

BIOLOGICAL SAFETY CABINET CLASS II TYPE B2

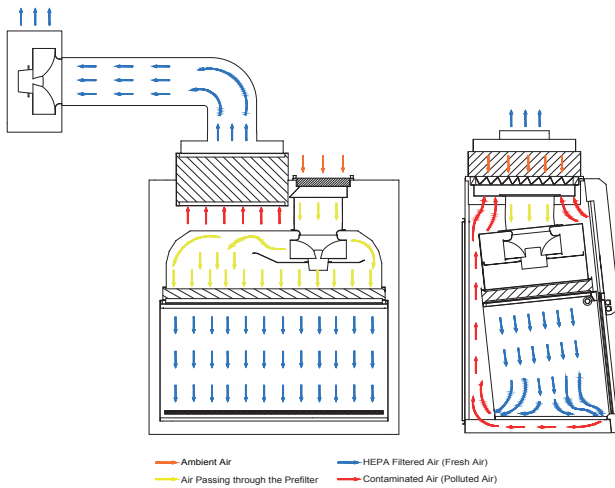
- Superior Biological Protection; Personnel, Product/Material and Environment
- Suitable for Working with Agents Assigned to Biological Risk Level 2+/3
- Min. Class 100 (FED209E) / ISO 5 (EN14644) Cleanlines Class Work Chamber
- Ergonomic Design and Spacious Work Chamber
- Validation Guaranteed Biological Safety



EN 12469

“Class II Type B Biological Safety Cabinets (BSC) work under principles of particle filtration, air exhaustion and keeping the air barrier area under negative pressure”

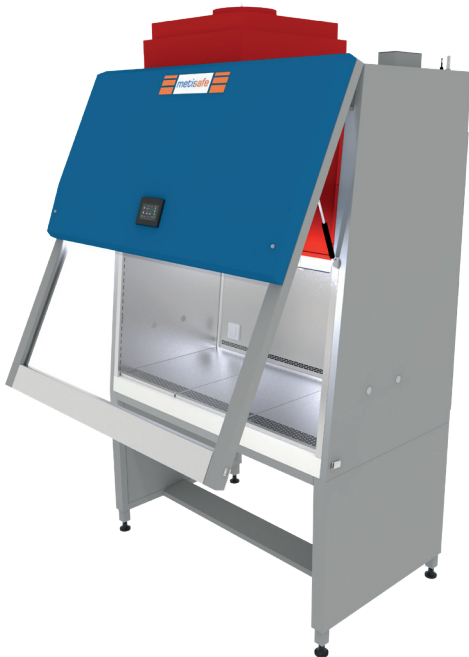
AIRFLOW DIAGRAM



Metisafe® Class II type B2 Biological Safety Cabinets works under principles with full exhaust of Pre/HEPA filtered fresh air to outer atmosphere without recirculation. Exhausting through HEPA filter protects also environment. Those Airflow principles of Class II type B2 cabinets provide safe work with biological risk level 2+3 agents and also with cytotoxic gas & materials. The room air is pulled in through the perforations located at front of the work plate and directed to blower plenum (inflow air). This airflow direction prevents reaching dirty air to materials over the working plate. Pre/HEPA filtered air supplied through top of the cabinet provides the work area protecting the work zone under ISO-5 class laminar airflow. Total air in the working cabinet fully exhausted without recirculation through exhaust blower fan to atmosphere by keeping working area under negative air pressure. In addition to primary air barrier accomplished by negative pressure within the working zone double wall negative plenum design of the Metisafe cabinet prevents particle escape to surroundings and zero leakage is ensured.

