**Class I
Biological Safety Cabinet
(BSC)**

✔ Superior Biological Protection for Personnel and Environment

✔ Spacious Work Area

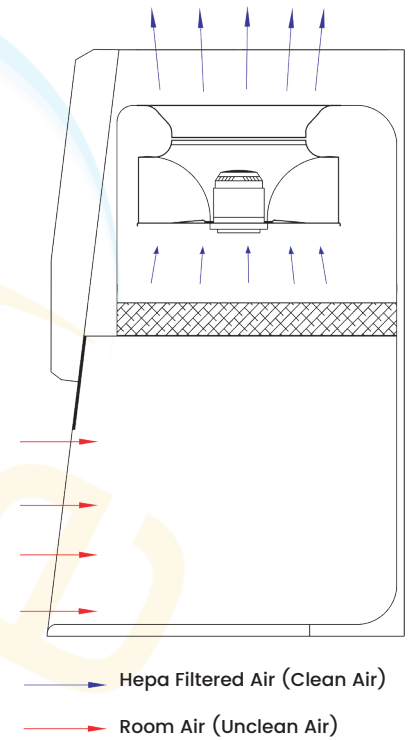✔ Ergonomic Design

✔ Low Noise Level

EN12469

ISO 14644

CE

CLASS I BSC AIRFLOW DIAGRAM

Unidentified materials or contents of the danger level are provided in Class I BGK to protect the personnel and the environment.

Metisafe Class I BSC works with HEPA filtration principle. The room air is taken into the cabinet at 0.50 m/sec (± 10%) from the sash window opening and passed through HEPA filtration, and clean particle free air is supplied to the indoor environment.
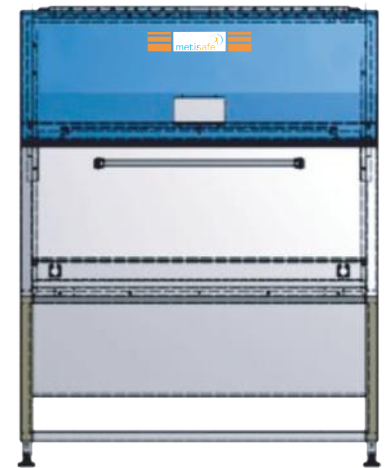
The Class I BSC is designed so that the cabinet workarea will be dead space free and will not disturb the air flow pattern.

→ Hepa Filtered Air (Clean Air)

→ Room Air (Unclean Air)

Isolated electrical components assembly from contaminated zones, easy to reach for servicing.

Automatic filter compensation, cruise control airflow rate. Energy efficient high performance EC fan technology
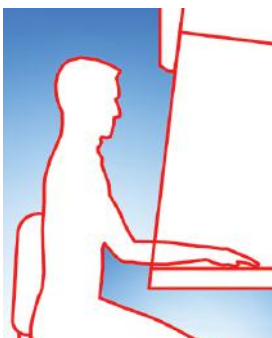
Continous work suitable HEPA Fan/Filter Unit

Angled front panel for work comfort and increased working chamber vision

Advanced filter compensation system keeping steady air velocity under increased filter resistance
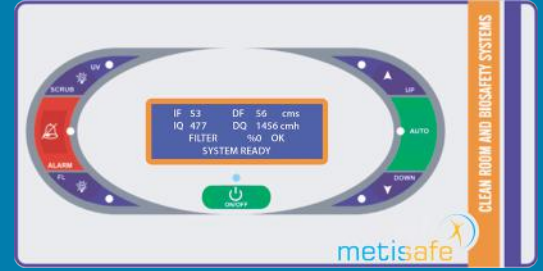
Motorized sash window (Optional)

Ergonomic Design   **Negative Plenum Technology**

DOP Test Ports

Low Noise Level

254 nm UV Lamp

Homogenous illumination

Low Energy Consumption

MICROPROCESSOR CONTROL UNIT

Easy adjusted working parameters by touch pad control panel Continous airflow velocity measuring sensors and cruise controlled automated airflow rate adjustment Audio and visual alarm activation on airflow rate changes Manually cancellable alarm Real time information available large LCD screen: Airflow velocity, Airflow rate, Total work time, UV and fluorescent lamp work time, Alarm activation memory data, Filter change periods, Filter integrity state, Alarm activation log data

Automatic Cruise Control Air Velocity

Personnel / Environmental protection under homogeneous and speed controlled laminar airflow

