metisafe
CLEANROOM & BIOSAFETY

METİSAFE CLASS III BIOLOGICAL SAFETY CABINET

- Superior Biological Protection for Personnel, Product / Material and Environment
- Suitable for Working with Agents Assigned to Biological Risk Group 2-4
- Min. Class 100 (FED209E) / ISO 5 (EN14644) Cleanliness Class Work Area
- Ergonomic Design
- Low Noise Level

ISO 14644

CE

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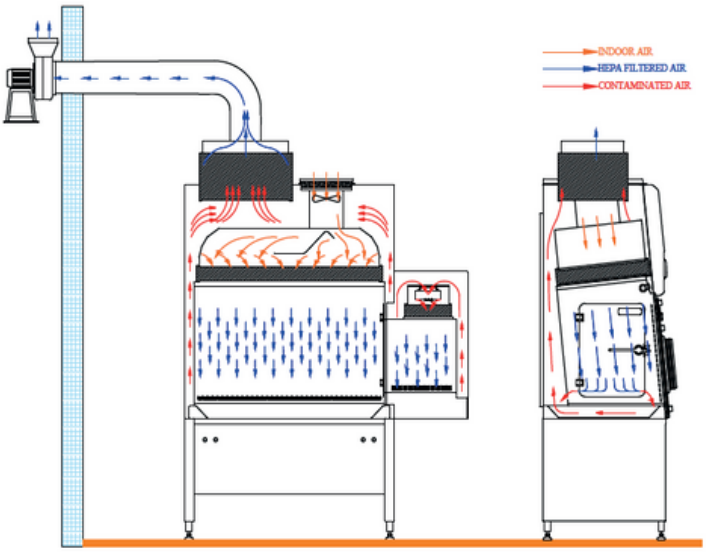
“Class III Biological Safety Cabinet (BSC) is a fully isolated physical barrier which allows work material manipulations through air-tight glove ports assembled on the front window and material transfers through dynamic pass-boxes”

CLASS III BSC AIRFLOW DIAGRAM



Metisafe Class III BSC works under principles with fresh air supply taken from the indoor environment to the work chamber and pass-box through pre/ HEPA filtration. Exhausting of contaminated cabinet air to the outer atmosphere after HEPA filtration also protects the environment. That airflow pattern of BSC Class III provides safe work with biological risk group 3/4 agents and also with cytotoxic gas & materials if assembled with optional carbon filters. Total air in the work chamber is fully purged to the exhaust air ducts without recirculation. Exhausting to the outer atmosphere is accomplished by the help of an endpoint blower fan. Controlled air exhausting keeps work chamber and cabinet under negative pressure. In addition to the primary air-barrier accomplished by negative pressure within the work zones, double-wall negative plenum design of the Metisafe BSCs prevents particle escape to surroundings and zero leakage is ensured.

Main Body and Design Features

- Sealed main body covered with antibacterial electrostatic paint on steel,
- <7° tilted front panel for increased operating cabin visibility and ergonomic working comfort
- Electronic control panel protected by exclusion from the work chamber
- UV resistant glass
- Air-tight glove ports air-tight glove ports

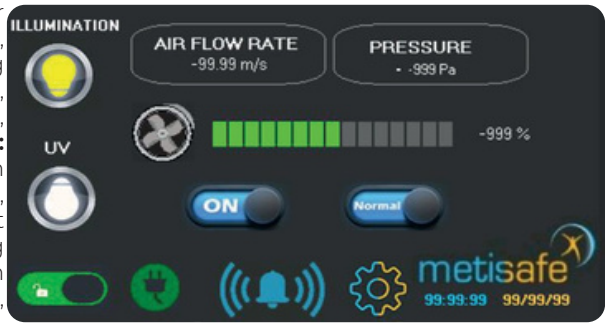
- Homogenous and cruise control airflow
- Advanced filter compensation system keeping steady air velocity under increased filter resistance
- Continous work suitable negative plenum Fan Filter Unit
- Active pass-box with rounded corner glass-lids and inter-lock feature
- Timer controlled effective disinfection by UV Lamp
- D.O.P test ports

