

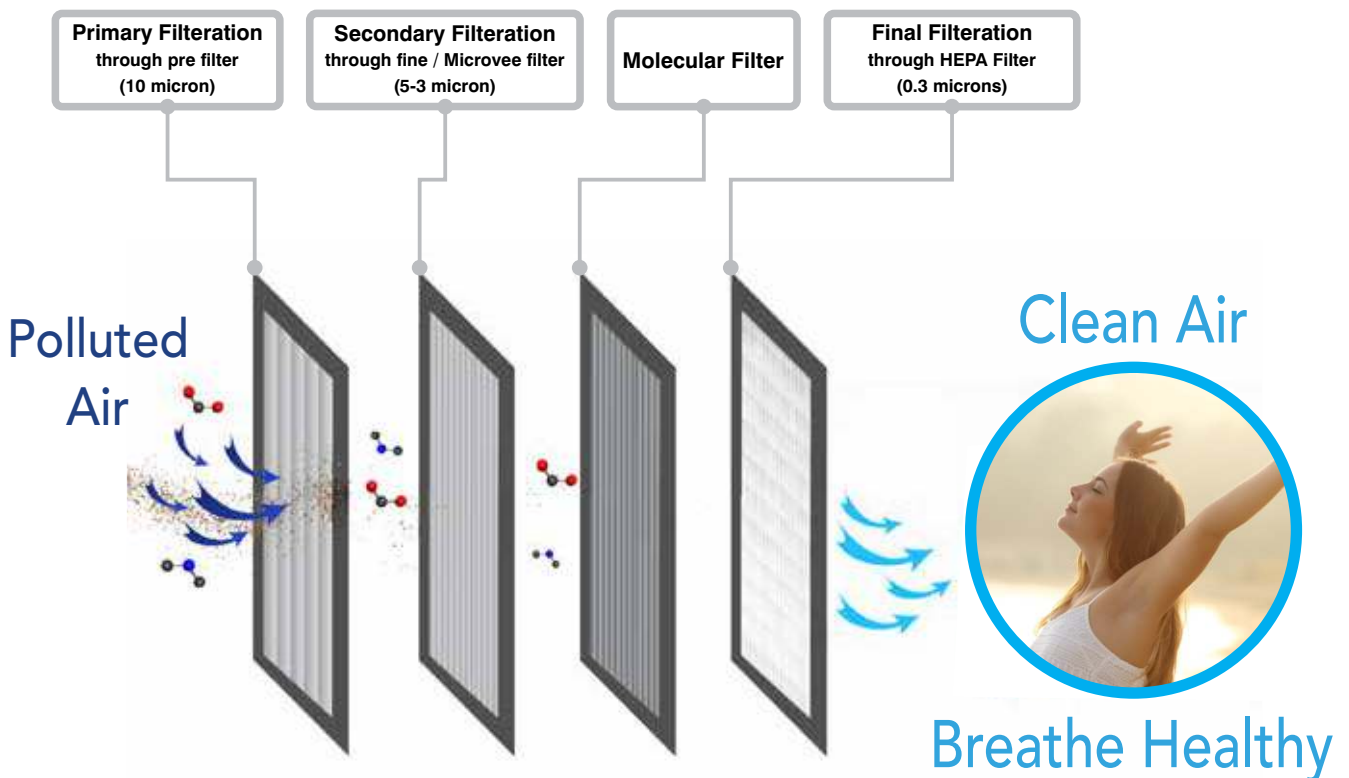
Air Filter **PRODUCT** *Catalogue*

“Clean Air Through Technology”



AIR FILTRATION SOLUTIONS PROVIDER

BLL FOR IAQ MAKING INDOOR AIR SAFER TO BREATHE HEALTHY AIR



“Clean Air Through Technology”

Solution to Quality & Clean Air with SBRG Clean Tech Pvt. Ltd.





**SBRG FILTERS GIVE CLEAN AIR TO THE FOLLOWING INDUSTRIES:
COMMERCIAL BUILDING / HOSPITALS / DATA CENTERS / MUSEUMS / FOOD & PHARMA Industries ; etc.**

Filter Standard Chart

Type	Filter Cl	EU Classifications	MERV	Average Efficiency @ 0.3 μ	Efficiency %
Filters Coarse Dust	G1	EU-1	MERV 1-4	N/A	Rod Filters
	G2	EU-2		N/A	85% down to 20 μ
	G3	EU-3	MERV 5-6	N/A	90% down to 20 μ
	G4	EU-4	MERV 7-8	N/A	90% down to 10 μ
Filters for Fine Dust	F5	EU-5	MERV 9-10	N/A	95% down to 5 μ
	F6	EU-6	MERV 11-12	N/A	99.9% down to 5 μ
	F7	EU-7	MERV - 13	N/A	99% down to 3 μ
	F8	EU-8	MERV - 14	N/A	99.9% down to 3 μ
	F9	EU-9	MERV - 15	N/A	50% down to 0.3 μ
Filters For Microparticles	H 10	EU-10	MERV - 16	85%	85% down to 0.3 μ
	H 11	EU-11	MERV - 17	95%	95% down to 0.3 μ
HEPA Filters	H 12	EU-12	MERV - 18	99.50	99.5% down to 0.3 μ
	H 13	EU 13	MERV - 19	99.95	99.97% down to 0.3 μ
	H14	EU 14	MERV - 20	99.995	99.99% down to 0.3 μ
ULPA Filters	H 15	EU 15	N/A	99.9995%	99.999% down to 0.3 μ
	H 16	EU 16	N/A	99.99995%	N/A
	H17	EU 17	N/A	99.999995%	N/A

ACTIVATED CARBON / CHEMICAL AIR FILTERS TO REMOVE TOXIC GASES AND ODOURS

S.No.	Types of Filters	Filter media	Types of Pollutants	Area's where Filters are Suitable
1.	Filters With Activated carbon (Loose or Laminated type)	Activated Carbon (Non-Impregnated) 	<ul style="list-style-type: none"> ❖ Light Hydrocarbon VOC's ❖ Butane, Tar, Petrol and Kerosene ❖ Vapours from Solvent ❖ Body, Hospital Odours, Cigarette Smokes ❖ Food, Kitchen and Animal Room 	<ul style="list-style-type: none"> ❖ Separation of odours in the Airport, Office & Administration Building, Hotels, Hospitals, ❖ IAQ Improvement ❖ Filtrations of Inlet air in Microelectronics ❖ Elimination of Harmful Gaseous vapours from circulating Air
2.	Chemical Filters For Specific Gas Adsorption	Impregnated Activated Carbon and Other Mixture of Chemical Media 	<ul style="list-style-type: none"> ❖ Acidic Trace Acid ❖ SOx, NOx, NO2 ❖ HCL, H2SO4, H2S, HF, Cl2 ❖ Amines ❖ NH3, NH4 ❖ Formaldehyde ❖ Ozone etc 	<ul style="list-style-type: none"> ❖ Inlet Air Filtrations for controls Data and Computer Rooms ❖ Inlet and Circulating air filters for microelectronics ❖ Inlet and Circulating air filters for Museums, Hospital, Archives, Libraries ❖ Refineries, Nuclear Power stations etc

FILTER CLASSIFICATIONS ACCORDING TO ISO 16890

ISO ePM1

ePM1 95%
ePM1 90%
ePM1 85%
ePM1 80%
ePM1 75%
ePM1 70%
ePM1 65%
ePM1 60%
ePM1 55%
ePM1 50%

