



BIOLOGICAL SAFETY CABINET CLASS II TYPE A C SERIES



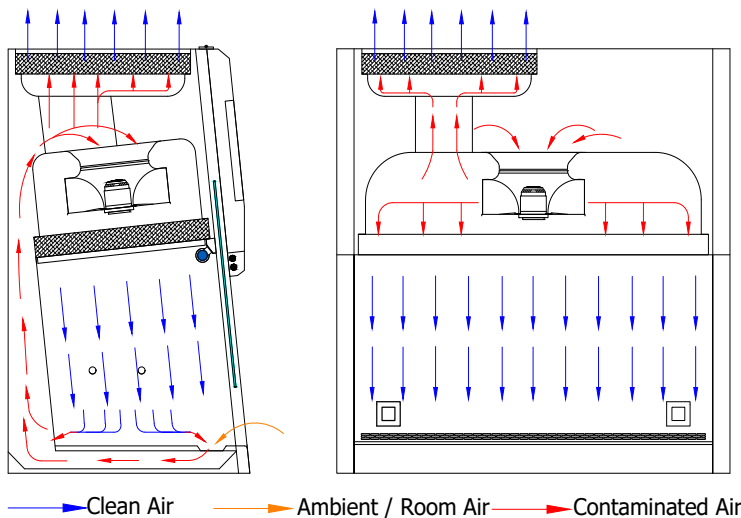
EN12469



- Superior Biological Protection; Personnel, Product/Material and Environment
- Min. Class 100 (FED209E)/ISO Class 5 (EN14644) Cleanlines Class Work Chamber
- Ergonomic Design and Spacious Work Area
- Validation Guaranteed Biological Safety

“Class II Type A Biological Safety Cabinet (BSC) works under principles of air circulation and air filtration by keeping the workstation under negative air pressure”

AIRFLOW DIAGRAM



Metisafe®biological safety cabinets recirculate 70% (-/+5%) of the device’s total air. After passing through the main HEPA/ULPA filter, the clean air flows down to the work chamber. The 30% (-/+5%) of the total air is exhausted out of the cabin after passing through the exhaust HEPA filter at the top of the device. The indoor environment’s intaken air is passed through the air grills in the front section of the workbench and directed to the fan unit. Those air barriers prevent the reach of dirty indoor air into the workbench. Both intaken and recirculated total air inside the device is collected in the fan section. Then it passes through the pre-filter (optional), main HEPA filter and laminarizator, and protects the work material by providing ISO-5 cleanliness class laminar airflow. The primary air barrier occurs in the work chamber and the negative plenum structure surrounding it. The air in the cabin is prevented from reaching the user, including possible accidents, and a zero leakage workstation is provided.



Main Body and Design Features

- * Antibacterial epoxy powder paint coated steel
- * <7° angle back sloped front panel for work comfort and increased working chamber vision
- * <30° Openable front panel for easy working chamber cleaning
- * Easy reachable electronic control & electrical part located inside at front panel isolated from work chamber
- * UV resistant laminated 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
- Contamination proof antimicrobial coated steel main body frame
- Auto setup available motorized sash window
- Homogenous illumination
- Timer controlled effective disinfection by UV Lamp
- D.O.P. test ports

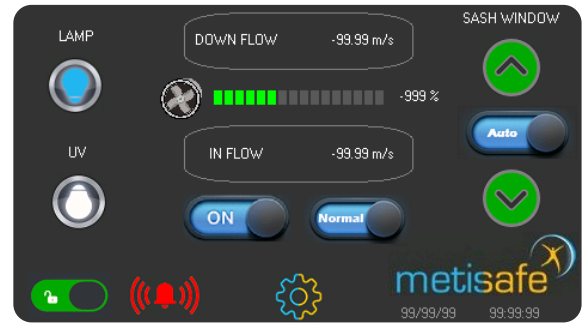


MICROPROCESSOR CONTROL UNIT

Color Screen Touch Control Panel: Password protected user control, power on/off, Stand-by/Normal mode operation button, motorized sash window level position setting and one key sash window preset position, UV and FL on-off button, UV activation and automatic switch to stand-by mode only after fully closed front window, user interface password change, password protected technical service maintenance / calibration, Date and time information

Audio-Visual Warning System: Unproper sash window position, unproper air velocity, filter and UV lamp replacement, technical service maintenance warnings, alarm silence button

Large Information Display: Downflow air velocity / airflow velocity rate, filter life (percent), fan capacity diagram, UV and FL lamps working times, UV lamp timer setting, total working times



Control panel main display screen



Monoblock openable and easy to clean front panel



Easy access, isolated control unit from the contaminated area



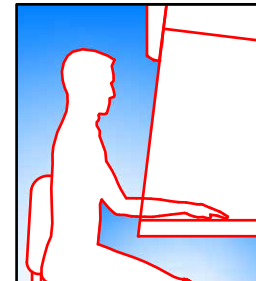
Energy efficient high performance EC fan technology Automatic filter clogging compensation, cruise control airflow rate



Scratch-proof stainless steel, monoblock interior cabinet surface with easy to clean continuous radiused corners



Removable or sterilization available partited, stainless steel work plate



Back sloped front panel design according to anthropometric rules provides increased viewing angle, operator comfort and ergonomic for long period of works

