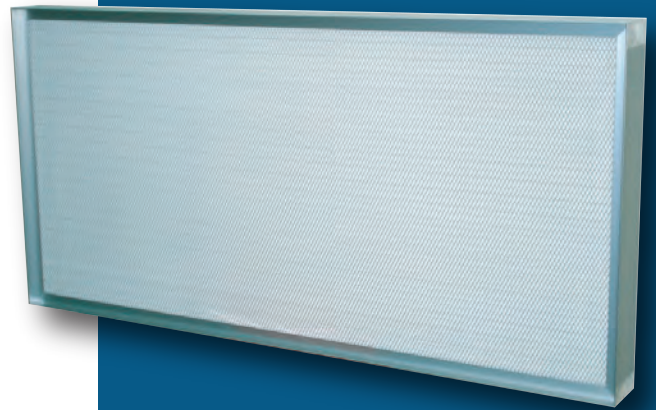
Particle Counting Method  $99.99995\%$  at  $0.1 \mu\text{m}$   
(DOP/PSL/PAO)  $99.9995\%$

- Std. EN 1822:2009 Class U16 / U15
- Std. IEST RP-CC-001.5-2009 TYPE G / F



Particle Counting Method  $99.999\%$  at  $0.3 \mu\text{m}$   
(DOP/PSL/PAO)  $99.97\%$

- Std. EN 1822:2009 Class H14 / H13 / E12
- Std. IEST RP-CC-001.5-2009 TYPE D / C / A



## OPERATING CONDITIONS

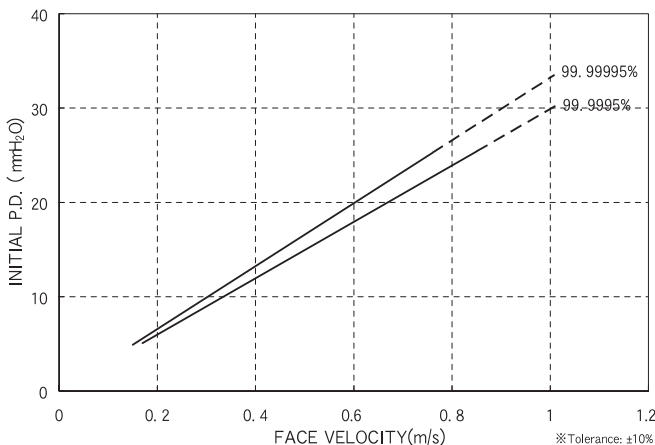
- Apply Temperature:  $60^{\circ}\text{C}$
- Apply Humidity: 100%RH (No Dew)
- Ultra thin mini pleat air filter (Knife-Edge = 88mm)

## SPECIFICATIONS

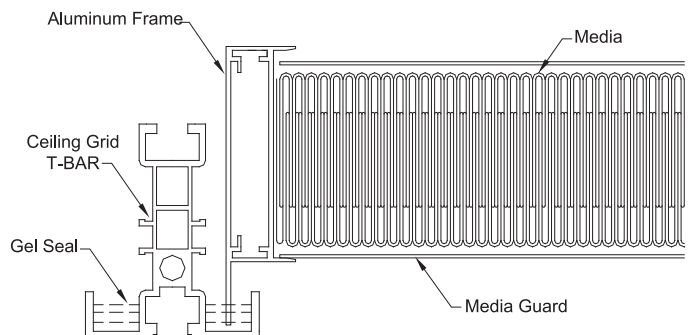
MODEL <small>*ULPA Filter</small>	DIMENSION LENGTH×WIDTH×DEPTH	CAPACITY	INITIAL P.D.	FINAL P.D.
U5KH305610088	305×610×88 mm	8.1 CMM (286 CFM)	25.4 mmH <sub>2</sub> O (249 Pa)  *Face Velocity : 0.85 m/s	50.8 mmH <sub>2</sub> O (500 Pa)  *Recommend
U5KH610610088	610×610×88 mm	17.2 CMM (607 CFM)		
U5KH760610088	760×610×88 mm	21.6 CMM (763 CFM)		
U5KH915610088	915×610×88 mm	26.2 CMM (925 CFM)		
U5KHC20610088	1220×610×88 mm	35.2 CMM (1243 CFM)		
U5KH570570088	570×570×88 mm	7.6 CMM (267 CFM)	10.0 mmH <sub>2</sub> O (98 Pa)  *Face Velocity : 0.35 m/s	20.0 mmH <sub>2</sub> O (200 Pa)  *According to FU Performance
U5KHB70570088	1170×570×88 mm	15.1 CMM (534 CFM)		

※Special dimension can be customized.