Requirement

≥50% Initial Efficiency
<50% Discharged Efficiency

ISO ePM2,5

ePM2,5 95%
ePM2,5 90%
ePM2,5 85%
ePM2,5 80%
ePM2,5 75%
ePM2,5 70%
ePM2,5 65%
ePM2,5 60%
ePM2,5 55%
ePM2,5 50%

Requirement

≥50% Initial Efficiency
<50% Discharged Efficiency

ISO ePM10

ePM10 95%
ePM10 90%
ePM10 85%
ePM10 80%
ePM10 75%
ePM10 70%
ePM10 65%
ePM10 60%
ePM10 55%
ePM10 50%

Requirement

≥50% Initial Efficiency
<50% Discharged Efficiency

ISO Coarse

ePM10 45%
ePM10 40%
ePM10 35%
ePM10 30%
ePM10 25%
ePM10 20%
ePM10 15%
ePM10 10%
ePM10 5%

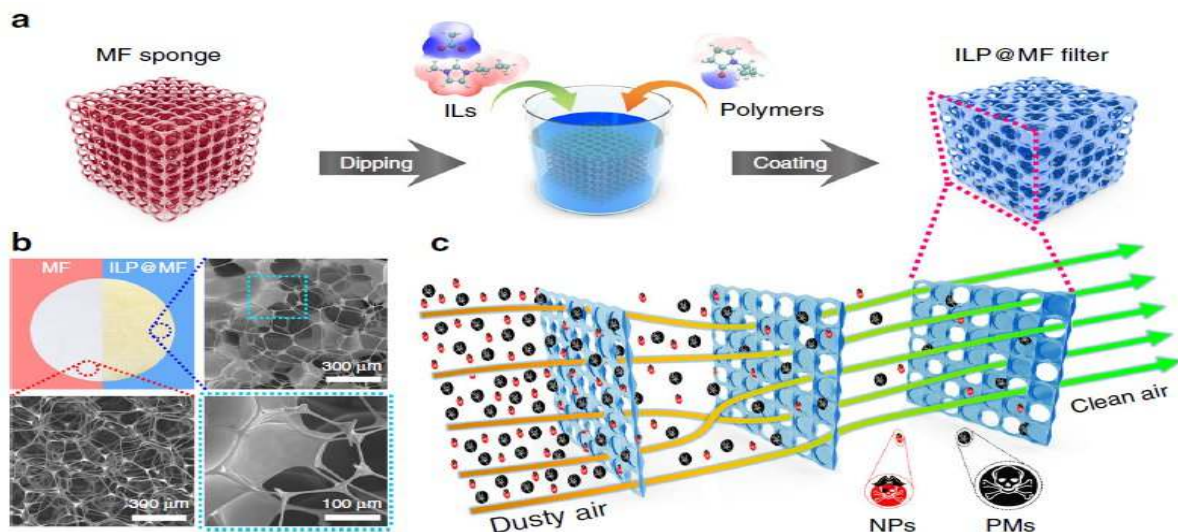
No discharge requirement

- » EN779:2012 Only for one size particles – 0.4 μm
- » ISO 16890 Filter efficiency is measured by using range of Particle sizes :
 - 0.3 – 10 μm
 - 0.3 to 2.5 μm
 - 0.3 – 1 μm

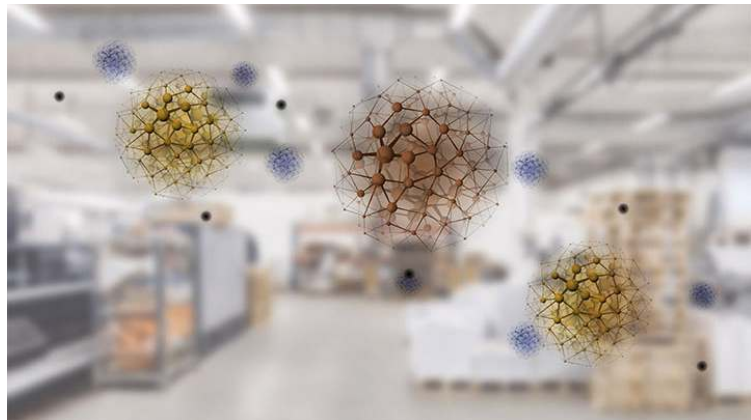
Example of filter making according to ISO 16890

- » ePM1 55% - filter minimum efficiency in group ePM1 is more than 50% and average efficiency is in 55-59%
- » ePM10 60% - average efficiency is in range 60-64%. ePM10 group does not have requirement for minimum efficiency of 50%

S.No.	Filter Group	Particulate Size (μm)	Classification Criteria
1	ISOePM1	0.3<x<1	Min. Efficiency >50%
2	ISOePM2.5	0.3<x<2.5	Min. Efficiency >50%
3	ISOePM10	0.3<x<10	Avg. Efficiency >50%
4	ISO Coarse	0.3<x<20	Avg. Efficiency >50%



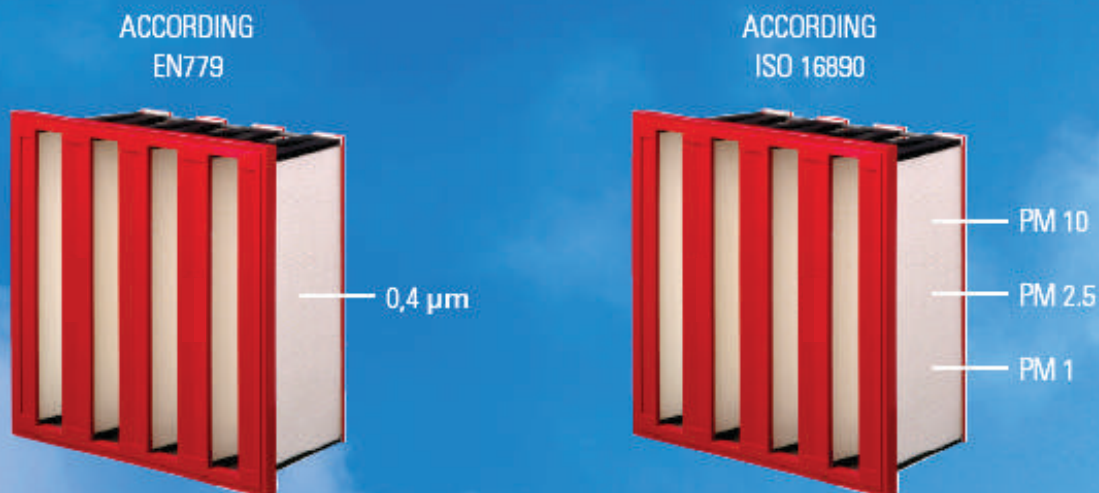
HOW YOUR BUSINESS CAN BENEFIT FROM THE ISO 16890 AIR FILTER STANDARD?



Optical particle diameter size ranges for the definition of the efficiencies, ePM₁

- » The ISO 16890 air filtration standard is the new global classification and testing standard for air cleaning systems
- » Protecting the health of humans.
- » Filters are built to reduce the number of airborne particles, of different sizes, thereby improving an Indoor Air
- » Less PM as well as bacteria, germs and spores, fumes and mist circulating in our workplace, employees will enjoy greater workplace well-being, resulting in greater levels of productivity
- » In addition, there will be fewer process and equipment problems (caused by contamination) as well as less of a need for cleaning

FILTERS ACCORDING TO EN 779: 2012 AND ISO 16890 STANDARDS



For example : According to the test result, the F8 class V-Compact Filter is classified as “ISO ePM1 70%”. This means that the filter separates 70 % of PM1 particles. The “e” stands for efficiency in combination with the particulate matter (PM).