Contamination proof antimicrobial coated steel main body frame

0.3 µm≥ particle filtration efficiency ≥ %99.995

Pre-filter and H14 HEPA/ULPA filters for large particles

Optional auto set-up available motorized sash window

Stainless steel work cabinet rear wall

IP54 electrical socket

Gas and Vacuum valve connection inputs

Optional LED lighting

Easy filter change & maintenance

Metisafe technical service quality and guarantee

Ergonomic and comfortable working area

Special design fan filter unit with low noise level

Quiet and highly efficient Fan Motor

METİSAFE CLASS I BIOLOGICAL SAFETY CABINET TECHNICAL SPECIFICATIONS

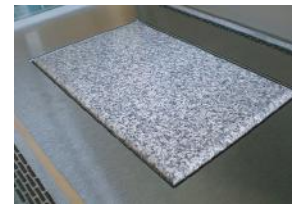| MODEL		MSC-I-90	MSC-I-120	MSC-I-150	MSC-I-180
Internal Dimensions (WxLxH) mm		875x680x720	1180x680x720	1485x680x720	1790x680x720
External Dimensions (WxLxH) mm		995x833x1372	1300x833x1372	1605x833x1372	1910x833x1372
Support Stand (WxLxH) mm		995x793x785	1300x793x785	1605x793x785	1910x793x785
Air Flow (m3/h)		777	1036	1321	1581
Working Table Height from Ground		855 mm			
Air Speed (m/s)		0.50 ± 10%			
Filter Types (EN 1822)	Main Filter	High Capacity H14 HEPA, 0,3 μm particle %99.995 filtration efficiency			
	Pre Filter	F5			
Working Table	Standard	304 Stainless Steel			
	Optional	316L Stainless Steel			
Sash window (cm) (Optional)	Preset/Std	200 ± % 10 mm			
	Max Height	530 ± % 10 mm			
Sash Window		≤ 6 mm Laminated			
Electrical socket voltage and frequency		220 - 240 VAC / 16A			
Supply Voltage / Frequency / Power / Current		230 VAC / 50 Hz / 2500W / 16A			
Working Area Illumination (Lux)		850 - 1250 Lux			
Noise Level	Normal Mode	≤ 56 dB(A)	≤ 56 dB(A)	≤ 58 dB(A)	≤ 62 dB(A)
	Eco (Stand by) Mode	≤ 50 dB(A)	≤ 50 dB(A)	≤ 50 dB(A)	≤ 52 dB(A)
Power Consumption	Fan Filter	105 W	200 W	170 W	200 W
	Illumination	50 W	50 W	50 W	50 W
	UV Lamp	30 W	30 W	30 W	30 W
Pack/Palette Dimensions (WxLxH) mm		1270x970x1770	1575x970x1770	1880x970x1770	2185x970x1770
Weight (kg), without support stand/storage cupboard		160	190	220	280
Main Body & Design Parameters		Antibacterial Poliester paint Coated Steel, < 7^0 angle sloped front panel for work comfort and increased working chamber vision, Easy reachable electronic control & electrical part protection inside at front panel isolated from working chamber, UV Resistant tempered glass			
Microprocessor Control Unit & Display Parameters		One key touch on-off, Inflow Air Velocity/Airflow Rate, System Ready/Not-Ready message/warning, HEPA Filter Life (percent), Normal/Stand-by option button, Total working Time, UV and FL Lamp working times, UV ve FL lamp on-off and timer setting, Optional: Motorized sash window level position setting / Sash window position message / One key sash window preset position / Automatic UV Lamp-Off protection at sash window opening /Automatic Stand-by status at sash window closure, Password protected technical service key			
Audio-Visual Alarm Parameters		Audible and Visual Alarms for Air Flow/Rate System ready/not-ready information, Filter/Lamps replacement warning, Service need warning, Alarm cancel button, Unproper sash window position warning			
Quality and Certificates		CE, Management certificate of ISO9001, Biological Safety Cabinets EN 12469, EN61010 Electrical and Electronic safety compatibility, Accredited test company validation guarantee (When installation made by Metis or by its certified technical personnel)			
Optionals		High Capacity HEPA Filter, ULPA Filter, Carbon Filter, Canopy Connection, Manual or Semi Automatic decontamination, Height adjustable support stand, Biocidal surface coating material, Key-lock protection switch, Lux adjustable illumination, Work chamber Hanger apparatus, Anti-vibration weighing balance table, Heater & Microscope Assembly Base,			

Microincinerator

Gas / Vacum Valves

continous radiused corners

IP 54 Electrical Socket

Anti-vibration weighing balance table

ACCESSORIES

Microincinerator, Flame duster with automatic sensor, Gas valve, Vacuum valve, Working cabinet temperature control, Clean room chair, Disinfectant dispenser, UV protection cover, Arm support