## PERFORMANCE CHART

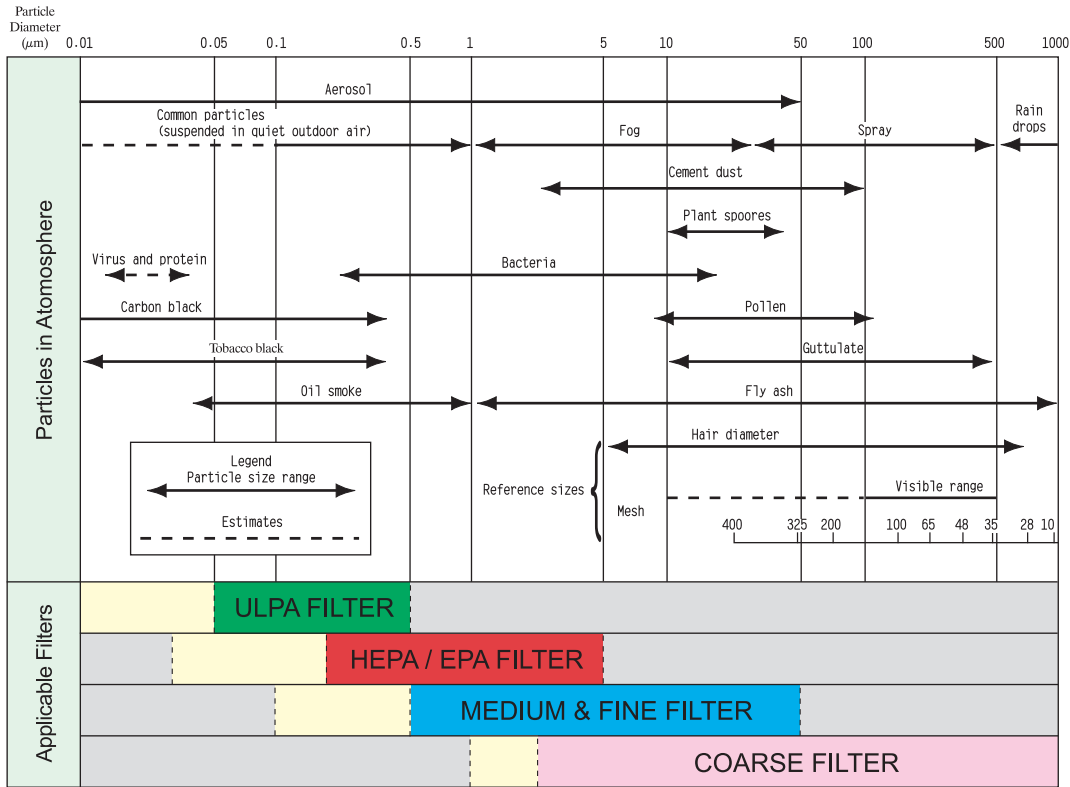


## DETAIL-VIEW



# Particles In Atmosphere & Air Filters Selections

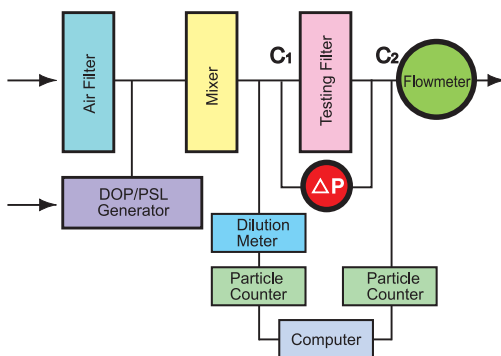
ICR, BCR, ULPA, HEPA, Air Filter, Design, Manufacture, Construction



## AIR FILTER EFFICIENCY TEST METHODS

### COUNTING METHOD (DOP/PSL) Apply to ULPA/HEPA/EPA filter

Applicable test aerosol is DOP(di-octyl phthalate) or PSL(polystyrene latex spheres). This kind of aerosol is generated by monodispersion and fed into the upstream side of the testing filter. Use two particle counters to measure the concentrations upstream and downstream to determine the collection efficiency.

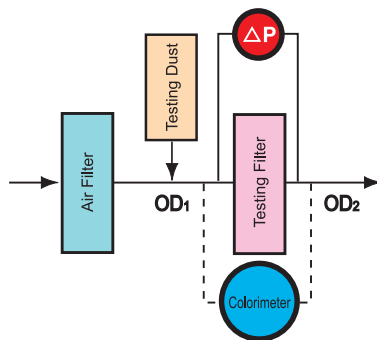


$$\text{Collection Efficiency(\%)} = [(C1 - C2) / C1] \times 100\%$$

C1 : Upstream aerosol concentration  
C2 : Downstream aerosol concentration

### COLORIMETRIC METHOD Apply to MEDIUM & FINE filter

Sample amount of particle by media at both of upstream and downstream of testing filter. Project light to sampling media and measure the transmitted light volume. The transmitted light volume indicate by optical density(OD) that measured by colorimeter. The Collection efficiency is calculated from difference of optical density at sample media.

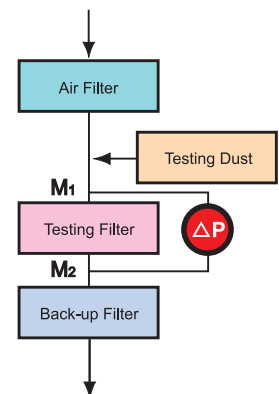


$$\text{Average Efficiency(\%)} = [(OD1 - OD2) / OD1] \times 100\%$$

OD1 : Upstream optical density value  
OD2 : Downstream optical density value

### GRAVIMETRIC METHOD Apply to COARSE filter

Testing dust is fed into the top inlet of test facility, and then collected by testing filter. A back-up filter is installed to catch all dust that passed testing filter. According to the relevant weight criteria of dust caught by testing filter and back-up filter. The collection efficiency would be calculated.



$$\text{Average Arrestance(\%)} = [(M1 - M2) / M1] \times 100\%$$

M1 : Mass of dust caught by testing filter  
M2 : Mass of dust caught by back-up filter



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