Classification according to EN779	Particulate Matter Efficiency (%)			Classification according to ISO 16890
	ISO ePM1	ISO ePM2.5	ISO ePM10	
F8	73	80	93	ISO ePM1 70%

WE FOLLOW ISO 16890 / EN -779 STANDARDS FOR COARSE, PRE & FINE FILTER



Relation Between ASHRAE 52.2, EN779 and ISO 16890					
ASHRAE 52.2	EN779	ISO ePM1	ISO ePM2.5	ISO ePM10	ISO Coarse
MERV 5	G3	-	-	-	>80%
MERV 7	G4	-	-	-	>90%
MERV 8-9	M5	-	-	>50%	-
MERV 10-12	M6	-	50-60%	>60%	-
MERV 13	F7	50-65%	65-80%	>85%	-
MERV 14	F8	65-80%	>80%	>90%	-
MERV 15	F9	>80%	>95%	>95%	-
Typical Control Contaminants'		Particle size within 0.3 μm -1.0 μm , All bacteria, Cooking oil, Most smoke, Copier toner, Most face powder, Most paint pigments	Particle Size within 1.0 μm — 3.0 μm , Lead dust, Milled flour, Coal dust, Auto emissions, Nebulizer drop, Welding fumes	Particle size within 3.0 μm -10.0 μm , Mold Spores, Hair spray, Cement dust, Snuff, Powdered milk	Particle > 10.0 μm , Pollen, Dust mites, Sanding dust, Spray paint dust, Textile Fibers
Application		IAQ concerned commercial, industrial, medical, food etc	IAQ concerned commercial & industrial, medical	Commercial, industrial, paint shop	Gross filter, domestic and commercial

EN 779-2012 STANDARD

EN 779-2012 Classifications					
Group	Filter Class	Final Pressure Drop (Pa)	Avg. Arrestance (Am) of Synthetic Dust %	Avg. Arrestance (Em) of 0.4 μm particles %	Minimum Arrestance for 0.4 μm particles %
Coarse	G1	250	50 \leq Am<65	-	-
	G2	250	65 \leq Am<80	-	-
	G3	250	80<_Am<90	-	-
	G4	250	90<_Am	-	-
Medium	M5	450	-	40 \leq Em \leq 60	-
	M6	450	-	60 \leq Em \leq 80	-
Fine	F7	450	-	80 \leq Em \leq 90	35
	F8	450	-	90 \leq Em \leq 95	55
	F9	450	-	95 \leq Em	70

Filters 10 Micron	09
Bag Filters 10 Micron	10
Aluminium Wire Mesh Metallic Filters	11
Fine Filters 5 Micron	12
Fine Filters 3 Micron	13
Fine Filters 1 Micron	14
Semi Hepa Filters	15
Hepa Filters	16
High Flow Hepa Filters	17
Mini Pleat Hepa Filters	18
Mini Pleat Gel Seal Hepa Filters	19
Filters Housing With Grill	20
Knife Edge Housing	21
OT Plenum	22
Hepa Filters & Terminal Housing	23

FILTERS 10 MICRON



FILTER CLASS AS PER ISO-16890/EN:779	
FILTER CLASS	ePM 10
ISO COARSE/G-4	< 50%

Filter Class	MO	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness	Testing Standard
G-4	Aluminium Extrusion/GI	MERV-8	EU-4	25	3 MM	BS EN:779
		MERV-8	EU-4	50	3 MM	BS EN:779

● FILTER CLASS: EU-4

SBRG Clean Tech Pre Filters are manufactured in accordance with BS EN 779 and are used to remove solid particles of media ≥ 10 Micron from the air stream entering the ventilation system.

Media: 100 % washable non woven Synthetic media supported by Aluminium. Mesh on one side & finishes with HDPE mesh on the other side.

● FEATURES:

- Tested according to EN:779.
- Light weight & robust construction.
- Available in wide variety of sizes.
- Low pressure drop.
- 100 % washable.
- Long service life.

● APPLICATIONS:

- For Pre filtration for air conditioning & Air Handling Units.
- General Air Filtration & Pre Filtration for various equipments.
- For maintaining indoor air quality.

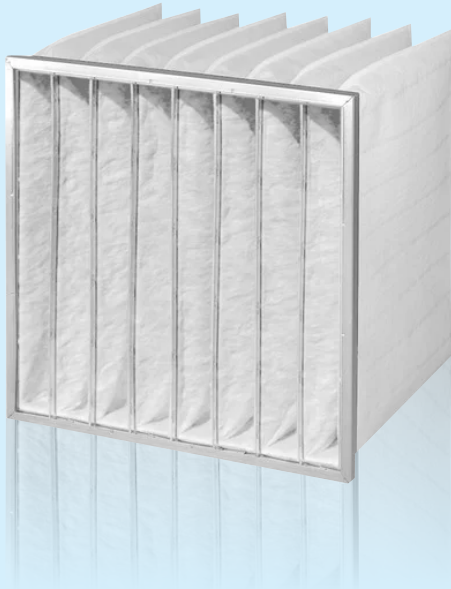


TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%	Pa	Pa	P	°C
610 X 610 X 25m	1000	90% @ 10 Micron	40	1	500	70
610 X 305 X 25m	500	90% @ 10 Micron	4	150	500	70
305 X 305 X 25m	250	90% @ 10 Micron	4	150	500	70
610 X 610 X 50m	2000	90% @ 10 Micron	4	150	500	70
610 X 305 X 50m	1000	90% @ 10 Micron	4	150	500	70
305 X 305X 50m	500	90% @ 10 Micron	4	150	500	70

• Also Available in High Temperature. • Special dimensions can be customized.

BAG FILTERS 10 MICRON



FILTER CLASS AS PER ISO-16890/EN:779	
FILTER CLASS	ePM10
ISO COARSE/G-4	< 50%

Filter Class	MOC	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness	Testing Standard
G-4	Aluminium	MERV-8	EU-4	25	3 MM	BS EN:779
	Extrusion/GI	MERV-8	EU-4	50	3 MM	BS EN:779

● FILTER CLASS: EU-4

SBRG Clean Tech Bag Type OR Pocket filters are constructed from fine Synthetic filter media & assembled in Aluminium frame. In order to prevent any possible leakage, the entire stitching is sealed with thermo plastic resins. Clinching is done in order to join pockets for desired size & airflow.
Media: Synthetic non woven.

● FEATURES:

- Tested according to EN:779
- High Dust Holding Capacity.
- Long Service Life.
- Cleanable by compressed air.

● APPLICATIONS:

- General filtration for air conditioning & Air Handling Units.
- In commercial & industrial applications.
- As a medium filter in clean room filtration.



TECHNICAL PARAMETERS

Filter Size	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
	%	Pa	Pa	Pa	°C
610 X 610 X 300 mm	90% @ 10 Micron	≤ 60	250	1000	70
610 X 305 X 300 mm	90% @ 10 Micron	≤ 60	250	1000	70
305 X 305 X 300 mm	90% @ 10 Micron	≤ 60	250	1000	70
610 X 610 X 600 mm	90% @ 10 Micron	≤ 60	250	1000	70
610 X 305 X 600 mm	90% @ 10 Micron	≤ 60	250	1000	70
305 X 305 X 600 mm	90% @ 10 Micron	≤ 60	250	1000	70

• Also Available in High Temperature. • Special dimensions can be customized.