Glove

- Chemical or disinfection resistant
- High impermeability
- Good mechanical properties
- Resistant to ozone or UV rays
- Flexible handling and operation
- Long sleeve or Sleeve/Glove system options

MICROPROCESSOR CONTROL UNIT

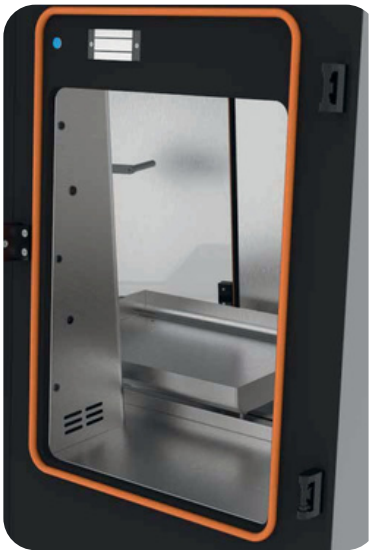
Color Screen Touch Control Panel: Password protected user interface, Device on/off button, Standby/Normal modes button, UV and illumination lamp, On/Off buttons, UV lamp operating while in Standby mode, User interface password change, Password protected technical service maintenance/calibration, Date and time information **Audio-Visual Warning System:** Audible visual alarm button and temporary mute, Exhaust fan error warning, Pressure warning, Improper air velocity warning, Filter, pre-filter and UV lamp replacement warning, Front window open warning, Technical service maintenance warning **Large Information Display:** Downflow Air velocity rate, Fan working capacity, Fan working diagram, UV lamp timer setting, Cabinet, UV and pre-filter running times, Pressure value



Control panel main display screen

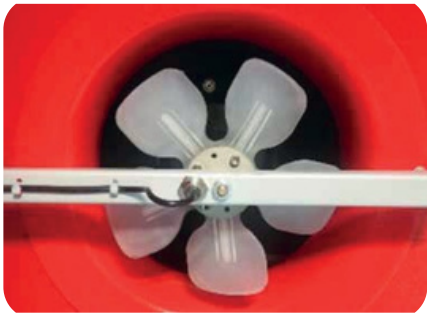
Material Transfer
Sliding Tray System

Removable or sterilization available partited, stainless stell work plate



Active Pass-Box

- Electromagnetic inter-lock system
- Stainless steel inner surface with wide angle radiused corners
- Increased safety with rounded corner tempered glass lids



Energy efficient high performance EC fan technology
Automatic filter clogging compensation, cruise control airflow rate

