



**Clean
Room**




**HVAC
AHU**



**Air
Filter**



**Laboratory
Furniture**



**Modular
OT**



**SBRG
Clean Tech**

A Division of Brawn Group of Companies



BRAWN GROUP OF COMPANIES

BRAWN GROUP OF COMPANIES is offering a better life for the people across the globe. We offer healthcare solutions at the highest level to our customer. We are accredited global healthcare company, which is empowered by one of the leading pioneer in the healthcare industry **Mr. BR Gupta**, Managing Director.



B.R. Gupta
Managing Director

As a medical representative, the chasing of a big dream of serving the common man with quality medicines and anti-cancer drugs at affordable price was far from possible. What followed over the years has been the reward of sheer perseverance, passion, zeal and enthusiasm. This journey with its own ups and downs has reinforced my belief that 'Nothing is impossible', provided one religiously follows the core values- Focus, Quality, Unwavering Ethics, Transparency, Commitment and Customer Satisfaction, needless to say our strengths at **BRAWN**.

VISION

"To be leading strategic and research based global healthcare group creating comprehensive solution for treatment and management of illness with our medical formulations, products and services thereby creating better life across the globe."

MISSION

"To provide affordable research based quality formulations, products and services across the globe through research, innovation, development and collaborations."

OUR CORE STRENGTH



SBRG Clean Tech

SBRG Clean Tech was established to serve the clean room requirements of customer.

SBRG Clean Tech extensively used in hospitals, AHU, Air filters, Clean room & micro electric industries that require a sterile atmosphere.

Trusted Service | Fastest Delivery

www.sbrgcleantech.com

We Deliver What We Are

99% of The Projects Cleared The Final Stage Validation For GMP Certification

Over 10+ Projects US FDA Approved. Meeting The Highest Standards For Clean Room + HVAC Systems.

In-house Competency For Designing Cleanrooms, HVAC, Electrical, Bms & Fire-fighting Systems

On Time Execution For More Than 90% Projects, Delivering In Cost Effective Manner With World Class Certifications

Cleanroom

C a t a l o g u e



Turnkey Cleanroom Solutions

Cleanroom Equipment



Cleanroom Doors & Windows



Cleanroom Modular Wall & Ceiling Panels



Cleanroom HVAC & Validation



Cleanroom Electrical & Utilities



GI Powder Coated Cleanrooms

GMP modular panels are made up of GPSP GI sheet having lock formed quality (LFQ), minimal spangle with a zinc coating of 80-120 gsm. The panels are filled with an infill of polyurethane foam (PUF/ PIR), honeycomb paper core or high density mineral wool.



SBRG Clean Tech modular panels are pure polyester powder coated to 60-80 microns and 15-25% gloss level with below properties

- Inert and non particle shedding
- Resistance to abrasion and chemicals
- Thermal and sound insulation
- Corrosion protection
- Smooth bump free surface
- Better UV protection
- Easy cleaning and maintenance



Panel Width: 1205 mm,
1220 mm as standard

Panel Thickness: 50, 80,
100 mm as standard

Panel Height: up to 6000 mm
with provision of stacked
panels for higher applications

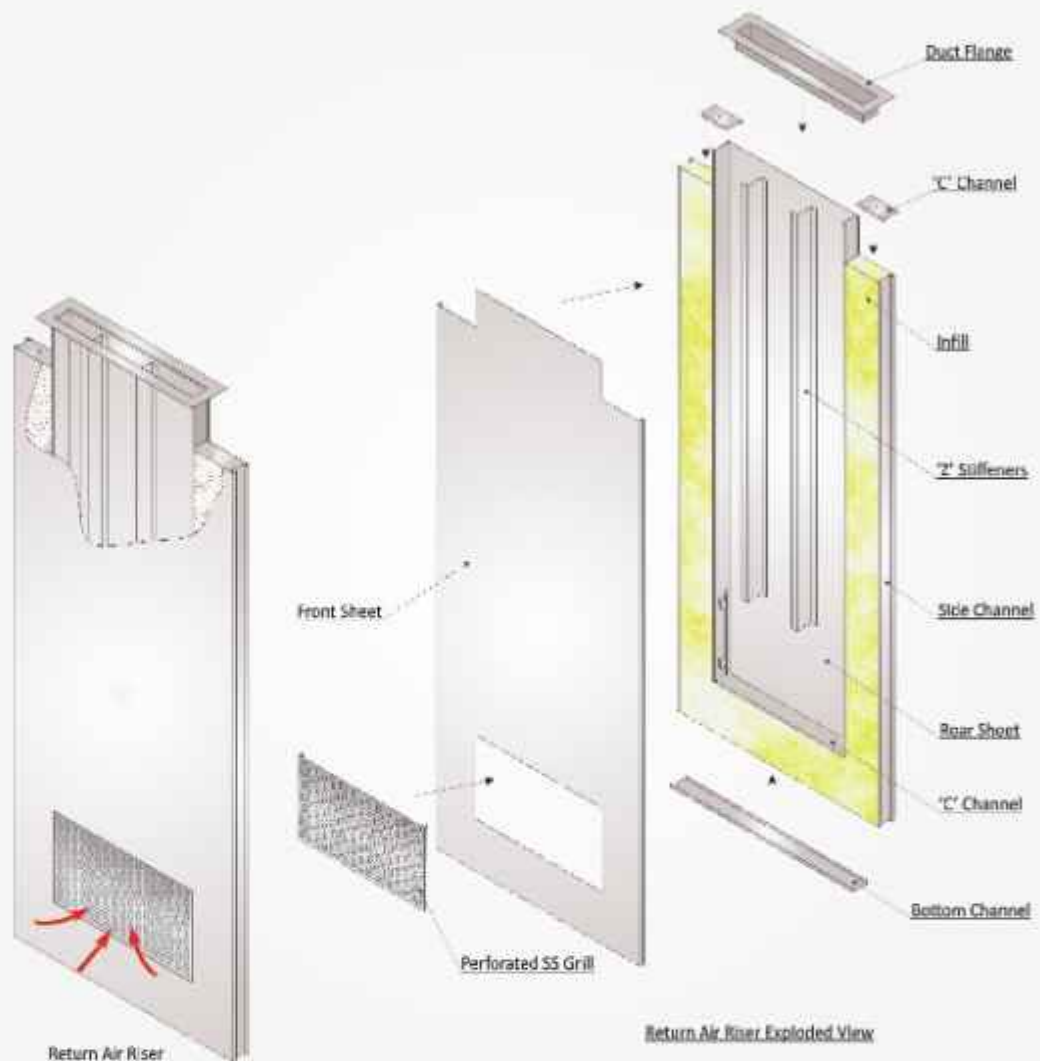
Panel connection: Friction
type interlocking key for
Speedy & Dismantling.

- Base Detail** : Raised type base to allow flush coved finish and C-type base
- View panel** : Viewing glass is an integral part of wall panel thus called view panel. It is made up of 5mm thick toughened glass duly flushed on both sides of wall panel
- Door** : Lock formed construction. Optional double and single glazed view with cleanroom compatible accessories
- Coving** : Powder coated aluminium coving. Press fit fixing arrangement with aluminium backing
- Return air -risers** : Return air riser is an integral part of wall panel. It is made by fabricating a duct of maximum 900 mm width in between panel and given 150 mm above ceiling projection. Perforated grill in powder coated GI or in SS 304 is also provided.
- Ceiling panel** : Walkable and non-walkable ceiling panels are made up of same method as wall panel but with stiffeners for additional strength
- Cutouts** : Factory made cutouts are provided as per required sizes and location with GI conduit for running cables. Ceiling cutouts could be with lip or without lip as per required design
- Sealant** : Food grade silicone sealant for minimizing air leakages

Return Air Riser Panels

FEATURES

- Corrosion Resistance & Low Maintenance
- Leak Proof Installation
- SS,GI/CRCA Powder Coated



We are manufacturing Return Air Rise panels. These panels have integrated suction area in modular panel which is developed to ensure leak proof installation. Our range of return air risers is extensively applied to overall appearances of cleaned rooms. Further, our range is renowned for high-end features such as corrosion resistance, curved corner at bottom and low maintenance. These panels are concealed Type, SS, GL/ CRCA Powder coated construction, with/ without front doors.

These panels have provision for installing of VCD for flow control. The Upper flange is for connection in ducts, calculated cutouts for suction area. It is Available with Grill, VCD, Filter, Filter sheets.



FEATURES

- Moisture Resistant
- Stain Resistant
- Rust Proof

Fire Retardant panels consist of two outer metal sheets (steel or aluminium) with an insulation of puff core sandwiched, bonded with specialized adhesives. This system setup provides outstanding mechanical performance at minimal weight. The excellent performance of rock wool insulation is commonly adopted for fire-resistance and noise reduction in buildings. Fire retardation capacity 350 to 750°C with 2 hours of fire rating.

Pre-Painted GI Cleanrooms (PPGI)

FEATURES

- Fire Resistant and Safety
- Durability
- Versatility and Design Options
- Waste Reduction and Recycling



Pre-painted wall and ceiling panels are fabricated by using pre-painted GI Sheets of 0.60/0.80 mm thickness. These are bonded on GI frame with an in-fill of polyurethane foam (PUF/ PIR) forming a rigid panel.

- Standard thickness: 50, 80 and 100 mm
- Standard width: 1000/1200 mm
- Standard height: 3000 to max. 6000 mm
- Base Detail: C-Type base
- Panel connection: Friction type interlocking key for speedy erection and dismantling
- Cutouts: On site cutouts of required sizes



FEATURES

- Maximum durability and high visibility
- Attractive look
- Prevents direct contact with sunlight
- High energy saving

Specifications

View Panels are similar as wall panels with cutout for vision. In view Panel in which 5 mm toughened glass is flushed with the both skins of partition.

– It has moisture-absorbing silica-gel granules along with the SS/GI/ALU frame to keep the glazing unit cavity moisture-free.