ALUMINIUM WIRE MESH METALLIC FILTERS



● GREASE COLLECTOR FILTERS

SBRG Clean Tech metallic filters are designed to meet requirement of kitchen application. They may be applied to all environment where food is prepared & high amount of oil, metallic filtes & other greases are common. Those particles are absorbed by steam which will be drawn off by our metallic filters.

Media: 7 Layers of Alu. Wire mesh interspaced with three crumpled layers & 4 flat layers.

● FEATURES

- Easy to clean.
- Robust metal frame
- Large cooling surface
- Long service life

● APPLICATIONS

- Kitchen application.
- Exhaust of oil & grease.



TECHNICAL PARAMETERS

Parameters	Units	Filter Sizes		
		610 X 610	457 X 457	305 X 305
Frame depth	MM	25 50 100	25 50 100	25 50 100
IPD	Pa	30-40	30-40	30-40
Efficiency As Per EN: 779	%	80-85% @ 20 Micron	80-85% @ 20 Micron	80-85 % @ 20 Micron
Recommended FPD	Pa	250	250	250
Max. Pressure	Pa	1000	1000	1000
Temperature Resistance*	0°C	70	70	70
Rel. Humidity	%	100%	100%	100%

• Also Available in High Temperature. • Special dimensions can be customized.

FINE FILTERS 5 MICRON



FILTER CLASS AS PER ISO-16890/EN:779			
FILTER CLASS	ePM1	ePM2.5	ePM10
M5	< 20%	< 40%	>50%

Filter Class	MOC	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness	Testing Standard
F-5	Aluminium /GI	MERV- 9-10	EU-5	150	3 MM	BS EN:779
		MERV- 9-10	EU-4	300	3 MM	BS EN:779

● FILTER CLASS: EU-5

SBRG Clean Tech Fine Filters are manufactured in accordance with BS EN 779 & are used to remove solid particles such as dust, pollen, mould & bacteria from the air.

Media: 100 % washable Synthetic non woven Synthetic media supported by Aluminium mesh on one side & finishes with HDPE mesh on the other side

● FEATURES:

- Tested according to EN:779
- High Dust Holding Capacity.
- Long Service Life.
- 100% water washable.

● APPLICATIONS:

- General filtration for air conditioning & Air Handling Units.
- General Air Filtration & Pre Filtration for Hepa Filters.
- Spray Booths



TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%	Pa	Pa	Pa	°C
610 X 610 X 300 mm	2000	95% @ 5 Micron	60-70	190-200	500	70
610 X 305 X 300 mm	1000	95% @ 5 Micron	60-70	190-200	500	70
305 X 305 X 300 mm	500	95% @ 5 Micron	60-70	190-200	500	70
610 X 610 X 150 mm	1000	95% @ 5 Micron	60-70	190-200	500	70
610 X 305 X 150 mm	500	95% @ 5 Micron	60-70	190-200	500	70
305 X 305 X 150mm	250	95% @ 5 Micron	60-70	190-200	500	70

- Also Available in High Temperature.
- Special dimensions can be customized.

FINE FILTERS 3 MICRON



FILTER CLASS AS PER ISO-16890/EN:779			
FILTER CLASS	ePM1	ePM2.5	ePM10
F7	50-75%	< 70%	>80%

Filter Class	MOC	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness	Testing Standard
F-7	Aluminium /GI	MERV- 13	EU-7	150	3 MM	BS EN:779
		MERV- 13	EU-7	300	3 MM	BS EN:779

● FILTER CLASS: EU-7

SBRG Clean Tech Fine Filters are manufactured in accordance with BS EN 779 & are used to remove solid particles such as dust, pollen, mould & bacteria from the air.

Media: 100 % washable Synthetic non woven media supported by Aluminium mesh on one side & HDPE mesh on the other side.

● Features:

- Tested according to EN:779
- High Dust Holding Capacity
- Long Service Life
- 100% water washable

● Applications:

- General filtration for air conditioning & Air Handling Units
- In commercial & industrial applications
- Spray Booths



TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%	Pa	Pa	Pa	°C
610 X 610 X 300 mm	2000	99% @ 3 Micron	80-90	200-220	500	70
610 X 305 X 300 mm	1000	99% @ 3 Micron	80-90	200-220	500	70
305 X 305 X 300 mm	500	99% @ 3 Micron	80-90	200-220	500	70
610 X 610 X 150 mm	1000	99% @ 3 Micron	80-90	200-220	500	70
610 X 305 X 150 mm	500	99% @ 3 Micron	80-90	200-220	500	70
305 X 305 X 150 mm	250	99% @ 3 Micron	80-90	200-220	500	70

- Also Available in High Temperature.
- Special dimensions can be customized.

FINE FILTERS 1 MICRON



FILTER CLASS AS PER ISO-16890/EN:779			
FILTER CLASS	ePM 1	ePM2.5	ePM 10
F9	85%	< 90%	>95%

Filter Class	MOC	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness
F-9	Aluminium Anodised	MERV- 15	EU-9	300	5 MM

● FILTER CLASS: EU-9

SBRG Clean Tech Fine Filters are manufactured in accordance with BS EN 779 & are used to remove solid particles such as dust, pollen, mould & bacteria from the air.

Media: 100 % washable Synthetic non woven media supported by Aluminium mesh on one side & finished with HDPE mesh on the other side.

● FEATURES:

- Tested according to EN:779
- High Dust Holding Capacity
- Very Fine filtration up to 1 Micron particle size
- Long Service Life
- 100% water washable

● APPLICATIONS:

- General filtration for air conditioning & Air Handling Units
- General Air Filtration & Pre Filtration for Hepa Filters
- Spray Booths



TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%	Pa	Pa	Pa	°C
610 X 610 X 300 mm	2000	99% @ 1 Micron	90-100	200-220	500	70
610 X 305 X 300 mm	1000	99% @ 1 Micron	90-100	200-220	500	70
305 X 305 X 300 mm	500	99% @ 1 Micron	90-100	200-220	500	70
610 X 610 X 150 mm	1000	99% @ 1 Micron	90-100	200-220	500	70
610 X 305 X 150 mm	500	99% @ 1 Micron	90-100	200-220	500	70
305 X 305 X 150 mm	250	99% @ 1 Micron	90-100	200-220	500	70

- Also Available in High Temperature. • Special dimensions can be customized.

SEMI HEPA FILTERS

FILTER CLASS: F-9

SBRG Clean Tech Semi Hepa Filters are manufactured as per the standards of efficiency set by the United States Department of Energy (DOE) & are in accordance with the European Standards EN: 779.

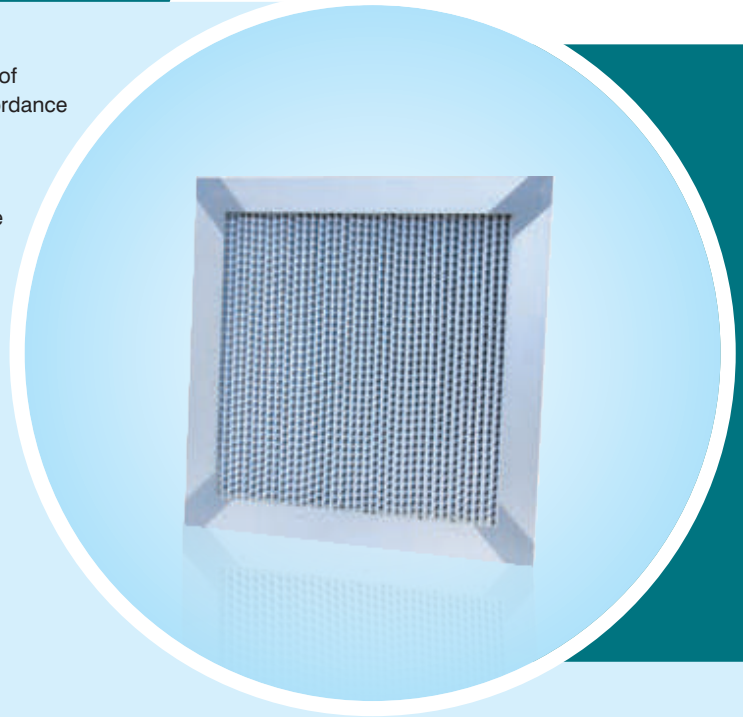
High air purity is the essential requirement for sensitive controlled technical process. Clean rooms are used as they ensure low-particle or when necessary, a low-germ environment. Semi hepa filters are used to achieve the required filtration class as set by WHO & cGMP.