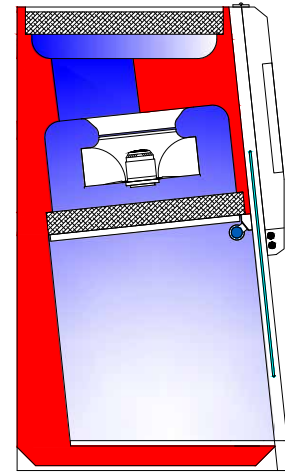
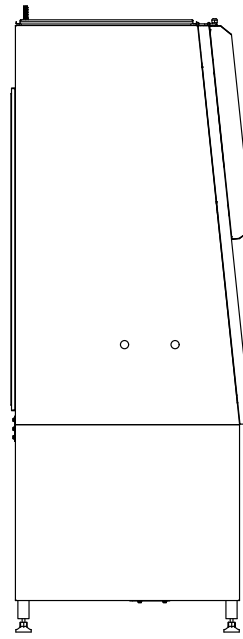
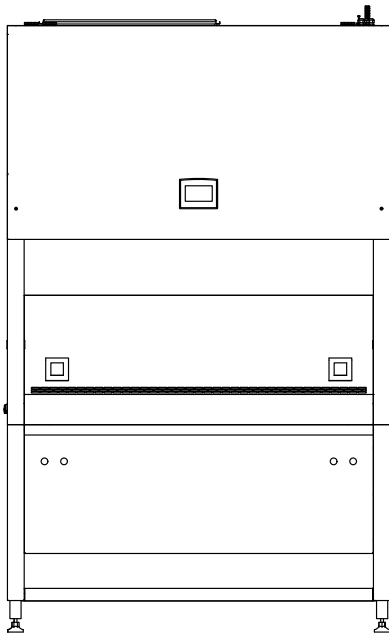
Optionals

- High Capacity HEPA / ULPA Filter
- Carbon Filter
- Pre-Filter
- Canopy Connection
- Work Chamber Shelves
- Hanger Apparatus
- Height adjustable support stand
- Manuel Decontamination/Fumigation
- Key / Lock Mechanism
- Lux adjustable illumination
- Heater & Microscope Assembly Base

Accessories

- Gas / Vacum Valves
- Portative Germicidal UV Lamp
- Mikroincinerator
- Cleanroom Chair
- Disinfection Dispenser
- Acrobat Dosument Holder
- UPS (Uninterruptible Power Supply)
- Voltage Regulator
- Microbiological Safety Test Equipments
- Document / Equipment Cleaning Module
- Mechanical Airflow Velocity Sensor

C SERIES METISAFE CLASS II TYPE A BIOLOGICAL SAFETY CABINET TECHNICAL DRAWING



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

C SERIES METISAFE CLASS II TYPE A BIOLOGICAL SAFETY CABINET TECHNICAL SPECIFICATIONS

Model	MSC-IIA-C90	MSC-IIA-C120	MSC-IIA-C150	MSC-IIA-C180
Internal Dimensions (WxDxH) mm	875 x 520 x 695	1250x610x614	1480x520x695	1785x520x 695
External Dimensions (WxDxH) mm	1020 x 745 x 1440	1395x860x1450	1625 x 745 x 1478	1930 x 745 x 1465
Support Stand (WxDxH) mm	996 x 702 x 745	1371 x 810 x 745	1601 x 702 x 745	1906 x 702 x 745
Working Table Top - Floor Height	840 mm			
Airflow (m/s)	Inflow	0.40 - 0.60 m/s		
	Downflow	0.25 - 0.50 m/s		
Filters (EN 1822)	Pre-Filter (Optional)	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		
Clean Area Class	EN ISO 14644-3	< ISO 5		
	US FED 209E	< Class 100		
Working Table	Standard	304 Stainless Steel		
	Optional	316L Stainless Steel		
Sash Window Aperture (mm)	Preset/Std	200 ± 10mm		
	Max Height	440 ± 10mm		
Sash Window	< 6 mm Laminated			
Noise Level	Normal Mode	< 60 dB(A)	< 60 dB(A)	< 60 dB(A)
	Stand-By Mode	< 50 dB(A)	< 50 dB(A)	< 50 dB(A)
Working Area Illumination (Lux)	750 – 1200 Lux			
Power Consumption 230 VAC- 50Hz	Fan Filter	180 W	230 W	320 W
	Illumination	18 W	36 W	36 W
	UV Lamp	18 W	30 W	36 W
	Electrical Socket Power / Current	2x1150 W / 2x5 A	2x1150 W / 2x5 A	2x1150 W / 2x5 A
Total Power / Current	2513 W / 11 A	2596 W / 11.3 A	2686 W / 11.7 A	2686 W / 11.7 A
Power Consumption Under Normal Operating Conditions (Illumination and Fan Motor)	198 W	266 W	356 W	356 W
Quality and Certificates	CE, ISO9001-2015 Quality Management Certificate, Biological Safety Cabinets EN12469, ISO14644 Cleanroom Class Compatibility, EN61010 Electric and Electronic Safety Compatibility, Accredited test company validation guarantee (When installation made by Metis or by its certified technical service personnel)			
Cabinet Weight	152 kg	201 kg	219 kg	252 kg
Support Stand Weight	29 kg	39 kg	37 kg	41 kg
Packaged Weight (With Support Stand)	221 kg	288 kg	305 kg	346 kg
Pack/Palette Dimensions (With Support Stand) (WxLxH) mm	1105 x 1025x 1811	1475 x 1100 x 1810	1700 x 1025 x1840	2030x1040x2025