Standard size	: 1200 X 4500 mm
Base Detail	: Raised type base to allow flush coved finish and C-type base
Panel connection	: Friction type interlocking key for speedy erection and dismantling
Insulation	: Polyurethane foam (PUF/ PIR), paper core honeycomb and mineral wool
Surface Finish	: Glossy finish available in various colors
Coving	: Powder coated aluminium coving. Press fit fixing arrangement with aluminium backing
Sealant	: Food grade silicone sealant for minimizing air leakages

Load Bearing Ceiling

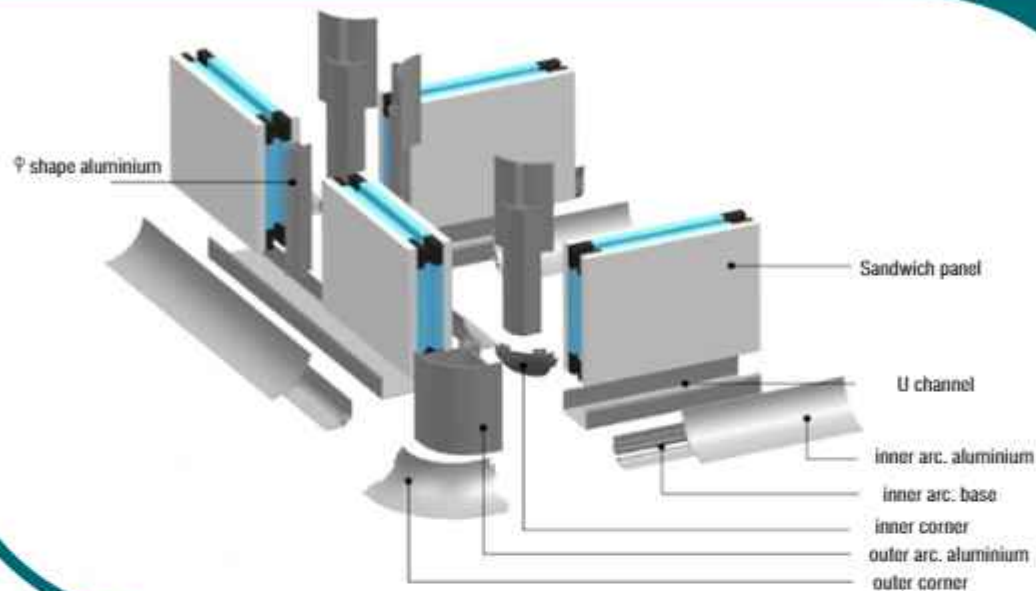
The unique design of the ceiling allows the additional in incorporating flush light fittings, air-conditioning filters, grills, diffusers and other ceiling mounted equipment, all fitted within accurately CNC punched apertures. Its unique design enables the structure to stand free of any support (box within a box) from the existing building/ structure.



Technical Specification

Technical Specification	PCGI (Powder Coated)	SS	HPL	GRP	PPGI (Pre-Painted)
Skin	0.6/ 0.8/ 1.0 mm	0.8/ 1.0 mm	3.0/ 4.0 mm	4.0 mm	0.6 mm
Structural Frame Work	GI	GI	Aluminium	GRP in wall Aluminium in celing	GI
Insulation	PUF/ PIR/ Rockwool/ Papercore	PUF/ PIR/ Rockwool/ Papercore	PUF/ PIR/ Rockwool/ Papercore	Nil	PUF/ PIR
Connecting Profile	AL/ GI	AL/ GI	AL	GI	AL
Base Profile	GI Raised Floor Track U Type	SS/ GI Raised Floor Track U Type	GI Raised Floor Track U Type	GRP	GI (U Type)
Sealant	Silicon Sealant	Silicon Sealant	Silicon Sealant	Silicon Sealant	Silicon Sealant
Panel Width	1120 mm	1120 mm	1200 mm	961 mm	1000 mm
Panel Height (Maximum)	6000 mm	6000 mm	4500 mm	4500 mm	3000 mm
Panel Thickness	80/100/160 mm	80/100/160 mm	80/100/160 mm	80/100/160 mm	80/100/160 mm
Power Coating Thickness	60-80 Micron	NA	NA	NA	25-30 Micron
Finish	Matt Finish	SS Finish (Matt/ Mirror Finish)	Laminated	Matt finish	Gloss finish (40% Gloss level)
Color	As Per GMP Ral Chart	NA	As Per Shade Card	Various	9002
Coving (AL Power Coated)	R50	R50	R50	Inbuilt in Panel	R50

Cleanroom Panel Accessories



Name: Aluminium
Thickness: 1.5 mm / 2.0 mm / 2.5 mm



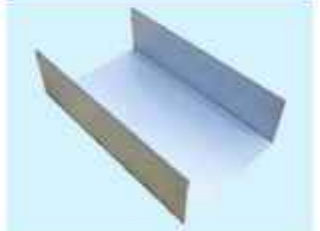
Name: Aluminium
Thickness: 0.8 mm / 1.0 mm / 1.2 mm



Name: Outside Cylindrical
Thickness: 0.8 mm / 1.0 mm / 1.2 mm



Name: Aluminium Tube
Thickness: 0.8 mm / 1.0 mm / 1.5 mm



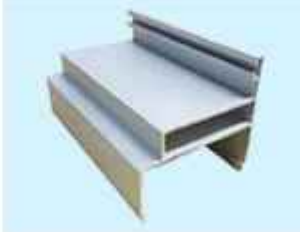
Name: Aluminium Tube
Thickness: 0.8 mm / 1.0 mm / 1.5 mm



Name: Inner Arc
Thickness: 0.8 mm / 1.0 mm



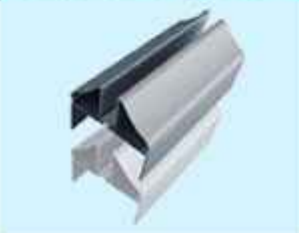
Name: Double Door Material
Thickness: 1.0 mm / 1.2 mm / 1.5 mm



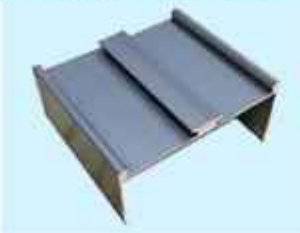
Name: Single Door Material
Thickness: 0.8 mm / 1.0 mm / 1.2 mm



Name: Window Material
Thickness: 0.8 mm / 1.0 mm / 1.5 mm



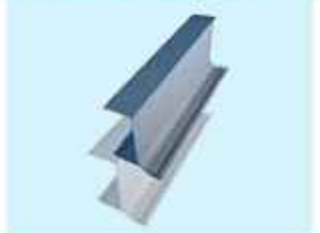
Name: Window Material
Thickness: 0.8 mm / 1.0 mm / 1.5 mm



Name: Hanging Beam
Thickness: 1.0 mm / 1.5 mm / 2.0 mm



Name: Single Door Material
Thickness: 0.8 mm / 1.0 mm / 1.2 mm



Metal Doorsets

- FIRE RATED DOOR
- CLEAN ROOM DOOR
- INDUSTRIAL DOOR
- ACOUSTIC DOOR



Doorsets are specifically tailored to critical requirements of the market with special attention to the use of galvanized/stainless steel. GMP metal doorsets are available in different configurations to achieve varying requirements of our clients. In addition to single leaf and double leaf frames with removable over panels, borrowed light and glazing can be introduced.

FIRE RATED DOOR

Fire Rated Door with fire resistance rating used as part of a passive fire protection system to reduce the spread of fire between compartments and to enable safe egress from a building or structure. GMP offers fire rated doors with fire resistant levels from 30 minutes to 2 hours all tested to BS 476 Part 22, UL10B & UL 10C.

CLEAN ROOM DOOR

Cleanroom Door is manufactured from galvanized steel/stainless steel sheets with lock formed edges. Insulated and bonded with honeycomb paper, mineral wool or polyurethane foam forming a rigid flush fittings with innovative flush double glazed finished in pure polyester coating of 60-80 microns forming smooth surface finish.

INDUSTRIAL DOOR

Heavy duty industrial metal doorsets are available in size up to 3000 mm width and 3500 mm in height. Doors are capable of accepting glazing in many configurations with air vents, louvers and a wide range of hardware. Doors are pure polyester powder coated to 60-80 microns forming a smooth surface finish.

ACOUSTIC DOOR

Acoustic Door is designed to reduced sound transmission between rooms and to provide sound privacy if any architectural environment. GMP offers acoustic door with special linings, seals and structurally bonded cores to achieve high level of sound reduction.

METALLIC FLUSH DOORS FOR CLEAN ROOM, LABS MADE OUT OF POWDER COATED GALVANIZED SHEETS OR STAINLESS STEEL

Doors for long life, pressurized rooms, security, Sensor operated and for aesthetics.

With in fill of Paper Honey Comb and enclosures of steel sheet make it not only look good but gives strength and light weight.

Ideal for industries and the places where there is frequent usage.

Unique selling points

- Being metallic in nature, we can create a air tight configuration thus perfect for clean room applications.
- Specialized PU paints are used for ever lasting and scratch resistance qualities.
- High end accessories like Door closures, Handles, Hinges, Kick plates, Tower bolts etc.
- Available in Stainless steel also for chemical applications and for corrosive environment.
- Single & Double Shutter.

APPLICATIONS:

Clean Rooms, Labs & Hospitals, Building-High Rise And General, Industries In General



SPECIFICATIONS:

Door Jamb Size : 50 mm, 60 mm, 80 mm and 100 mm Material : Gpsp/Stainless steel Sheet thickness: 1.2 mm Frame Profile : Single Rebate	Door Leaf Thickness : 46 mm Material : Gpsp/Stainless steel Sheet thickness: 0.8 mm and 1 mm Infill : Puf, Honeycomb and Rockwool
Vision Panel Size : Optional (As per client requirement.) Type : Flush double Glass (Float/ Toughned)	Finish Powder Coating(60 to 70 micron) Stainless steel
Hardware Chempharm standard hardware and optional (Dorma/Stainley/Geze/IR)	Fixing Arrangement Anchor bolt, Fischer and Hex head screw
Door size Std size for single door 750 X 2100 mm 900 X 2100 mm 1000 X 2100 mm 1100 X 2100 mm Non std as per client requirement	Std size for double door 1200 X 2100 mm 1500 X 2100 mm 1800 X 2100 mm 2000 X 2100 mm 2200 X 2100 mm Non std as per client requirement

Mineral Wool



Honeycomb



PUF



Fire Rated Doors & Emergency Exit Doors

IT IS BETTER TO BE SAFE THAN SORRY

Our Fire Doors are tested as per BS 476 Part 22 and IS 3614 Part 2 for stability and integrity. They are available in an extensive range from half an hour fire rating to 2 hours fire rating.