FEATURES:

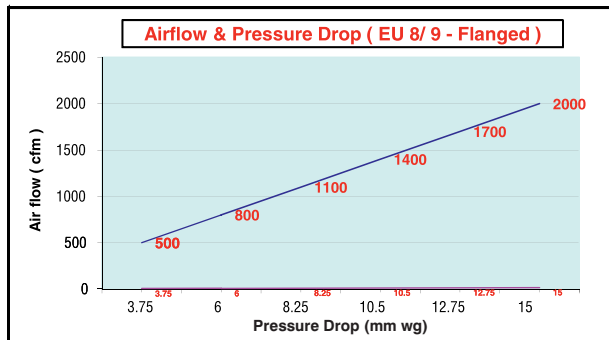
- Tested According to EN: 779
- High Filter Efficiency.
- High Dust Holding Capacity
- Long Service Life.
- Large Surface for Filtration.

APPLICATION:

- In sophisticated industrial process (Pharmaceuticals, Biotechnology, chemical, optics, food, microelectronics, etc).
- In Clean room for achieving the desired class.
- In Laminar Air Flow for bacteria free air circulating system.
- In hospitals, pharmaceuticals, labs, research centres etc.

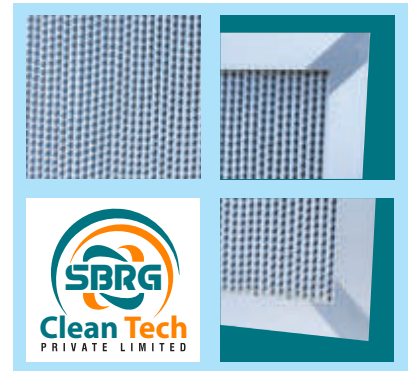


Filter Class	MOC	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness
F-9	Aluminium Anodised	MERV-15	EU-9	300	5 MM



Airflow / Pressure Drop of EU8/9 (Flanged)
Filter size 610*610* 300mm

Air flow (Cfm)	Pressure Drop (mm wg)
500	3.75
800	6
1100	8.25
1400	10.5
1700	12.75
2000	15



* The pressure Drop can vary \pm 10 -15%

SEMI HEPA FILTERS TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%	Pa	Pa	Pa	°C
610 X 610 X 300 mm	2000	50% @ 0.3 Micron	150	400	1000	70
610 X 305 X 300 mm	1000	50% @ 0.3 Micron	150	400	1000	70
305 X 305 X 300 mm	500	50% @ 0.3 Micron	150	400	1000	70
610 X 610 X 150 mm	1000	50% @ 0.3 Micron	150	400	1000	70
610 X 305 X 150 mm	500	50% @ 0.3 Micron	150	400	1000	70
305 X 305 X 150 mm	250	50% @ 0.3 Micron	150	400	1000	70

• Also Available in High Temperature. • Special dimensions can be customized.

HEPA FILTERS

FILTER CLASS: H-13

SBRG Clean Tech high-efficiency particulate air (HEPA) Filters are manufactured as per the standards of efficiency such as those set by the United States Department of Energy (DOE) & are in accordance with the European Standards EN: 1822.

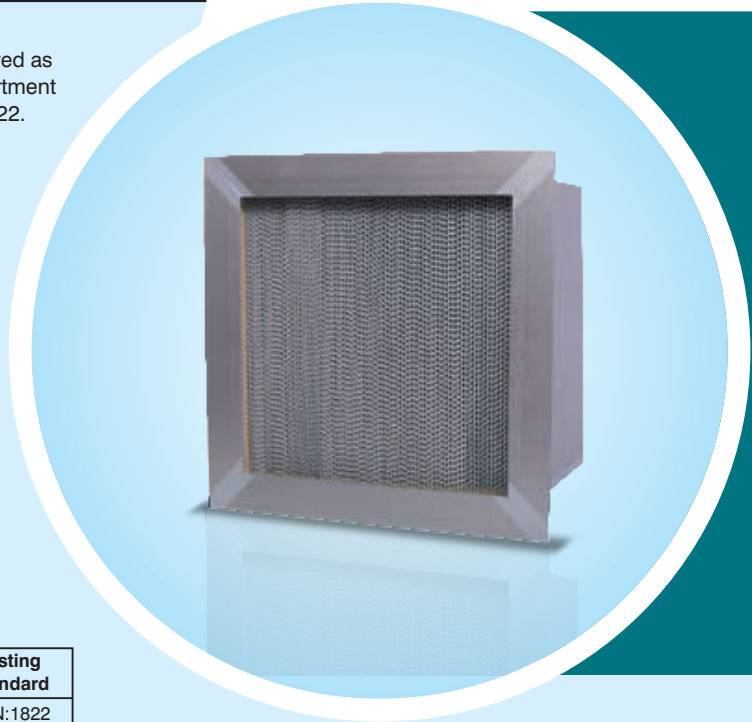
High air purity is the essential requirement for sensitive controlled technical processes. Clean rooms are used as they ensure a low-particle or, when necessary, a low-germ environment. Hepa filters are used to achieve the required filtration class as set by WHO & cGMP.

FEATURES:

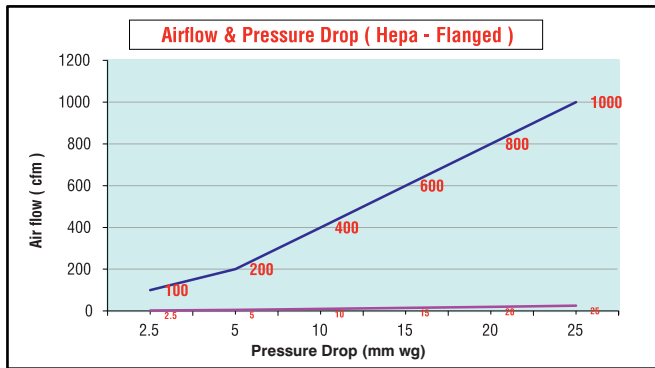
- Tested According to EN: 1822
- High Filter Efficiency.
- High Dust Holding Capacity
- Long Service Life.
- Large Surface for Filtration.

APPLICATION:

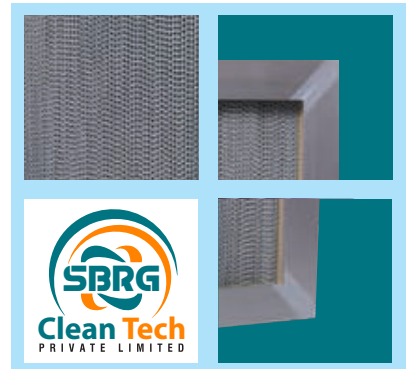
- In sophisticated industrial process (Pharmaceuticals, Biotechnology, chemical, optics, food, microelectronics, etc).
- In Clean room for achieving the desired class.
- In Laminar Air Flow for bacteria free air circulating system.
- In hospitals, pharmaceuticals, labs, research centres etc.