Main Body and Design Features

- Main body from antibacterial electrostatic paint coated on steel
- <7° angle back sloped front panel for work comfort and increased work chamber vision
- 26° openable front panel for easy work chamber cleaning
- Easy reachable electronic control & electrical part located inside at front panel isolated from work chamber
- UV resistant glass
- Homogenous and cruise control airflow
- Advanced filter compensation system keeping steady air velocity under increased filter resistance
- Negative plenum Fan Filter Unit suitable for non-stop operation
- Auto setup available motorized front window
- Homogenous illumination
- Timer controlled effective disinfection by UV Lamp
- D.O.P. test ports

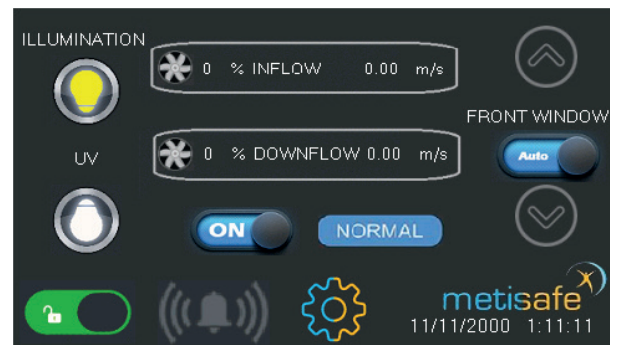


MICROPROCESSOR CONTROL UNIT

Color Screen Touch Control Panel: Password protected user interface, Device on/off button, Standby/Normal modes operation indicator, Motorized front window level adjustment and one-button automatic front window level adjustment, UV and illumination lamp On/Off buttons, Automatic switch to Standby mode and UV lamp operation when the windshield is closed, The front window system that opens when the proper air velocity conditions at the opening of the cabinet, Unable to turn the device off without closing the front window, 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, Improper front window position warning, Improper air velocity warning, Filter, Pre-filter and UV lamp replacement warning, Technical service maintenance warning

Large Information Display: Downflow/Inflow Air velocity rate, Fan working capacity, UV lamp timer setting, Cabinet, UV and illumination running times



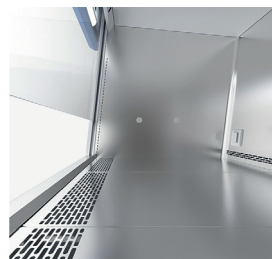
Control panel main display screen



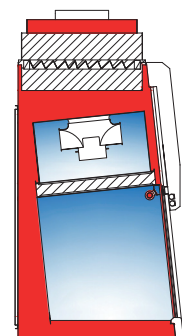
Monoblock operable and easy to clean front panel



Easy access, isolated control unit from the contaminated area



Removable or sterilization available partied, stainless steel work plate



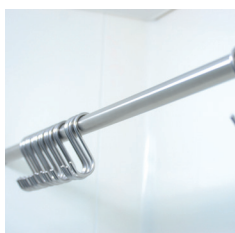
Plenum cast design creates negative pressure around contaminated work area and ensures zero leakage



CAT #	OPTIONALS
MOP.ADI	Lux Adjustable Illumination
MOP.FWS	Front Window Motion Safety 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
MOP.MDS	Manual Decontamination System
MOP.SDS	Semi-Automatic Decontamination



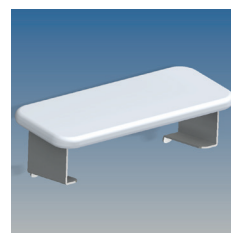
CAT #	ACCESSORIES
MAC.UVC	Portable Germicidal UV Lamp
MAC.MIS	Microbiological Air Sampling Apparatus
MAC.ASA	Arm Support Apparatus
MAC.UPS	Uninrerruptible Power Supply (UPS)
MAC.ADH	Acrobat Document Holder
MAC.AMH	Acrobat Monitor Holder
MAC.INC	Incinerator
MAC.DID	Disinfection Dispenser
MAC.ECM	Document/Equipment Cleaning Module
MAC.VLF	Service Valves
MAC.FOS	Foot Stand



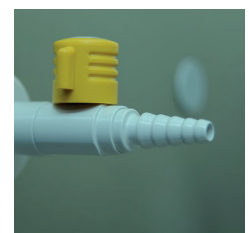
Working Cabinet Suspension Apparatus (IV Bar)