Highly trained team from designs with most experienced manpower and with the use of high end machines brings the doors which – Keeps the security need in mind and aesthetic properties as well

OUR UNIQUE SELLING POINTS

- Fire rating up-to 2 hours
- Duly certified from reputed labs of india
- Specialized scratch resistant paint for high temperature
- Manufactured from high end steel fabrication machines using Laser/Turret/CNC bends etc.
- Smooth finish with high quality infill & fittings
- Recommended for high rise building, chemical plants, general industries, telecom & IT/Software companies for server rooms etc, electronic companies auditorium, multiplexes.
- **Optional Accessories -**
- **Anti-Panic Exit Device (Panic Bars):**
- **Externally fitted Door Closers:** Heavy duty door closers available in various makes and TYPES like fire rated and non-fire rated.
- **Vision Panel:** Available in Wired & Clear glass (Rectangular/ square)
- **Externally fitted Hardware Fittings** like Locks/Handles/Tower Bolts/Latches etc.
- **Provision for Access Control.**



TECHNICAL SPECIFICATIONS

Door Jamb

- Size : 100 mm, 125 mm and 150 mm
- Material : Gpsp/Stainless steel
- Sheet thickness : 1.5 mm
- Frame Profile : Single Rebate and Double Rebate

View Glass

- Size : 9 sqm (based on certification)
- Type : Single view Panel - Fire rated, Toughened and float glass (optional)

Hardware

- Chempharm standard hardware and optional (Dorma/ Stainley /Geze/IR)

Certification

- CBRI- Apply(BS 476 part 22)

Std size for double door

- 1200 X 2100 mm
- 1500 X 2100 mm
- 1800 X 2100 mm
- 2000 X 2100 mm
- 2200 X 2100 mm

Non std as per client requirement

Door Leaf

- Thickness : 44 mm/46 mm
- Material : Gpsp/Stainless steel
- Sheet thickness : 1mm
- Infill : Honeycomb and Rockwool

Finish

- Powder Coating(60 to 70 micron)
- Stainless steel

Fixing Arrangement

- Anchor bolt and Hex head screw

Std size for single door

- 750 X 2100 mm
- 900 X 2100 mm
- 1000 X 2100 mm
- 1100 X 2100 mm

Non std as per client requirement

Sliding Doors For OT - Hospitals & Labs

Hermetically Sealed Sliding doors or Non Hermetically Sealed are manufactured in house for critical application

USP (Unique Selling Proposition)

- Stainless steel & Powder coated
- Door Movements/Drives are Imported
- Sealing are used as per international standard
- Duly tested after installation for leakages
- Sensor operated - Foot Sensor & Hand Sensor
- Ultra Finish in both Stainless steel as well as powder coated

SPECIFICATION-:

1. **Door panel**
Material- SS sheet or GPSP
Thickness- 0.8mm or 1 mm
2. **Jamb**
Material- SS sheet, Gpsp
Thickness- 1.2 mm
3. **Door size**
 - A. Single sliding doors- 800 mm to 1500 mm X 2000 mm to 2400 mm
 - B. Double sliding doors- 1500 mm to 2400 mm X 2000 mm to 2400 mm
4. **Finish** - SS 304 brush finish and powder coating



COLD ROOM / COLD STORAGE AND FREEZER DOOR

Such doors are made out of PCGI sheet with special fittings and thickness from 60 mm to 150 mm.

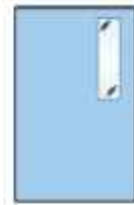
The doors are fitted with low temperature gaskets. The sizes and colors are to suit the end users



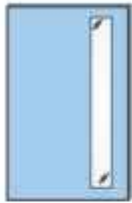
Door Design



S (Solid)



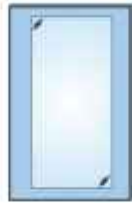
SNV (Short-Narrow Vision)



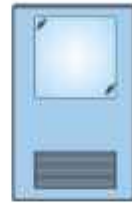
Stand View Panel



HG (Half Glass)



FFG (Full Face Glass)



HGL (Half Glass Louver)



CV (Circular Vision)



CR (Clear Room)

Ironmongery



DEAD LOCK



D HANDLE



HINGE



FLUSH BOLT



DOOR SEAL



DOOR CLOSER

Door Handling



LH LEFT HAND



RH RIGHT HAND



DDLA DOUBLE DOOR LEFT ACTIVE



DDLA DOUBLE DOOR RIGHT ACTIVE

Frame Profile For Brick Work



6 bends single rebate profile for fire and non-fire rated system



6 bends single rebate profile for non-fire rated system

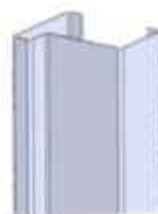


8 bends double rebate profile for fire rated and non-fire rated system

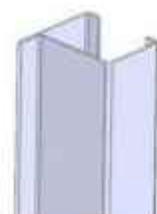
Frame Profile For Partition



80 mm Profile



60 mm Profile



50 mm Profile



PASS BOX



AIR FLOW UNIT



AIR SHOWER



MIST SHOWER



**BIO-SAFETY
CABINET**



**DISPENSING &
SAMPLING BOOTHS**

Static Pass Box



SBRG Static Pass Box is specifically designed that aids in the material transfer within same Cleanroom Classification without much personnel movement.

SPECIFICATIONS & FEATURES

- Material of Construction : SS 304 / SS 316 / SS 316 L / PCGI
- Flush Double walled Construction with Internal Coving
- Flush Doors with double walled flush glass view panels
- Electro-Magnetic Interlocking / Mechanical
- Feather touch Door Release Switch on either side

SBRG Dynamic Pass box helps in prevention of contaminants entrance either in the Cleanroom or between various classified areas.

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L / PCGI
Air cleanliness	:	ISO Class 5 (ISO 14644-1:1999(E))
Air Velocities	:	0.45 ± 0.05 MPS OR 100 ± 20 FPM
Air Flow	:	Vertical – Re-circulatory
Power Supply	:	230V AC 1- Ø 50 HZ

Dynamic Pass Box



Horizontal LAF



SBRG Horizontal LAF is designed for offering highest product protection by providing ISO Class 5 particle free work area for handling critical process.

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L / PCGI
Air cleanliness	:	ISO Class 5 (ISO 14644-1:1999 (E))
Air Velocities	:	0.45 ± 0.05 MPS OR 100 ± 20 FPM
Air Flow Direction	:	Horizontal – Re-circulatory
Power Supply	:	230V AC 1- Ø 50 HZ
Supply Filter	:	HEPA Filter - Efficiency- 99.997% down to 0.3

SBRG (RLAF) is designed for providing highest level of protection from airborne contaminants generated during powder handling operations such as sampling, charging & dispensing. RLAF provides Operator Protection & Product Protection

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L / PCGI
Air cleanliness	:	ISO Class 5 (ISO 14644-1:1999 (E))
Filtration Stages	:	3 Stage Filtration
Air Velocities	:	0.45 ± 0.05 MPS OR 100 ± 20 FPM
Supply & Bleed Filter	:	HEPA Filter - Efficiency- 99.997% down to 0.3 micron

Reverse LAF



Vertical LAF



SBRG Vertical LAF is designed to create areas supplied with a continuous flow of clean air to maintain a work environment that is free from dust particles, and toxic or noxious fumes.

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L / PCGI
Air cleanliness	:	ISO Class 5 (ISO 14644-1:1999 (E))
Air Velocities	:	0.45 ± 0.05 MPS OR 100 ± 20 FPM
Air Flow Direction	:	Vertical – Re-circulatory
Power Supply	:	230V AC 1- Ø 50 HZ
Supply Filter	:	HEPA Filter - Efficiency- 99.997% down to 0.3 micron



SBRG (MLAF) is designed for transporting sterile products under Class 100 particle free work area. The work area is supplied with positive pressure HEPA filtered air flow.

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L / PCGI
Air cleanliness	:	ISO Class 5 (ISO 14644-1:1999 (E))
Filtration Stages	:	2 Stage Filtration
Air Velocities	:	0.45 ± 0.05 MPS OR 100 ± 20 FPM
Power in Mobility	:	Battery back-up with inverter for 30 minutes
Supply Filter	:	HEPA Filter - Efficiency- 99.997% down to 0.3 micron

Mobile LAF Trolley



Air Shower



SBRG Air Shower is designed to supply Class 100 HEPA filtered air at high velocity to remove particulate matter from the person entering the Cleanroom.

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L / PCGI
Air Velocities	:	2500 to 4000 FPM
Air Flow Direction	:	Vertical + Horizontal through Jet Nozzles
Power Supply	:	230 V AC 1 Ø 50 HZ / 415 V AC 3 Ø 50 HZ
Supply Filter	:	HEPA Filter - Efficiency- 99.997% down to 0.3 micron

SBRG Mist Shower (MS) is a chamber installed at exit of Cleanroom to provide protection during de-gowning process while exiting the area.

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L
Mist Flow Direction	:	Vertical + Horizontal through Mist Nozzles
Supply & Drain System	:	Supply & Drain system with Ultrasonic Nozzles
Control Systems	:	PLC / Micro- processor-based Controller
Flooring Type	:	Removable Stainless-Steel Flooring

Mist Shower



Bio Safety Cabinet



SBRG (BSC) is designed to provide personnel, environmental and product protection. Air flow is drawn around the operator into the front grille, which provides personal protection.

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L / PCGI
Level of Safety	:	Level 1 to Level 3
Air cleanliness	:	ISO Class 5 (ISO 14644-1:1999 (E))
Air Velocities	:	0.45 ± 0.05 MPS OR 100 ± 20 FPM
Power Supply	:	230V AC 1- Ø 50 HZ
Supply & Exhaust Filter	:	HEPA Filter - Efficiency- 99.997% down to 0.3 micron

SBRG Garment Storage Cabinet (GSC) is designed to provide Class 100 particle free work area to meet garment storage needs which avoids any particulate accumulation.

SPECIFICATIONS & FEATURES

Material of Construction	:	SS 304 / SS 316 / SS 316 L / PCGI
Air cleanliness	:	ISO Class 5 (ISO 14644-1:1999 (E))
Air Velocities	:	0.45 ± 0.05 MPS OR 100 ± 20 FPM
Air Flow Direction	:	Vertical – Re-circulatory
Supply Filter	:	HEPA Filter - Efficiency- 99.997% down to 0.3 micron

Garment Cubicle



Fume Hood



SBRG Fume Hood (FH) is a type of local ventilation device that is designed to limit exposure to hazardous or toxic fumes, vapors or dusts.

SPECIFICATIONS & FEATURES

Material of Construction	:	Powder Coated MS / SS 304 / PCGI
Exhaust System	:	Exhaust Chimney with weather cowl, bends flanges.
Ducting	:	PVC / FRP duct pipe with suitable elbow
Power Supply	:	230V AC 1- Ø 50 HZ
Exhaust Filter	:	HEPA Filter - Efficiency- 99.997% down to 0.3 micron

Cleanrooms require specialized furniture that does not shed particles. You can rely on SBRG Clean Tech to supply the CLEANROOM furniture you need.