Filter Class	MOC	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness	Testing Standard
H-13/ H-14	Aluminium Anodised	MERV-19	EU-13/ EU-14	150	5 MM	BS EN:1822
		MERV-19	EU-13/ EU-14	300	5 MM	BS EN:1822



Airflow / Pressure Drop of Hepa (Flanged)	
Filter size 610*610* 300mm	
Air flow (Cfm)	Pressure Drop (mm wg)
100	2.5
200	5
400	10
600	15
800	20
1000	25



* The pressure Drop can vary \pm 10 -15%

HEPA FILTERS TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%	Pa	Pa	Pa	°C
610 X 610 X 300 mm	1000	99.97% @ 0.3 Micron	250	600	1000	70
610 X 305 X 300 mm	500	99.97% @ 0.3 Micron	250	600	1000	70
305 X 305 X 300 mm	250	99.97% @ 0.3 Micron	250	600	1000	70
610 X 610 X 150 mm	500	99.97% @ 0.3 Micron	250	600	1000	70
610 X 305 X 150 mm	250	99.97% @ 0.3 Micron	250	600	1000	70
305 X 305 X 150 mm	125	99.97% @ 0.3 Micron	250	600	1000	70

• Also Available in High Temperature. • Special dimensions can be customized.

HIGH FLOW HEPA FILTERS

FILTER CLASS: H-13

SBRG Clean Tech high-efficiency particulate air (HEPA) Filters are manufactured as per the standards of efficiency set by the United States Department of Energy (DOE) & are in accordance with the European Standards EN: 1822.

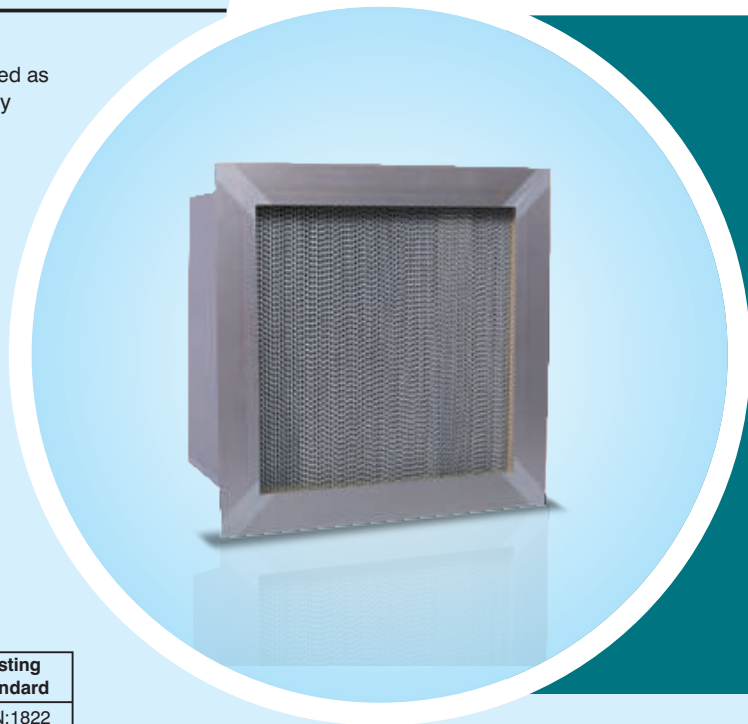
High air purity is the essential requirement for sensitive controlled technical processes. Clean rooms are used as they ensure a low-particle or, when necessary, a low-germ environment. Hepa filters are used to achieve the required filtration class as set by WHO & cGMP.

FEATURES:

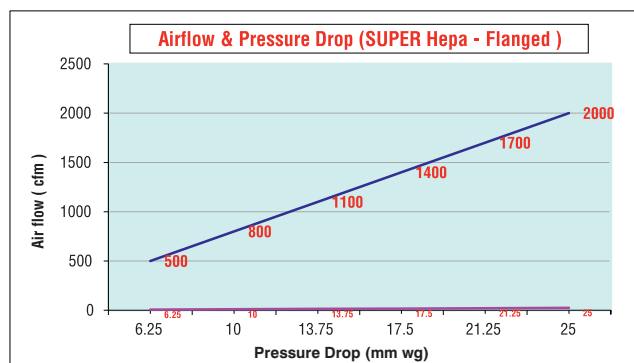
- Tested According to EN: 1822
- High Filter Efficiency.
- High Dust Holding Capacity
- Long Service Life.
- Large Surface for Filtration.

APPLICATION:

- In sophisticated industrial process (Pharmaceuticals, Biotechnology, chemical, optics, food, microelectronics, etc).
- In Clean room for achieving the desired class.
- In Laminar Air Flow for bacteria free air circulating system.
- In hospitals, pharmaceuticals, labs, research centres etc.



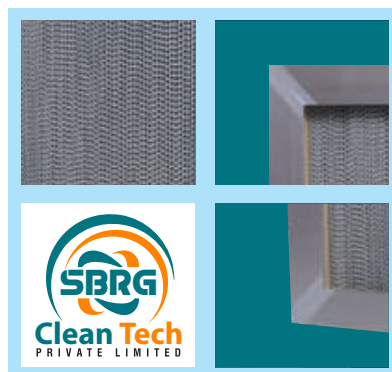
Filter Class	MOC	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness	Testing Standard
H-13/ H-14	Aluminium Anodised	MERV-19	EU-13/ EU-14	150	5 MM	BS EN:1822
		MERV-19	EU-13/ EU-14	300	5 MM	BS EN:1822



Airflow / Pressure Drop of SUPER Hepa (Flanged)

Filter size 610*610* 300mm

Air flow (Cfm)	Pressure Drop (mm wg)
500	6.25
800	10
1100	13.75
1400	17.5
1700	21.25
2000	25



* The pressure Drop can vary \pm 10 -15%

HIGH FLOW HEPA FILTERS TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%				
610 X 610 X 300 mm	2000	99.97% @ 0.3 Micron	250	600	100	70
610 X 305 X 300 mm	1000	99.97% @ 0.3 Micron	250	600	1000	70
305 X 305 X 300 mm	500	99.97% @ 0.3 Micron	250	600	100	70
610 X 610 X 150 mm	1000	99.97% @ 0.3 Micron	250	600	1000	70
610 X 305 X 150 mm	500	99.97% @ 0.3 Micron	250	600	1000	70
305 X 305 X 150 mm	250	99.97% @ 0.3 Micron	250	600	1000	70

• Also Available in High Temperature. • Special dimensions can be customized.