Incinerator

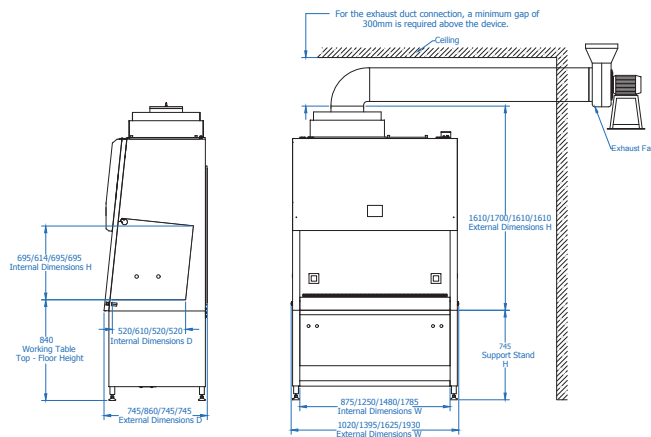


Arm Support Apparatus



Service Valves

METISAFE CLASS II TYPE B2 BIOLOGICAL SAFETY CABINET TECHNICAL DRAWING



METISAFE CLASS II TYPE B2 BSC TECHNICAL SPECIFICATIONS

Model	MSC-IIB-90	MSC-IIB-120	MSC-IIB-150	MSC-IIB-180
DIMENSIONS and WEIGHT				
Internal Dimensions (WxLxH) mm	875 x 520 x 695	1250 x 610 x 614	1480 x 520 x 695	1785 x 520 x 695
External Dimensions (WxLxH) mm	1020 x 745 x 1610	1395 x 860 x 1700	1625 x 745 x 1610	1930 x 745 x 1610
Support Stand (WxLxH) mm	996 x 702 x 745	1371 x 810 x 745	1601 x 702 x 745	1906 x 702 x 745
Working Table Height	840 mm			
Cabinet Weight (kg)	185	230	254	285
Support Stand Weight (kg)	29	39	37	41
Packaged Total Weight (With Support Stand) (kg)	270	320	350	375
Pack/Palette Dimensions (With Support Stand) (WxLxH) mm	1105 x 1025 x 2000	1475 x 1100 x 2000	1700 x 1025 x 2000	2030 x 1040 x 2000



HEPA FILTER and AIRFLOW DYNAMICS

Airflow Velocity	In Flow	≥ 0.40 m/s
	Down Flow	0.25 - 0.50 m/s
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
Working Area Cleaning Class	EN ISO 14644-3	< ISO 5
	US FED 209E	< Class 100
Exhaust Fan Motor Capacity	Suitable for 10 m Horizontal and 3 m Vertical Air Duct length	



ENERGY

Energy Consumption 230 VAC- 50Hz	Fan Filter Unit	530 W	550 W	590 W	600 W
	Illumination	18 W	36 W	36 W	36 W
	UV Lamp	18 W	30 W	36 W	36 W
	Electrical Socket Power/ Current	2x1150 W / 2x5 A			
Total Power / Current	2483 W / 10.8 A	2868 W / 12.5 A	2916 W / 12.7 A	2966 W / 12.9 A	
Power Consumption Under Normal Operating Conditions (Illumination and Fan Motor)	400 W	450 W	550 W	600 W	



ERGONOMICS and COMFORT

Front Window Aperture	Standard-Preset	200 ± 10 mm
	Max Height	440 ± 10 mm
Noise Level	Normal Mode	≤ 65 dB
Illumination		≥ 750 Lux



WORKING AREA

Working Table	Standard	304 Stainless Steel
	Optional	316 Stainless Steel
Front Window Thickness		≥ 6 mm



QUALITY and CERTIFICATIONS

CE, ISO9001-2015 Quality Management Certificate, Biological Safety Cabinets EN12469, ISO14644 Cleanroom Class Compatibility, EN61010 Electric and Electronic Safety Compatibility, Accredited Testing Institution Validation Guarantee in case the installation is operated by Metisafe® Certified Technical Personnel