SPECIFICATIONS & FEATURES

- Stainless Steel 304 Grade compatible with CLEANROOM Class 100,000 to Class 100
- Extremely smooth surface ensuring reduced particle retention

Our Cleanroom SS Furniture range includes

- Stainless Steel Tables, Chairs, Trolleys, Step Ladders, Storage Lockers, Stools,
- Stainless Steel Cross Over Benches, Garment Storage Cabinets, Working Tables.
- Stainless Steel Racks, Trays, Mopping Trolleys, Bins, Sinks etc.

SS Furniture





Scope of Work in HVAC

- Complete HVAC High Side & Low Side works
- Hygiene AHU / Chillers
- Ducting as per SMACNA Standards
- Indoor Air Quality Control
- Humidity & Temperature Control & Monitoring
- Humidification & De-Humidification
- Ventilation Works
- Supply all Air Handling Unit

Total Clean Room Solutions

CLEAN ROOM

A team of qualified professionals. with expertise in their field,
provide thebest quality customized solutions to our customers.

HVAC *PRODUCT Catalogue*



Turnkey Clean Room Solutions

- » We provide Clean rooms as per ISO 14644 guidelines from Class ISO 5 (i.e. Class 100) to class ISO 8 (i.e. Class 100000)
- » We also provide guidance for plant designing as per cGMP and WHO GMP guidelines.

COMPLETE CLEAN ROOM SYSTEM INTEGRATION



Application Industry

- Pharmaceuticals
- APIs
- Medical devices
- Diagnostic Kits
- Herbal and Ayurvedic
- Homoeopathic & Unani
- Food and beverages
- Semiconductors and electronic industries
- Glass manufacturing
- Optical/ instrumentation lab
- R&D labs
- Biotech parks
- Microprocessor industries
- Mobile phone assembly units
- LCD/LED assembly units
- Automobile component assembly units
- Research institutes (labs)
- Hospitals

Our complete clean room system integration includes

- HVAC- Air Handling Unit/Condensing unit/Chiller/ Ducting and Insulation/Fan coil unit.
- Terminal Filter housing and inbuilt Return Air Riser.
- Complete range of Clean room Equipment in SS 304/SS 316/SS 316 L construction. (e.g. RLAF, LAF, Pass boxes & air shower etc.)
- Epoxy/ESD Flooring.
- Designing of facility as per cGMP & WHO GMP guidelines.
- Validation and Documentation.



CLEAN ROOM EQUIPMENT

We provide **clean room equipment** with best quality material. Our offerings includes all type of clean room equipment which are as follows:

- Air shower
- Passbox- dynamic and static
- Laminar air flow-horizontal/vertical/hanging/mobile.
- Garment storage cabinet-dynamic/static
- Sampling and dispensing booths.
- Fume hoods
- Bio-safety cabinet
- Clean room modular partitions and doors
- HEPA/ Minipleat filters
- Dedusting tunnels



Our equipment are generally made of stainless steel 304 and 316, 316L construction

These equipments are used by healthcare companies, semiconductors, electronics and research labs.



OUR DEDICATED TEAM

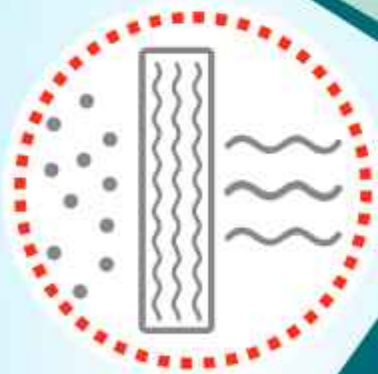
We are one of the few companies which has competency to offer total solutions from design to execution stage. We have our own dedicated teams in all these areas with relevant experience. We provide all our valued clients hassle free services without any delays.

We import/ source various components of highest standards required to manufacture clean room panel. Our motto is to give you the best possible solution and items on most competitive rates and fast delivery.

We provide post execution support to our clients till their team is trained for the same.

- Design
- Supply
- Execution
- Validation
- Documentation
- Maintenance



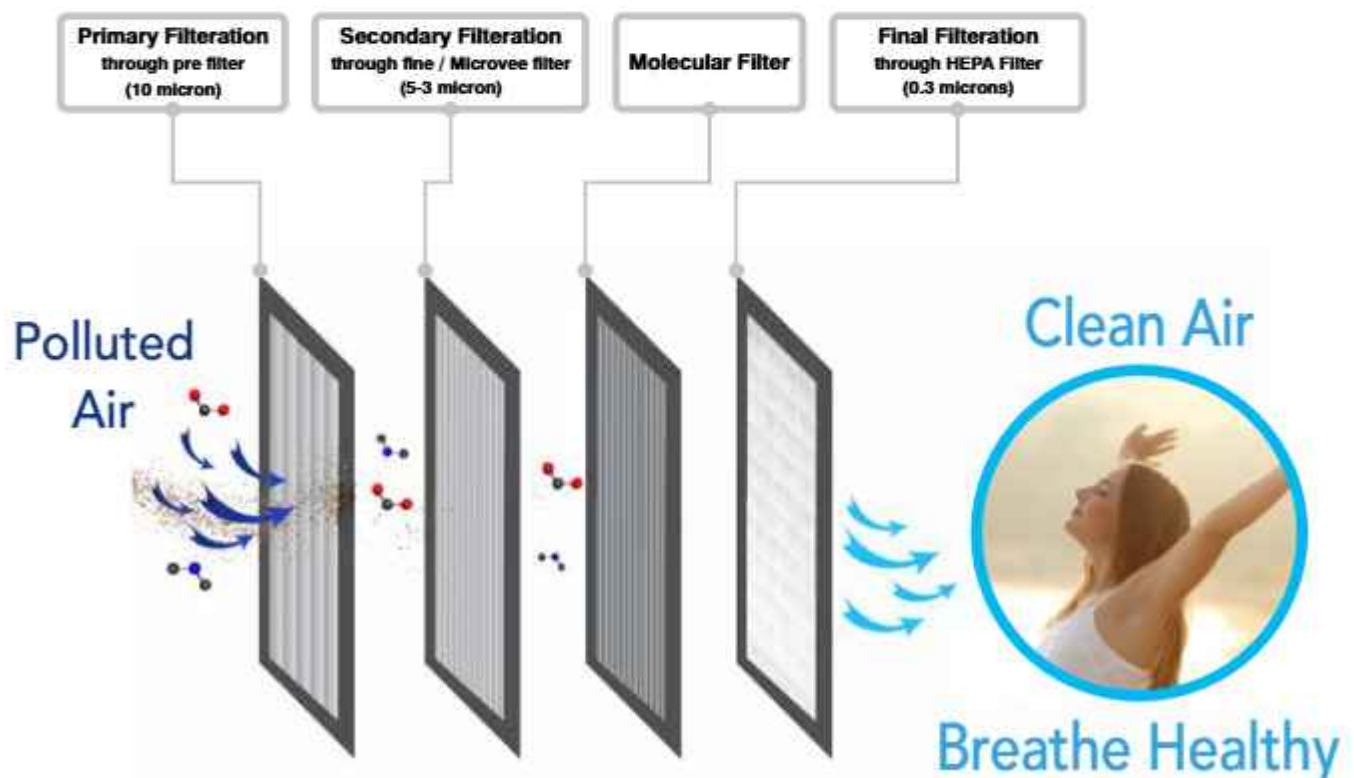
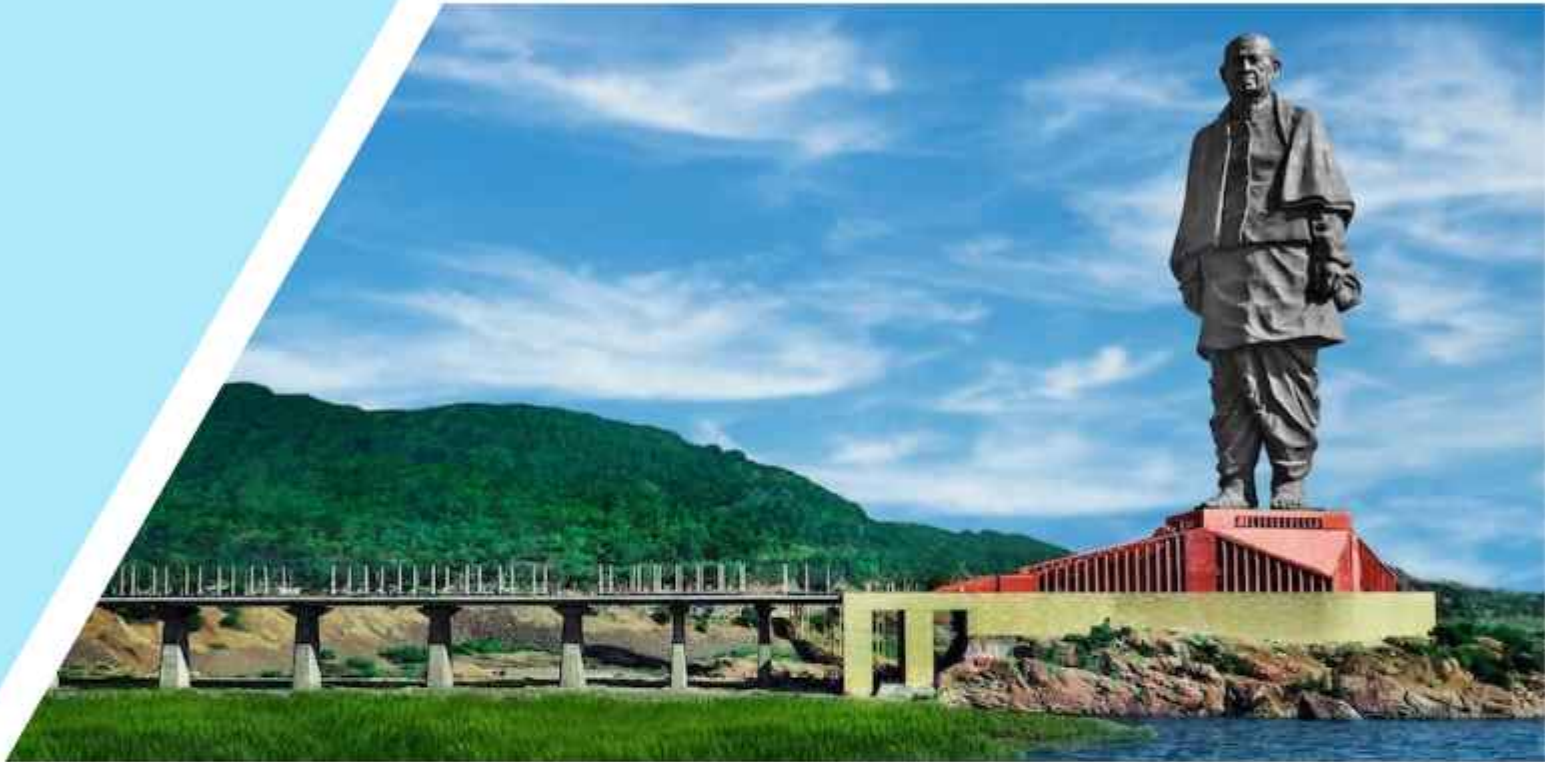