MINI PLEAT HEPA FILTERS

FILTER CLASS: H-14

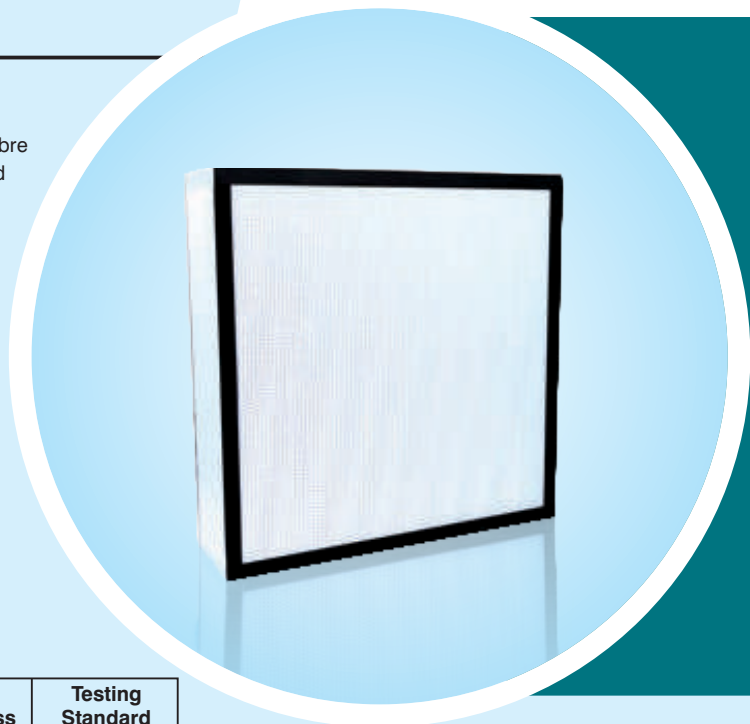
SBRG Clean Tech Mini pleat filters are made by very fine high efficiency micro fibre glass paper media interspaced with hot melt pleating & enclosed in Al. Extruded sections. The mini pleat technique applied ensures uniform flow.

FEATURES:

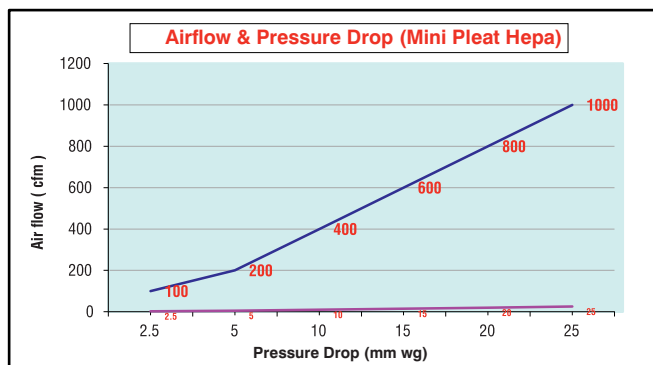
- Tested According to EN: 1822
- High Filter Efficiency.
- High Dust Holding Capacity
- Long Service Life.
- Large Surface for Filtration.

APPLICATION:

- In sophisticated industrial process (Pharmaceuticals, Biotechnology, chemical, optics, food, microelectronics, etc).
- In Clean room for achieving the desired class.
- In Laminar Air Flow for bacteria free air circulating system.
- In hospitals, pharmaceuticals, labs, research centres etc.



Filter Class	MOC	MERV Rating	Filter Eurovent Class	Frame Depth	Gasket Thickness	Testing Standard
H-13/ H-14	Aluminium Anodised	MERV-19	EU-13/ EU-14	75	5 MM	BS EN:1822
		MERV-19	EU-13/ EU-14	110	5 MM	BS EN:1822



Airflow / Pressure Drop of Hepa Filter size 610*610*100mm	
Air flow (Cfm)	Pressure Drop (mm wg)
100	2.5
200	5
400	10
600	15
800	20
1000	25



* The pressure Drop can vary \pm 10 -15%

MINI PLEAT HEPA FILTERS TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%	Pa	Pa	Pa	°C
610 x 610 X 69 mm	500	99.99% @ 0.3 Micron	150	600	1000	70
610 x 305 X 69 mm	250	99.99% @ 0.3 Micron	150	600	1000	70
457 X 457 X 69 mm	280	99.99% @ 0.3 Micron	150	600	1000	70
305 x 305 X 69 mm	125	99.99% @ 0.3 Micron	150	600	1000	70
610 X610 X 100 mm	1000	99.99% @ 0.3 Micron	250	600	1000	70
610 X305 X 100 mm	500	99.99% @ 0.3 Micron	250	600	1000	70
457 X457 X 100 mm	550	99.99% @ 0.3 Micron	250	600	1000	70
305 X305 X 100 mm	250	99.99% @ 0.3 Micron	250	600	1000	70

• Also Available in High Temperature. • Special dimensions can be customized.

MINI PLEAT GEL SEAL HEPA FILTERS

FILTER CLASS: H-13/ H-14

SBRG Clean Tech Mini pleat Gel seal filters are advanced version of conventional Mini pleat filters in which gasket is replaced by silica gel which ensures 0% leakage from the sides/ flanges. Made by very fine high efficiency micro fiber glass paper media interspaced with hot melt pleating & enclosed in Al. Extruded sections.

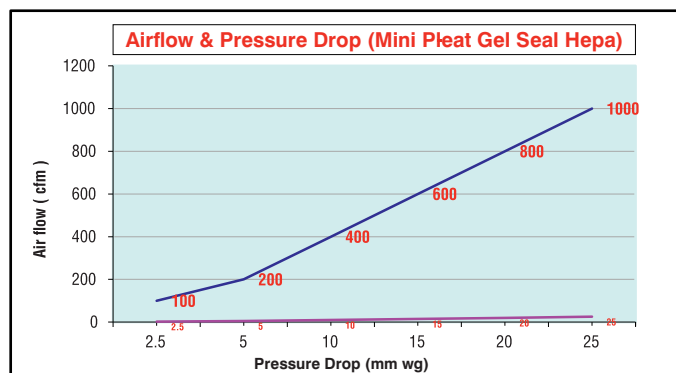
FEATURES:

- Tested According to EN: 1822
- High Filter Efficiency.
- High Dust Holding Capacity
- Long Service Life.
- Large Surface for Filtration.
- 0% chances of air leakage.

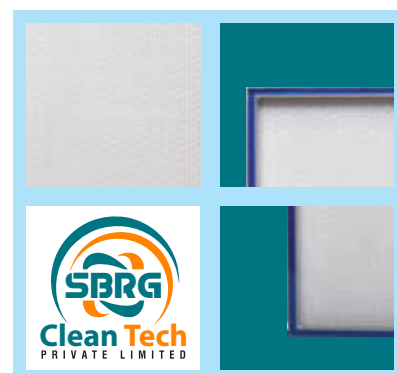
APPLICATION:

- In sophisticated industrial process (Pharmaceuticals, Biotechnology, chemical, optics, food, microelectronics, etc).
- In Clean room for achieving the desired class.
- In Laminar Air Flow for bacteria free air circulating system.
- In hospitals, pharmaceuticals, labs, research centres etc.

Filter Class	MERV Rating	Filter Eurovent Class	Frame Depth	Testing Standard
H-13/ H-14	MERV-19	EU-13/ EU-14	105	BS EN:1822
	MERV-19	EU-13/ EU-14	149	BS EN:1822



Airflow / Pressure Drop of Hepa Filter size 610*610*105mm	
Air flow (Cfm)	Pressure Drop (mm wg)
100	2.5
200	5
400	10
600	15
800	20
1000	25

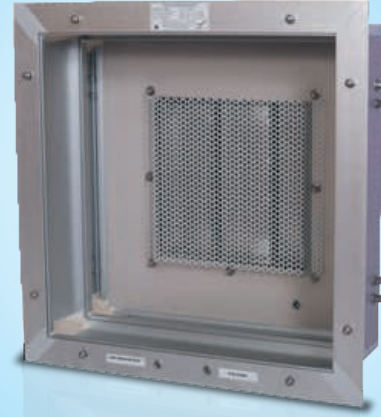
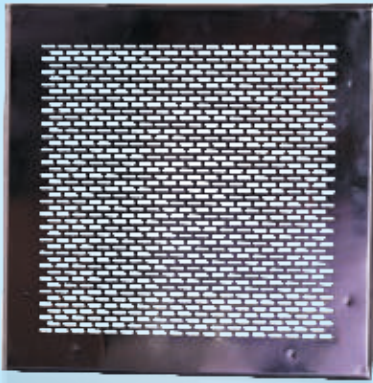


