



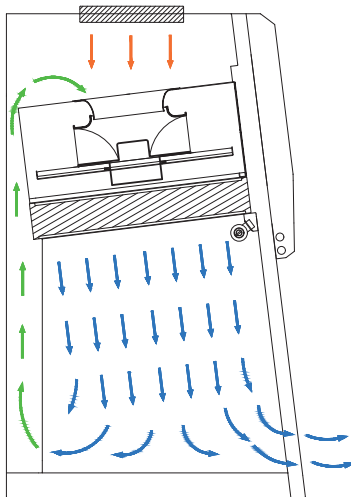
VERTICAL LAMINAR AIRFLOW CABINETS E Series



- Maximum Product / Material Protection
- Validation Guaranteed Air Cleanliness Class
- Ergonomics Design / Spacious Work Area
- Low Noise Level
- Class 100 / ISO 5 Cleanliness Class

“Laminar Airflow (LAF) cabinet ensures particle-free environment for product & material/sample protection against airborne dust or microorganisms”

AIR FLOW DIAGRAM



- HEPA Filtered Air (Fresh Air)
- Air Passing through the Prefilter
- Ambient Air
- HEPA Filtered Recirculated Air

Metisafe® Vertical LAF cabinets works under particle filtration, air recirculation and indoor exhausting principle. Room air pass through pre-filters that blocks coarse particles at device top and reaches to work cabinet area with air velocity of 0.40 m/s ($\pm 5\%$) by passing through HEPA filter. Built in laminator of fan filter module supplies the airflow homogenous way into the work chamber. Design of working chamber and air diffusion assure trimmed airflow and sweeping the deadzones. Air moves paths over the work table, one part exhausted to room at front by preventing room air move into the working zone. The rest of the internal air is recirculated from the back holes of the cabinet by also increasing HEPA filter life. The automatic air compensation through microprocessor control system keeps steady airflow rate at set point.

Main Body and Design Features

- Main body from antibacterial electrostatic paint coated on steel
- $<7^\circ$ angle back sloped front panel for work comfort and increased working chamber vision
- 26° Openable front panel for easy working chamber cleaning
- Easy reachable electronic control & electrical part located inside at the front door isolated from the 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
- Homogenous illumination
- Timer controlled effective disinfection by UV Lamp
- D.O.P. test ports

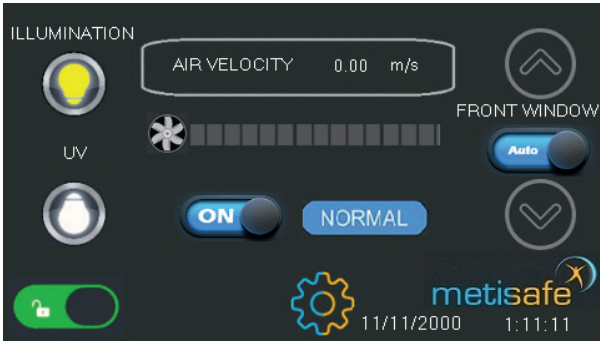


MICROPROCESSOR CONTROL UNIT

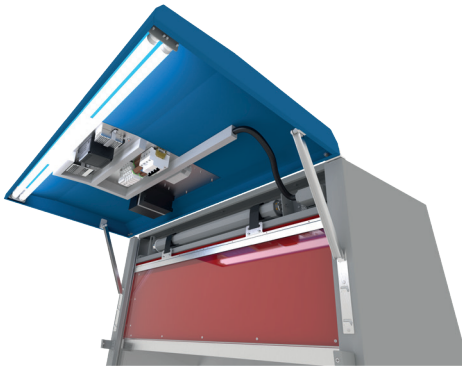
Color Screen Touch Control Panel: Password protected user interface, Device on/off button, Standby/Normal modes operation indicator, Motorized front window level adjustment and one-button automatic front window level adjustment, UV and illumination lamp On/Off buttons, Automatic switch to Standby mode and UV lamp operation when the windshield is closed, 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 air velocity rate, Fan working capacity, Fan working diagram, UV lamp timer setting, Cabinet, UV and illumination running times



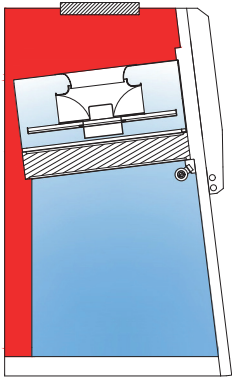
Control panel main display screen



Isolated easy access control unit from the contaminated area



Monoblock with rounded corners stainless steel work plate



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



CAT #	OPTIONS
MOP.ADI	Lux Adjustable Illumination
MOP.FWS	Front Window Motion Safety System
MOP.HTS	Humidity/Temperature Sensor
MOP.RES	Remote Access
MOP.CFL.EU4	Active Carbon Impregnated Pre-filter
MOP.FLT.ULP	ULPA Filter
MOP.MIE	Microscope Entegration
MOP.PMS	Particle Measure System
MOP.BWT	Precision Balance with Vibration Damping Weighing Table
MOP.WCS	Working Cabinet Suspension Apparatus (IV Bar)
MOP.MDS	Manual Decontamination System