Air Filter **PRODUCT** *Catalogue*

“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 CI	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 ❖ SO_x, NO_x, 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 :

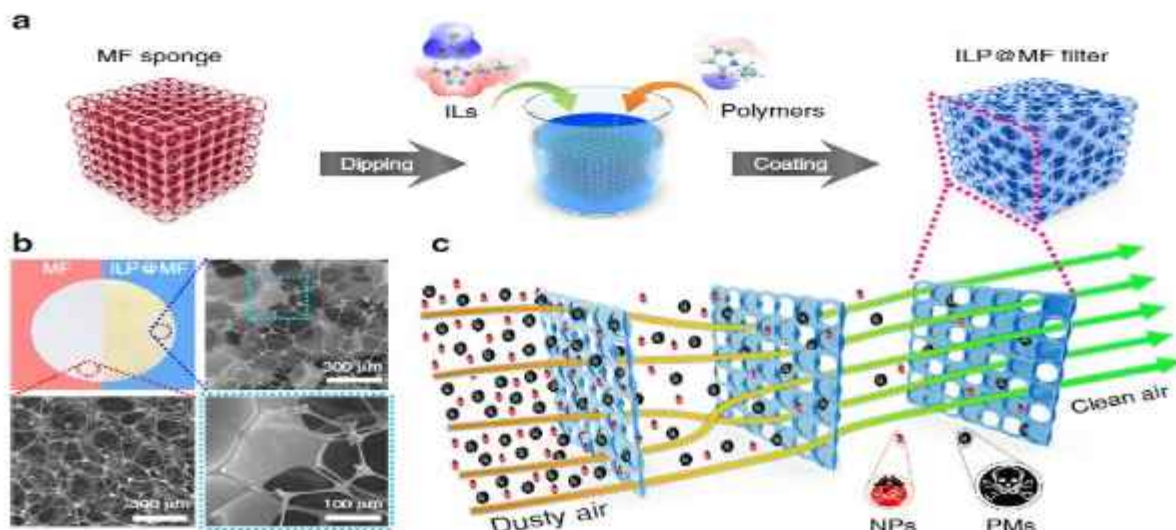
- 0.3 – 10 μm
- 0.3 to 2.5 μm
- 0.3 – 1 μm

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%



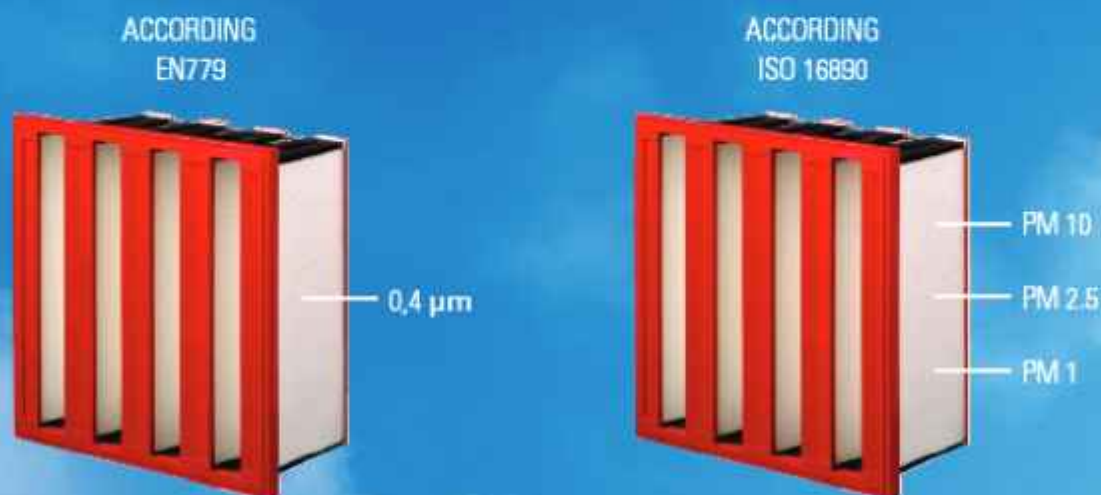
HOW YOUR BUSINESS CAN BENEFIT FROM THE ISO 16890 AIR FILTER STANDARD?



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 Contaminants¹		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 µ— 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 0.4µm particles %
Coarse	G1	250	50≤Am<65	-	-
	G2	250	65≤Am<80	-	-
	G3	250	80<_Am<90	-	-
	G4	250	90<_Am	-	-
Medium	M5	450	-	40≤Em≤60	-
	M6	450	-	60≤Em≤80	-
Fine	F7	450	-	80≤Em≤90	35
	F8	450	-	90≤Em≤95	55
	F9	450	-	95≤Em	70

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 Extrusion/Gl	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 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

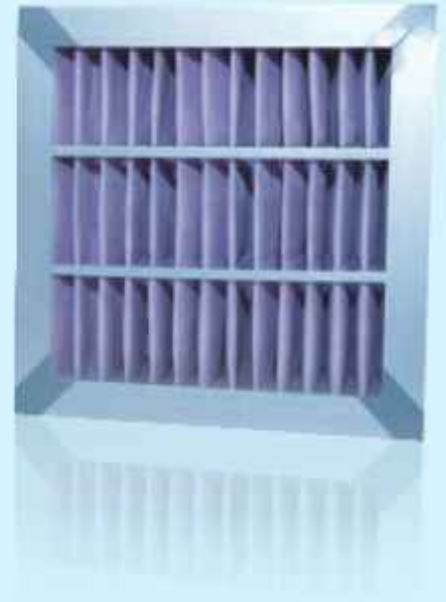


TECHNICAL PARAMETERS

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 X305 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 Hopa 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.

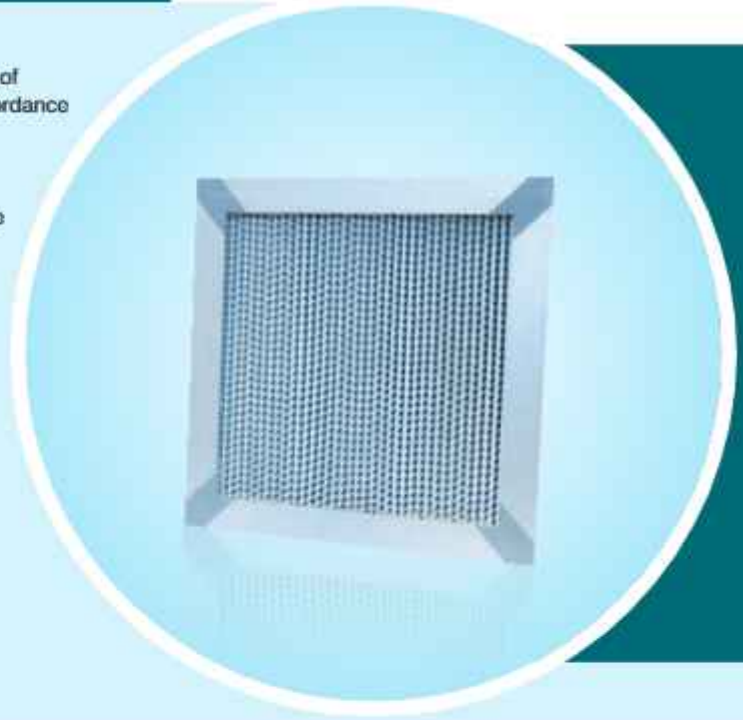
High air purity is the essential requirement for sensitive controlled technical process. Clean rooms are used as they ensure low-particle or when necessary, a low-germ environment. Semi hepa filters are used to achieve the required filtration class as set by WHO & cGMP.

FEATURES:

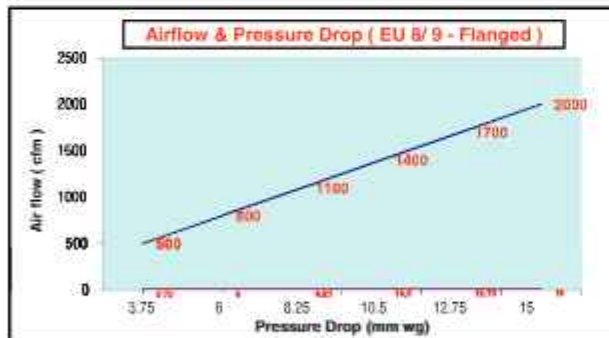
- Tested According to EN: 779
- High Filter Efficiency.
- High Dust Holding Capacity
- Long Service Life.
- Large Surface for Filtration.

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

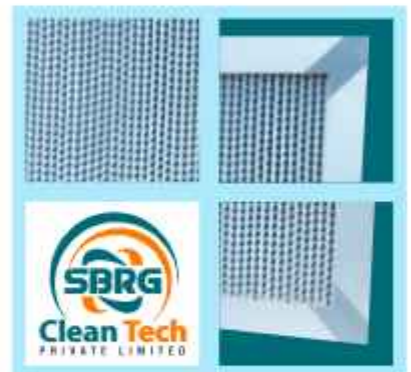


* The pressure Drop can vary $\pm 10-15\%$

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



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.

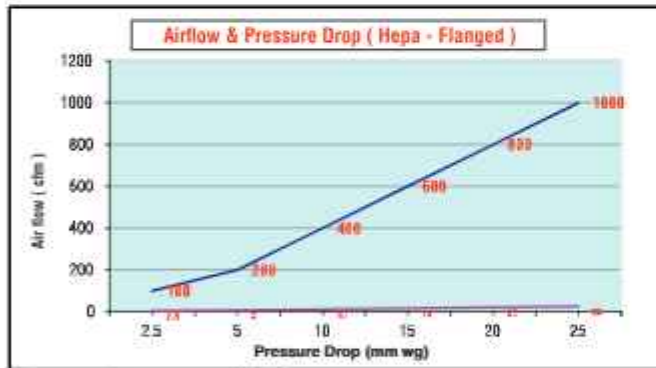
FEATURES:

- 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



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

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



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.