* The pressure Drop can vary \pm 10 -15%

MINI PLEAT GEL SEAL HEPA FILTER TECHNICAL PARAMETERS

Filter Size	CFM	Efficiency	IPD	Recommended FPD	Max. Pressure	Temperature Resistance
		%	Pa	Pa	Pa	°C
610 X 610 X 81 mm	500	99.99% @ 0.3 Micron	250	600	1000	70
450 X 450 x 81 mm	275	99.99% @ 0.3 Micron	250	600	1000	70
305 X 305 X 81 mm	125	99.99% @ 0.3 Micron	250	600	1000	70
610 x 610 X 105 mm	1000	99.99% @ 0.3 Micron	250	600	1000	70
450 X 450 X 105 mm	550	99.99% @ 0.3 Micron	250	600	1000	70
305 x 305 X 105 mm	250	99.99% @ 0.3 Micron	250	600	1000	70
610 x 610 X 135 mm	1600	99.99% @ 0.3 Micron	250	600	1000	70
450 X 450 X 135 mm	870	99.99% @ 0.3 Micron	250	600	1000	70
305 x 305 X 135 mm	400	99.99% @ 0.3 Micron	250	600	1000	70

- Special dimensions can be customized.



FILTERS HOUSING WITH GRILL

HOUSING FILTERS

SBRG Clean Tech Hepa Terminal Boxes are manufactured using fine metals as per the set standards of the industry. Terminal Boxes are available in a various material like MS powder Coated, GI Powder Coated, SS -304 Buffed Sheet Or Aluminium Powder Coated. The terminal boxes are designed for both false ceiling & Slab Mounting arrangement. Terminal boxes are equipped with DOP injection port, pressure differential ports & arrangement for holding perforation Grills or Swirl diffuser as per the requirement.

Each terminal box have provision to operate the damper from the clean room side (Bevel Gear Arrangement is also given on demand) or from the service floor as per the requirement.

FEATURES:

- Easy to install
- Superior finish
- Corrosion resistance
- Robustness
- Low noise

APPLICATION:

- Pharmaceuticals
- Electronic Industries
- Clean rooms for automobiles & food industries
- Nano Technology labs





KNIFE EDGE HOUSING

● SBRG Clean Tech CLEAN TECH'S KNIFE EDGE HOUSING

SBRG Clean Tech knife edge terminal boxes are manufactured using fine material as per the set standard of the industry. Knife edge terminals are used to install gel seal mini pleat hepa filters. Each terminal boxes are equipped with perforated diffusers inside the hood for air distribution. Terminal boxes have arrangement of installing/mounting on non-walkable & walkable false ceilings/slabs & can also be hanged from the ceiling. Terminal boxes can be top/bottom loading depending on the site situation & requirement.

For gel sealed filters, Aluminium extruded knife edge terminal boxes are used having arrangement for filter fixing from the clean room side & air entry from the top. Low leakage dampers are used to control the airflow passing through the filters.

● FEATURES:

- Easy to install. Compact size & low weight.
- Superior Finish & Corrosion resistant
- SS-304 Ports for Aerosol injection, upstream concentration & differential pressure measurement
- Aluminum extruded low leakage apposed blade aerofoil dampers.
- Worm Wheel arrangement for bottom operation of dampers
- Available in Top/Side connection.
- Filter Fixing & removing by means of Pressure plate/ Stud bolt arrangement.

● APPLICATION:

- Hospitals
- Pharmaceuticals
- Electronic Industries
- Nano technology Labs
- Clean rooms for automobiles, food & pharmaceutical industries



OT PLENUM



● LAMINAR AIR FLOW PLENUM

Laminar Air Flow plenum is used to create a sterile working area free of bacterial contamination generally located above the operation table & is made of Aluminium/ SS-304 Sheet for suitable strength. In case of Aluminium after the completion of initial fabrication, the plenum is cleaned & powder Coated to give additional protection & Aesthetic look. The Laminar Air Flow is designed in such a way so as to cover the entire operation table, sterile surgical equipments & doctors. Each Plenum is equipped with provision of fixing of HEPA Filters, DOP port (Required for HEPA filter integrity test) & built in dampers for controlling the air flow across the HEPA Filters. Provision for fixing the lights is also given if required. Double Skinned plenum is also available.

● STANDARD SIZES:

- 2400 mm X 2400 mm
- 2400 mm X 1800 mm
- 1800 mm X 1800 mm

● PERFORATED GRILLS:

SS-304 or Aluminium Powder Coated Perforated grills made from 16 Gauge Aluminium sheet is provided over the HEPA filter face to prevent it from physical damage.



TECHNICAL PARAMETERS

HEPA Filters (0.3 Microns)	
Efficiency	99.97 % down to 0.3 Micron / 99.99 % down to 0.3 Micron
IPD	25 mm WG / 15 mm of WG
FPD	65mm WG
Casing	Aluminium Frame
Media	Imported Submicronic Fiber Glass Paper Pleated with Corrugated Aluminium Separators
Eurovent Class	EU-13 / EU-14
Filter Class	H- 13 / H-14
MERV Rating	MERV - 19 / MERV-20
Temperature	Ambient
Gasket	Food Grade

• Also Available in High Temperature. • Special dimensions can be customized. Customised Sizes & CFM are also available

IN-HOUSE TESTING FACILITIES FOR HEPA FILTERS & TERMINAL HOUSING

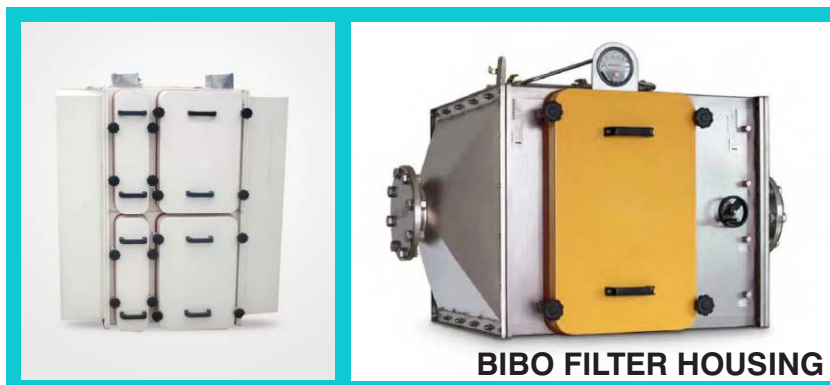


IN-HOUSE TESTING FACILITIES AS PER EN1822

- » HEPA Filter Efficiency » HEPA Housing Leakage
- » HEPA Filter Leakage » Low noise

BIBO HOUSING-TECHNICAL SPECIFICATION

- | | | |
|-----------------------|---|---|
| 1. MOC | : | SINGLE SKIN CRCA POWDER COATED
14G THK, CAM SHAFT ASSEMBLY IN SS-304 |
| 2. FINAL FILTER | : | HIGH FLOW HEPA FILTER BOX TYPE |
| 3. BAGS | : | FOOD GRADE PVC TRANSPARENT BAGS
3MTR LONG WITH SLEEVE AND SILICON CORD |
| 4. SEALING OF FILTERS | : | SS CAM LOCK ARRANGEMENT WITH ADJUSTMENT PREVISION. |





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