Magnehelic work chamber negative pressure gauge

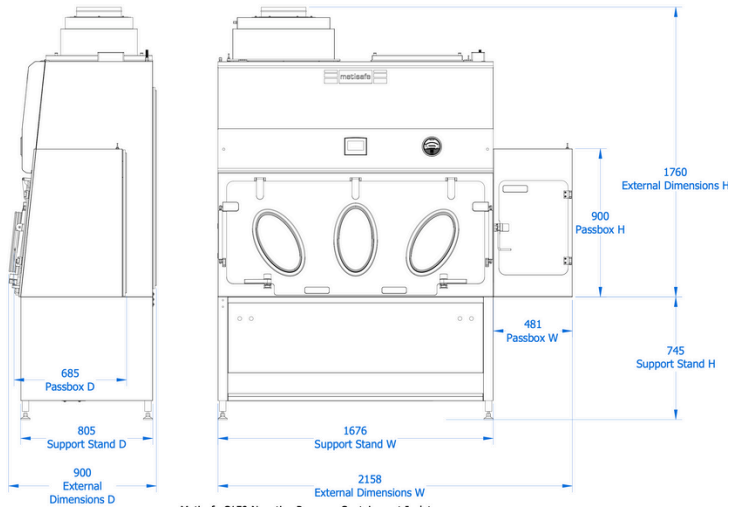
OPTIONS

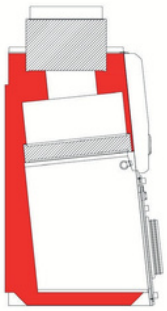
MOP.ADI	Adjustable Illumunation
MOP.PPR	Process Parameter Recording System
MOP.HTS	Humidity/Temperature Sensor
MOP.RES	Remote Access
MOP.CFL	Carbon Filter
MOP.CFL.EU4	Active Carbon Impregnated Pre-filter
MOP.FLT.ULP	ULPA Filter
MOP.PMS	Particle Measure System
MOP.BWT	Precision Balance with Vibration Damping Weighing Table
MOP.WCS	Working Cabinet Suspension Apparatus (IV Bar)
MOP.MDS	Manuel Decontamination System
MOP.SDS	Semi-Automatic Decontamination System
MOP.FDS	Fully-Automatic Decontamination System

ACCESSORIES

MAC.UVC	Portable Germicidal UV Lamp
MAC.MIS	Microbiological Air Sampling Apparatus
MAC.UPS	Uninterruptible Power Supply (UPS)
MAC.ADH	Acrobat Document Holder
MAC.AMH	Acrobat Monitor Holder
MAC.INC	Incinerator
MAC.DID	Disinfectant Dispenser
MAC.ECM	Document/Equipment Cleaning Module
MAC.VLF	Service Valves
MAC.FOS	Foot Stand

METİSAFE CLASS III BIOLOGICAL SAFETY CABINET TECHNICAL DRAWING





Plenum cast design creates negative pressure around contaminated work area and ensures zero leakage

MODEL		MSC-III-120	MSC-III-150
DIMENSIONS and WEIGHT			
Internal Dimensions (WxDxH) mm		1250 x 620 x 700	1555 x 620 x 700
External Dimensions (WxDxH) mm		1853 x 900 x 1760	2158 x 900 x 1760
Support Stand Dimensions (WxDxH) mm		1371 x 805 x 745	1676 x 805 x 745
Pass-Box External Dimensions (WxDxH) mm		481 x 685 x 900	
Working Table Top - Floor Height		840	
HEPA FILTER and AIRFLOW DYNAMICS			
Work Chamber Pressure		-125 Pa	
Filters (EN 1822)	Pre-filter	EU4	
	Main Filter	H14 HEPA, 0,3 µm particle %99.995< filtration efficiency	
	Exhaust Filter	H14 HEPA, 0,3 µm particle %99.995< filtration efficiency	
Work Chamber Cleanroom Class	EN ISO 14644-3	< ISO 5	
	US FED 209E	< Class 100	
Standard Exhaust Fan Motor Capacity		Suitable for 7 m Horizontal and 3 m Vertical air duct	
ENERGY			
Energy Consumption 230 VAC - 50 Hz	Exhaust Motor (Max)	500 W	520 W
	Illumination Light Density	40 W	45W
	UV Lamp	30 W	36 W
	Electrical Socket Power / Current	2x1150 W / 2x5 A	
Total Power / Current (Max)		570 W / 2.49 A	601 W / 2.61 A
Power Consumption Under Normal Operating Conditions (Illumination and Fans)		210 W	330 W
ERGONOMICS and COMFORT			
Noise Level	Operation Mode	< 56 dB(A)	
	Standby Mode	< 50 dB(A)	
Illumination (Adjustable)		850 – 1250 Lux	
WORKING AREA			
Work Bench	Standard	304 Stainless Steel	
	Optional	316 Stainless Steel	
Front Window Thickness		10 mm	12 mm
Front Glass Glove Port Quantity		2	3
QUALITY and CERTIFICATIONS			
CE, ISO9001-2015 Quality Management Certificate, ISO14644 Cleanroom Class Compatibility, EN61010 Electric and Electronic Safety Compatibility, Accredited Testing Institution Validation Guarantee in case the installation is opareted by Metisafe® Certified Technical Personnel			

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