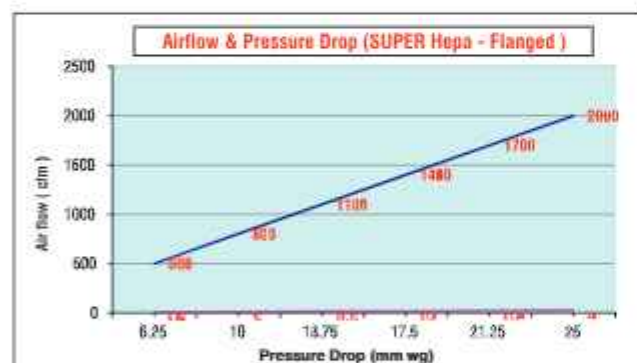
FEATURES:

- 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



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

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



HIGH FLOW 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	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.

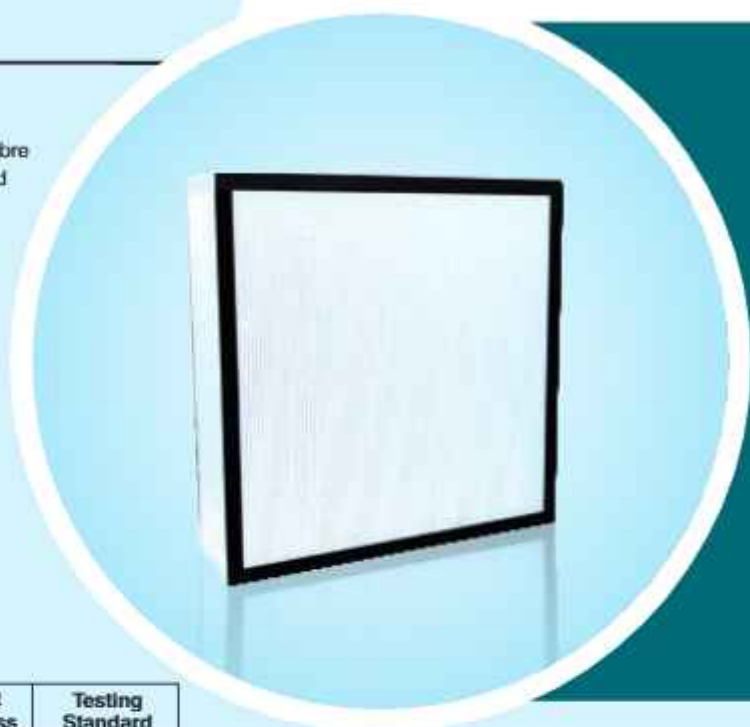
FEATURES:

- 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



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

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



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.

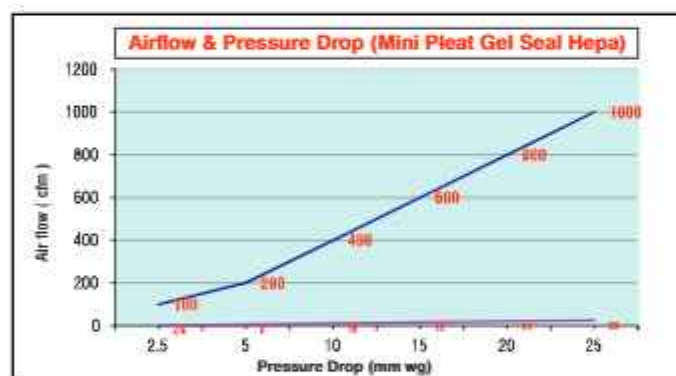
FEATURES:

- 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



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

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



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 hung 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. |



LABORATORY FURNITURE

PRODUCT CATALOGUE



FUME HOODS

MODULAR LAB TABLE

ISLAND BENCHES

CHEMICAL CABINETS

FUME EXTRACTION SYSTEM

CUPBOARD



FUME HOODS

Advanced Fume Hood Solutions for Enhanced Laboratory Safety and Efficiency

A fume hood is a ventilated enclosure in which gases, vapors and fumes are captured and removed from the work area.

At **SBRG Cleantech**, we understand the critical importance of maintaining a safe and controlled environment in your laboratory. Our cutting-edge fume hoods are made to protect lab workers to the highest standard while maintaining the integrity of the experimental procedures.

We offer a complete line of bench top, walk in and low base hoods, including a wide selection of hood accessories, cabinets, countertops and blowers.

We offer a wide variety of models and customisation choices with dedicated customer service offering continuous assistance.





Features

- User Friendly
- High Efficiency Filtration
- High Load Bearing Capabilities
- Customizable Airflow

LABORATORY TABLE

Laboratory table provide a safe and efficient workspace for conducting experiments in a science labs.

At **SBRG Cleantech**, we design and manufacture laboratory tables that meet the highest standards of functionality, durability, and ergonomic efficiency.

Our tables are crafted to support a wide range of laboratory activities while enhancing the overall safety and productivity of the workspace.

Our laboratory tables are developed with the newest technologies and premium material. Available in various sizes and configuration to fit the specific laboratory layout and requirement with dedicated customer support service.





Features

- Modern Design
- Variety of finishes
- High Quality Materials
- Easy Maintenance

ISLAND BENCHES

It is a free-standing unit, accessible from all sides, making it perfect for central location within the lab.

Cleantech benches are made of high-quality material which are resistant to chemicals, heat and mechanical damage.

Our benches are fire resistant where we have added layer of safety in environment where inflammable substance is handled. It is equipped with necessary utilities like water taps, gas valve etc which convert workbenches to workstations.





Features

- High Quality
- Fire Resistant
- High performance
- Easy Maintenance

CHEMICAL CABINETS

Chemical cabinets are designed and built for the safe storage of acids and corrosive chemicals.

SBRG Cleantech decreases the risk of fire-related events by meeting the strict fire resistance criteria.

Cabinets come with clear hazard warnings and labels, facilitating compliance with safety protocols. Cabinets are easily accessible with transparent doors, making it easier to locate and retrieve chemicals quickly.

Features

- Fire Resistance
- Spill Containment
- Ventilation Options
- Sustainable Designs



FUME EXTRACTION SYSTEM

Fume extraction systems are the machines that use fans to extract dust, toxic fumes and other harmful particles into a contained filtration system.

Fume extraction system suitable for various laboratory environments, including chemical, pharmaceutical and biological labs.

We offer customizable configurations to meet specific laboratory needs. Our material is built from high quality, corrosion-resistant material.

Features

- **Effective Fume Removal**
- **User Friendly**
- **Advanced Filtration**
- **Versatile Application**





MODULAR OPERATION THEATRE

PRODUCT CATALOGUE

MODULAR OPERATION THEATRE



INTRODUCTION

We are Manufacturer, Supplier, Exporter of Modular Operation Theatre, Operation Theatre Equipment's, OT Equipment's, OT Plenum Module, OT Wall Panels, OT Room Doors, OT Plenum, OT Wall Panels, OT Windows, Graphic glass, OT Flooring, OT Ceiling, OT Lights, Air Handling Units, OT Control Panels. We also provide Operation Theatre Design, Setup, Maintenance Services. Our setup is situated in Halol, Gujrat, India and majorly we serve customers from Maharashtra, Gujarat, Tamil Nadu, South India. Modular operation theatre maintains the conditions of a ceiling, slanted panels and wall. In a modular operating theatre, hygiene, cleanliness, featured humidity and the controlled temperature is the critical requirements of operation theatre. We design the modular operation theatre satisfying those conditions. **SBRG CLEAN TECH PVT. LTD's** Modular Operation Theatre is the outcome of continued research performed to justify and fulfill fundamental requirements.



Modular OT is useful for single specialty and the multi-specialty hospital.

Hospital management takes care of everything starting from the entry of patients and staff till the disposing of exposed materials. In the hospital, there is necessary to maintain hygiene, cleanliness, humidity, temperature precisely. **Modular Operation Theatre** is helping hospital management in creating OT environment with these key features.

SERVICES AND PRODUCTS

SBRG CLEAN TECH PVT. LTD is a leading company for planning, executing and managing turnkey projects. We offer 360° solution for **Modular Operation Theatre**. We provide tailor-made Modular OT so that it could be installed precisely as per your specific requirement. We execute the projects with perfection. We follow industry standards and technical guidelines of ASHRAE, WHO, cGMP in Cleanroom Systems for Modular OT. A turnkey project of Modular OT includes:

FEATURES

- OT plenum
- OT Wall Panels
- OT Room Doors
- OT windows
- OT Flooring
- OT Ceiling
- OT Lighting
- Air handling unit
- OT Control panel
- DX unit



DESCRIPTION

Modular Operation Theatre also known as Modular OT, manufactures and designing for hospital operation room, laboratories etc. Most integrated functions are always required in an operating department, such as cleanliness must be preserved and the safety facilities, equipment and device must be maintained any times. Our modular operating theatre equipment has been satisfying those conditions consists of a ceiling, slanted panels and wall. In addition, it has a high availability with high work ability and enough functions, which is provided for the introduction of a new facility in the future.

In a modular operating department for which the greatest integrated function is required, cleanliness, must be kept and the safety of equipment, facilities and devices must be maintained by any times. Also the working environment for medical staff such as doctors and nurses must be considered from the view point of human engineering. The modular operating theatre satisfying those conditions consists of wall, ceiling and slanted panels, and is capable of incorporating not only electrical equipment, medical gas system and lighting gears but all the necessary functions and equipment's at need.





In addition, the operating theatre equipment has a high availability of addition providing for the introduction of new facility in the future, establishing as well as operating surroundings with high work facility and enough function. The utmost complex and demanding area of hospital construction is the operating department. The Pre-fabricated operating theatre integrated approach to the construction and co-ordination of operation theatre. The manufactured modular operating theatre offers the advantage of speedy construction combined with design, development and future expansion in surgical technique whilst simultaneously providing a structure of the maximum quality and standards.

Features :

1. A constant flow of extremely clean 'bacteria-free' air is reticulated below positive pressure into the working field and air pollutants produced during surgery are removed from the site.
2. Operation Theatre with anti-bacterial paint has minimum durability of 15 years.
3. Easy to pure steam cleaned, electro metric (ideal for high humidity areas)
4. Seamless.
5. Vapor permeability (allows substrate moisture to escape) protects against growth of mould, bacteria and yeasts.
6. Thaw resistance / freeze, moisture resistance.