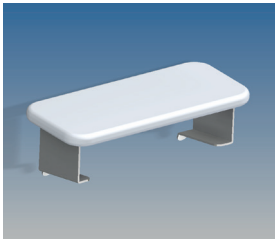
CAT #	ACCESSORIES
MAC.HAS	Height Adjustable Support Stand
MAC.WSS	Wheeled Support Stand
MAC.UVC	Portable Germicidal UV Lamp
MAC.ASA	Arm Support Apparatus
MAC.UPS	Uninerruptible Power Supply (UPS)
MAC.ADH	Acrobat Document Holder
MAC.AMH	Acrobat Monitor Holder
MAC.INC	Incinerator
MAC.DID	Disinfection Dispenser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



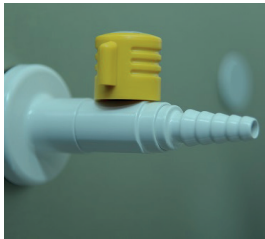
Working Cabinet Suspension Apparatus (IV)



Incinerator



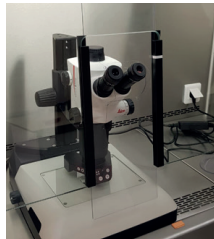
Arm Support Apparatus



Services Valves

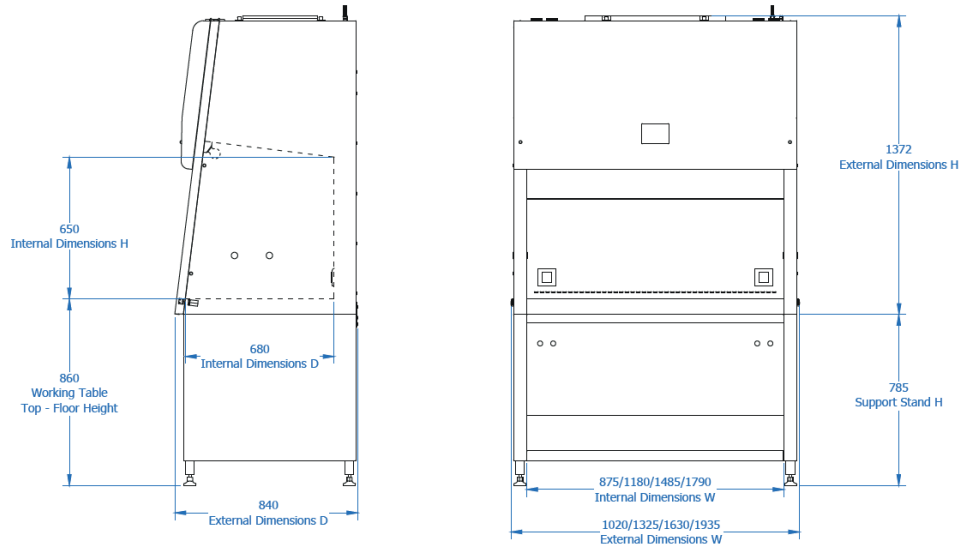


Height Adjustable Support Stand



Microscope Integration

METISAFE E SERIES VERTICAL TYPE LAF CABINET TECHNICAL DRAWING



METISAFE E SERIES VERTICAL TYPE LAF CABINET TECHNICAL SPECIFICATIONS

Model	LFV-E90	LFV-E120	LFV-E150	LFV-E180
DIMENSIONS and WEIGHT				
Internal Dimensions (W x L x H) mm	875 x 680 x 650	1180 x 680 x 650	1485 x 680 x 650	1790 x 680 x 650
External Dimensions (W x L x H) mm	1020 x 840 x 1372	1325 x 840 x 1372	1630 x 840 x 1372	1935 x 840 x 1372
Support Stand (W x L x H) mm	1020 x 840 x 785	1325 x 840 x 785	1630 x 840 x 785	1935 x 840 x 785
Working Table Height (mm)	860 mm			
Cabinet Weight (kg)	168	185	192	215
Support Stand Weight (kg)	30	34	38	42
Packaged Total Weight (With Support Stand) (kg)	235	245	275	307
Pack/Palette Dimensions(With Support Stand)(WxLxH)mm	1140 x 1105 x 1780	1450 x 1105 x 1780	1760 x 1105 x 1780	2070 x 1105 x 1780



HEPA FILTER and AIRFLOW DYNAMICS

Airflow Velocity	Down Flow	0.45 m/s \pm %20		
Filters (EN 1822)	Pre-Filter	EU4		
	Main Filter	H14 HEPA, 0,3 μ m particle %99.995< filtration efficiency		
Airflow Rate m ³ /h		615	770	975

ENERGY

Energy Consumption 230 VAC- 50Hz	Fan Filter Unit	168 W	191 W	208 W	269 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		2504 W / 10,8 A	2557 W / 11.1 A	2580 W / 11.2 A	2641 W / 11,4 A
Power Consumption Under Normal Operating Conditions (Illumination and Fan Motor)		186 W	227 W	244 W	305 W



ERGONOMICS and COMFORT

Front Window Aperture (Fixed)- Optional		400 mm
Front Window Aperture - Motorized	Standard-Preset	200 ± 10 mm
	Maks. Height	400 ± 10mm
Noise Level		≤ 60 dB
Illumination		≥ 750 Lux

WORKING AREA

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



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 operated by Metisafe® Certified Technical Personnel