OT PLENUM

SBRG CLEAN TECH PVT. LTD manufactures and provides a high- quality range of ceiling mounted plenum. We produce this plenum boxes in MS powder coated or SS 304. We enclose the plenum with EGP steel panel or PUF sandwich panel. The plenum is provided with horizontally, or vertically installed DOP tested & point-wise scanned HEPA filters with discharge grills diffusers. We offer MS powder coated profile structure with integrated SS frames for the placement of the filter. The aluminum profile provides rails for the secure and seamless installation of the false ceiling. This laminar air flow terminal boxes are acknowledged for an easy installation, compact size, less maintenance. These ceiling suspended laminar air flow unit miniplate HEPA filter out germs, dust particles, and prevent entering into the sterile area.

Specifications :

- Air sealed pressure chamber made from MS powder coated or Stainless Steel 304 grade and mounted on stable profile.
- MS powder coated profile structure with integrated SS frames for the placement of the filter. The aluminum profile provides rails for the easy and seamless placement of the false ceiling.



Uniqueness :

- OT Plenum with an exclusive style of coating
- Resistance to oil vapours or chemical attack or disinfectant
- NABH standards for air conditioning related to room occupancy and temperature
- Maintain a minimum positive pressure of 2.5 Pa inside the OT

Technical Specification :

- Cleanliness: Class 100
- Minimum occupancy: 5-8 persons
- Particle retention: 0.3 micron
- Air velocity: 35 FPM unidirectional flow
- Equipment load: 7-9 kW
- Minimum positive pressure: 2.5 Pa
- Temperature: 21°C with a tolerance of ± 3 degree
- Power supply: 220v single phase
- Filter efficiency: 99.97%
- Filter Stages: Pre-filter and HEPA Filter

VARIABLES	SPECIFICATIONS
Housing	Stainless steel 304
Panel Type	Puff
Air changes per hour	20
Face air velocity	25-35 FPM
Internal pressure	>2.5 Pa
HEPA filter	99.99%
Particle reduction	0.3 micron
Class	H 14
Filter protection	Perforated grille
Temperature	21°C \pm 3°C
Humidity	RH 20-60%
Power supply	220V single phase
Cleanliness class	Class 100

OT WALL PANELS

SBRG CLEAN TECH PVT. LTD provides wall panels exclusively designed and developed for modular operation theatre. Our wall panels help clients to meet the complicated hygiene requirement with customized configurations.

We provide wall panels in three basic categories-

- Laminated walls | Solid mineral surface walls | Stainless steel wall

Specifications :

- SBRG CLEAN TECH PVT. LTD Airtech Modular OT Modular Panel System is specifically designed for aesthetic look and achieving project timelines while maintaining modular flexibility.
- The wall and ceiling panel can be made EGP steel panels or PUF sandwiched panel.
- The inner surface walls will be fixed to the bricks wall with essential support. The wall panel joint will be invisible after the final wall service.
- All the sharp edges and corners will be in radius to avoid bacterial contamination. The internal surface of the room wall will be sprayed with water based liquid plastic, wall glaze or equivalent, approved by the architect to a minimum dry film thickness of 300 microns.
- Laminated/ pre coated/ SS sandwich panels for Modular OTsystem are designed according to the latest CGMP norms.



Features :

- Ready for high hygienic standard
- UV-resistance • Puff Panel • Insensitive to spots
- Resistant to heat, light, water, steam, solvents
- Highly resistant for chemical attack and corrosion

Panel Thickness	50, 60, 80, and 100 (mm)
Material	GI Powder or SS304 or Aluminum
Coating	Antimicrobial Coating
Seal	PVC
Insulating Material	Polyurethane foam
Thermal Conductivity	90.02 W/mk at 10°C9.99%
Density of Foam	45kg/m3
Weight of Panel	1.36kg/m3
Compliance	ISO Class 8

Features :

	FIRE RESISTANCE WALL	THERMOWALL
Material	Stainless steel/Tempered glass/ Acrylic/HPL	Stainless steel/ Metal wall
Coating	Anti-microbial powder coat	RAL/NCS
Panel type	Solid core panel	Solid core panel
Wall thickness	>100 mm	>100 mm
Standard width	1,200-1,500 mm	1,200 mm
Wall heights	Up to 5,000 mm	Up to 3,500 mm
Fire resistance class	F130 under EN 13501-2	
Heating system connections		Flexible plastic hoses and compression sleeves
Supply		230-240V/50-60Hz
Hot water heat output		Max. 130 W/m2
Electric heating power		Max. 330 W/m2

OT ROOM DOORS

SBRG CLEAN TECH PVT. LTD devised OT room doors specifically by considering the high-level requirement of international healthcare standards. Our OT room doors fulfils your requirement regarding hygiene, compliant with fire and smoke safety. Our research and development department provides OT Room that is sound-proof. SBRG CLEAN TECH PVT. LTD's OT Room Door is ready for any third-party system integration for sensing, accessing and monitoring purpose.

Modular OT doors can be configured as single/double swing-out or as horizontal sliding either manual, automatic or semiautomatic. Single entry doors will be 900 mm wide, 2100 tall and 50 mm thick come with 300×400 mm safety viewing windows. Door material will match wall panels and be framed in an aluminum channel for heavy traffic areas. They are sealed with a full gasket jamb and come pre-hung at a factory to ensure proper fit. Standard features include thresholds, commercial grade stainless steel lock sets and safety viewing windows. Door Jamb is a very heavy extrusion designed to eliminate weak door panel frames. All doors are factory pre-hung with hinges and door lockset. Swing-out doors are designed to fit flush with both sides of the wall panel system and are supplied in several dimensions. Double doors (6070) come with the same finishes and features as single doors.



Uniqueness :

- Manufacturer of both swing and sliding door
- Availability of automatic, semi-automatic manual sliding door
- Application of decontamination barrier
- Hermetically sealed or air-tight doors

Features :

- Stainless steel & Painted stainless steel doors
- Multiple design options
- Resistant for radiation and laser attack
- Highly sound-proof
- Multiple options to accommodate lead through the rail system Hermetically sealed gaskets and handles
- Fire and smoke resistant

Technical Specification :

Material	Powder coated or Ss304
Door size	2135mm x 915mm (Swing) 2440mm x 2440mm (Sliding)
Available control systems	Push buttons Automatic access Emergency opening
Display Unit	LED Display
Door type	Automatic Semi-automatic Manual
Panel	Ceiled edges with all resistant

OT WINDOWS

SBRG CLEAN TECH PVT. LTD manufactures and supplies Modular OT Windows of high-quality coated stainless steel and glass. We provide Modular OT Window with regular as well as electric glass.

Modular OT system all window units are double glazed, and fit flush with both surfaces of the wall panel system (45mm), standard windows are 40" high x 45" wide, with 3/16" tempered safety glass and have beveled sills on the frames. Also available are full view windows (63" x 45"), which allow for a greater view both in and out of the cleanroom. Each panel includes a layer of PVB (polyvinyl butyral) film laminated between two layers of glass. The two panels sit within a structured framework, and air fills the space between the two panels. Optional glass: 1/4" laminated, insulated, wire, tinted (UV), polycarbonate etc.

Features :

- Hermetically sealed or air-tight windows
- Double toughened glass
- Motorized Venetian blinds
- Sandwiched/toughened Frosted glass with dark film
- Easy to clean windows
- Flushing to the inside wall of the OT



Technical Specification :

Material Used	Toughened glass
Available Thickness	10mm
Resistance Control	All resistant

Technical Specification :

SINGLE SIDED WINDOW			DOUBLE SIDED WINDOW		
Construction	Nominal dimensions (In mm)	Window material	Construction	Nominal dimensions (In mm)	Window material
Framed window	14325.6x1097 2.8 10972.8x1463 0.4	Tempered glass	Framed window	14325.6x1097 2.8 10972.8x1463 0.4	Tempered glass
		Fire-rated glass			Fire-rated glass
		SDPVC			SDPVC
		Polycarbonate			Polycarbonate
		Acrylic			Acrylic
Framed window	14325.6x1097 2.8 10972.8x1463 0.4	Tempered glass	Framed window	14325.6x1097 2.8 10972.8x1463 0.4	Tempered glass
		Fire-rated glass			Fire-rated glass
		SDPVC			SDPVC
		Polycarbonate			Polycarbonate

Switch Glass Privacy Windows :

Windows that can switch between fully transparent to opaque are available for privacy inside cleanrooms. **SBRG CLEAN TECH PVT. LTD** provides international standard window panels with customized configurations ensures better security and higher durability.

OT FLOORING

Types of equipment used in operation theatre are susceptible as well as expensive. Appropriate maintenance of these equipment demands exclusive flooring. SBRG CLEAN TECH PVT. LTD manufactures and provides uniquely coated Modular OT Flooring. We offer modular floorings which are available in several colors and designs. We provide flooring for operation theatre with ISO graded materials with customized configurations to meet client's requirements.

Our flooring keeps OT germ-free and hygienic.

Epoxy is a thermosetting polymer, which is a result of a reaction that takes place between epoxide "resin" and polyamine "hardener." Epoxy is basically an adhesive with the properties as a glue that sticks things together. As mentioned earlier, epoxy is durable glue consisting of superior level of bonding properties. Epoxy floor coatings don't allow the water to stand over them and these can't be used at the places where water logging is required. Though these epoxy floor coatings can be given desired colors, shine, and durability and this is generally done by adding some compounds to the resin. And this task always demands the services by the experts who have been working with the epoxy floor coatings and know all the standards to be employed with the epoxy floor coatings.



Features :

- Professional look
- Completely Hygienic • Stain and spot proof
- Prevents the build-up of static electricity or reducing its effects
- Easy to clean • Anti-bacterial and Anti-fungal
- Chemical resistant

Technical Specification :

Material Used	Epoxy or Vinyl Flooring
Available Thickness	Standard 2mm or customized
Resistance Control	Chemical / Dust / Bacteria / Fire

Technical Specification :

VARIABLES	SPECIFICATIONS
Total thickness	2 mm
Roll dimensions (WxL)	2x20 mm
Tile format	608x608 mm
Fire rating	Bfl-s1
Slip resistance	R9
Static electrical propensity	<2000V
Electrical resistance	>1011 Ω
Particulate cleanability	85.66% reduction in particle contamination
The action of micro-organism on the	Inert and resistant

OT CEILING

SBRG CLEAN TECH PVT. LTD provides the specially designed ceiling panels for OT to maintain the clean and sterile environment. OT ceiling panels are highly durable, fire resistant. The ceiling of clean room and modular OT has an antimicrobial coating.

Technical Specification :

VARIABLES	SPECIFICATIONS
Material	Wet formed a mineral fiber with a durable acoustically transparent membrane
Edge finish	Paintsealed for improved cleanroom performance
Coating	Antimicrobial
NRC	0.70
CAC	CAC 41
Temperature range	0°C-49°C
Humidity	RH 99%
Thermal insulation	0.40 m ² k/W
Weight	5.28 kgs/m ²
Colour	White



OT LIGHTING

SBRG CLEAN TECH PVT. LTD provides highly efficient, clean and bright lights for modular operation theatre. We use the fluorescent and LED lights that are having customized dimensions and configurations.

Florescent Lights Features :

- Highly durable fluorescent lights
- Customized dimensions and configuration
- Certified with ISO standards for cleanliness
- Total lumens up to 3150

VARIABLES		SPECIFICATIONS	
Power		49-77W	
Ceiling grid (module length)		300-600 mm	
Light source		Replaceable LED	
Mains voltage		220V/50-60Hz	
Ceiling type		Exposed T-bar ceiling	
Colour		White	
Color rendering index		>80	
Average life		25,000-70,000 hours	
Driver failure rate		1% per 5000 hours	
mbient temperature		+25 °C	
Operating temperature range		-20°C to + 35°C	
Connection		Push in connector	
ISO class		2-9 Fraunhofer certified	
Certification		Ip65	
Housing material		Sheet steel	
Cover material		Tempered glass	
Internal optic material		Aluminum	
Heatsink		Aluminum sheet steel	
LED type		Square LED	Rectangular LED
Luminous flux (In lm)		3600, 3900, 6000, 6300	6000, 6300
Color temperature		3000 or 4000 k	3000 or 4000 k
Initialluminaire efficiency		109- 120 lm/W	109- 120 lm/W
Luminous flux tolerance		+/- 10%	+/- 10%
Dimensions		596x596 mm	1196x296 mm

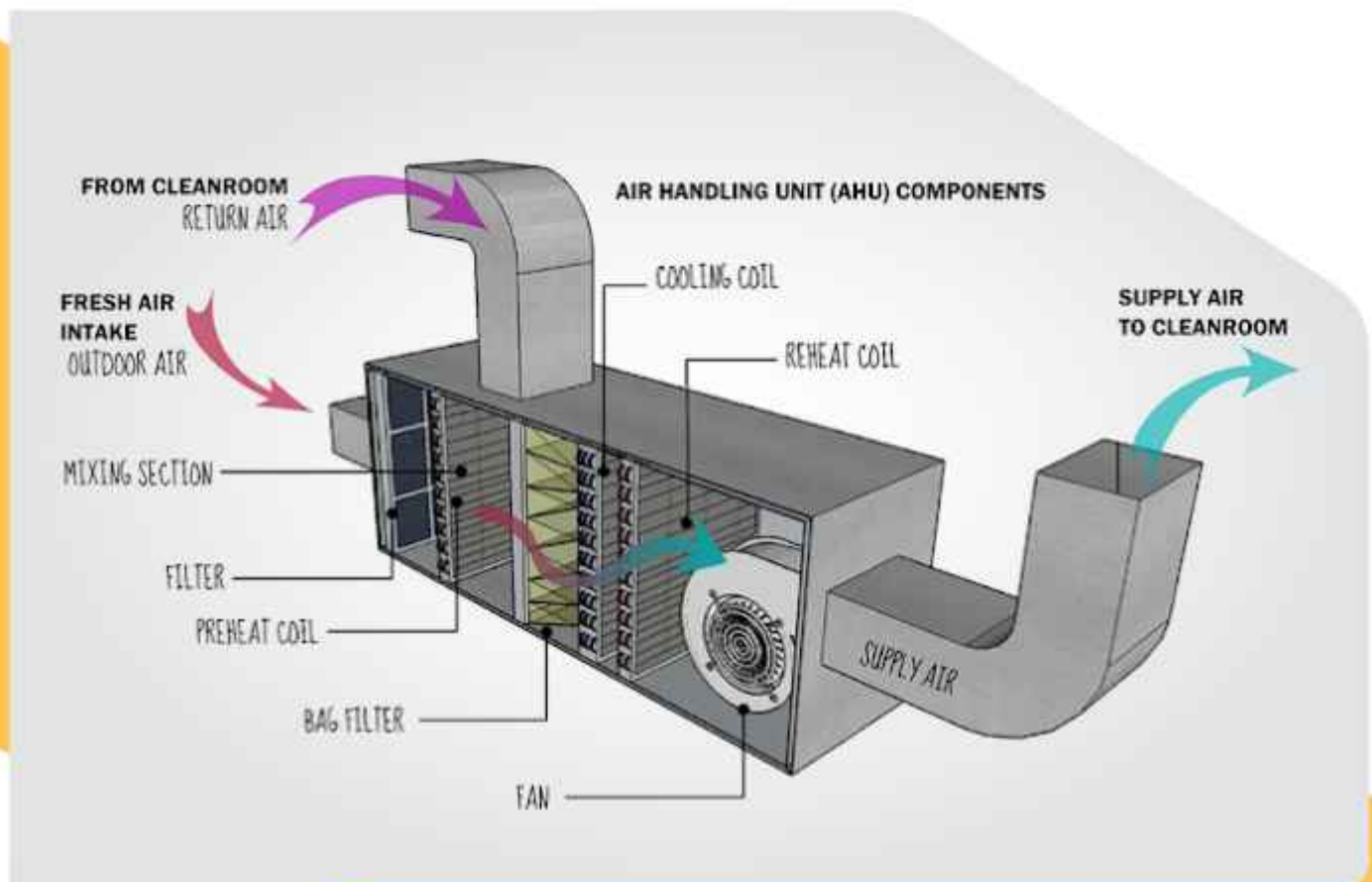
AIR HANDLING UNIT

SBRG CLEAN TECH PVT. LTD offers chilled water and DX-type of Air Handling Unit. AHU is used to serve conditioned air with temperature and humidity control and filtration unit for regulating particle count as per industry requirement. The optimized arrangement of mechanical and dynamic-flow components ensures low speeds and internal pressure losses.

SBRG CLEAN TECH PVT. LTD Airtech produces the new products based on your drawings or designs to meet your actual needs. All the dimensions and colours are up to your choice. We will keep you noted of each steps during the production process. We offer Air Handling Unit system comprises a large insulated metal box that contains cooling, heating, humidity and air quality control element, fan blower with motor. In Clean room Application air quality is most important factor to maintain required Class, AHU is the greatest source of particulate removing it installed between unfiltered air and filtered air

Key Benefits :

- Flexibility Design
- Humidity Control
- Adjustable Air Flow Velocity
- Temperature Control
- Low Vibration



Specifications :

High-quality Air-conditioning

Temperature Control

Frame Structure

Filtration

Quality Control

Temperature Control

Cooling Coil: High-quality air-conditioning 12.7 mm copper heat exchange tube hydrophilic aluminum foil corrugated sheet via mechanical expansion

Heating Coil (as per requirement)

- The structure of the cooling fin is 1/2 inch copper heat exchange tube and corrugated aluminum fin expand connecting, so have high heat exchange efficiency and small wind rage.
- Free flow aluminum fin configuration provide excellent heat transfer capability with low airside pressure drop.
- Copper tube with anti corrosive coating expanded mechanically to the above fins ensure efficient transfer

Pressure gauge:

Dwyer make pressure gauge range 0 to 50 mm to ensure required efficiency of HEPA filter.

Filter:

- Multi stage filtration to suit different application conforming to ASHRAE standards
- Separate primary, secondary and HEPA filter section provided.
- Primary filter are flange type provided with handles for easy removing and washable.
- Secondary and HEPA filter section are provided with access door panel with positive locking.

Control Panel:

DX Unit:

SBRG CLEAN TECH PVT. LTD provides both air-cooled and water-cooled dx units. These DX units comfort the environment inside the operation theatre. We have designed DX units to meet cleanliness and sterile requirements by following NABH guidelines. Fan:

- Electrical motor of TEFC type with class F insulated
- All wheels are statically and dynamically balanced to ISO1940 and AMCA204/3 – G2.5 Standards
- Air and sound performance ratings are test in accordance to AMCA210 and AMCA300 Standards.

OT CONTROL PANEL

SBRG CLEAN TECH PVT. LTD's handy, touch-sensitive and smart control panels are the best suitable for modular operation theatre. Clear image and wide viewing angle aids in critical operating situations. SBRG CLEAN TECH PVT. LTD's modular OT panel is integrated with the all technical equipment and acts as a central control system for OT. We provide Tile Membrane type control panel with superior quality UV resistant membrane fascia and sterilizable feature.

Features :

- Separate tiles for a time day
- Time elapse clock
- Control on temperature and humidity
- The medical gas alarm panel
- HEPA Filter status
- Control over air pressure, velocity, and general lighting



Technical Specification :

VARIABLES	SPECIFICATIONS
Supply voltage	230V/50-60Hz
Power consumption	<30VA
Size	15" TFT
Pixel	0.297 x 0.297 mm
Resolution	1024x768
Maximum image area	304x228 mm ²
Brightness	450 cd/m ² min.
Contrast	700:1
Viewing angle	80°
Background light	16,2 Million
Response time	25 ms
CPU	Atom 1.1 Ghz
RAM	2 GB
Mass storage	2 GB (Compact flash type)
Interface	4 x USB, HD Audio
Graphics	DVI
LAN	1x 10/100/1000 MB/s
Input current	700 mA

Upcoming USFDA/EU GMP compliant plant in Halol, Gujarat



Our Offices



CORPORATE OFFICE



FARIDABAD PLANT



R&D UNIT



BRAWN BIOTECH LTD.

Our Global Offices

• Bolivia • California USA • Dubai • Myanmar • Panama • Philippines • Uzbekistan • Vietnam

Our Locations

Corporate office :

Plot no. -30, Sec.- 33, Near Hero Honda
Factory, Gurugram- 122001 (Haryana) INDIA
Ph: +91-124-4666152, 4222462
Email: info@brawnlab.in

R & D Unit :

Plot No. 46, Sector -37, Pace city – 1,
Gurugram – 122001, (Haryana) INDIA

Regd. & Logistic Office:

2nd Floor, C-64, Lajpat Nagar – 1,
New Delhi – 110024, INDIA
Tel : +91-11-29815331

Formulation Plant-I:

13, Industrial Area, N.I.T.
Faridabad- 121001, (Haryana) INDIA,
Ph: +91-8010416849/48

Formulation Plant – II:

GIDC Halol – 2 , Village : Maghashar,
AT& PO- Madhvas, Tal. Halol- 389350,
Dist. PanchMahals, Gujrat, India

API Plant – I :

Plot No. D2/CH/102, GIDC Industrial
Estate, Dahej – 2, Bharuch – 392130,
Gujrat, India

API Plant – II :

Plot No. D2/CH/359, Dahej Industrial
Estate, Bharuch – 392130, Gujrat, India