



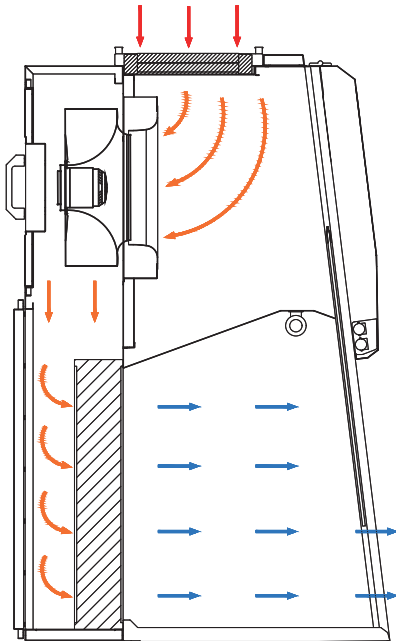
## HORIZONTAL LAMINAR AIRFLOW CABINETS

- 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”

### AIRFLOW DIAGRAM



→ HEPA Filtered Air

→ Air Passing through the Prefilter

Metisafe® Horizontal LAF cabinets work under air filtration and indoor exhausting principle. Room air passes through pre-filters that block coarse particles at the device top and reaches the work cabinet area with an air velocity of 0,40 m/s ( $\pm 5\%$ ) by passing through the HEPA filter. Built-in laminator in the fan filter module supplies the airflow in a homogeneous and laminated way. The design of the working cabinet and air diffusion ensures trimmed airflow and sweeping dead zones. Air moves in one way in the working cabinet by being exhausted to the room at the front, preventing room air from moving into the working zone. The automatic air compensation through the microprocessor control system keeps a steady airflow rate at the 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
- Easy reachable electronic control & electrical part located inside at the front panel 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

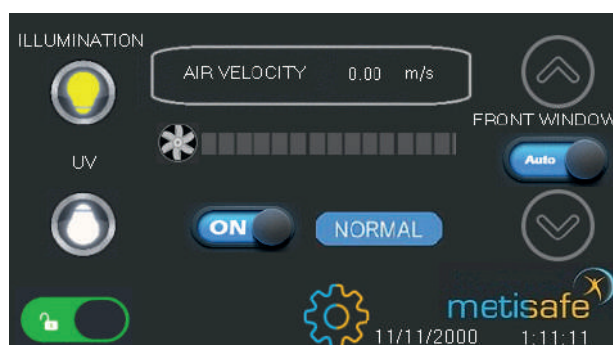


## MICROPROCESSOR CONTROL UNIT

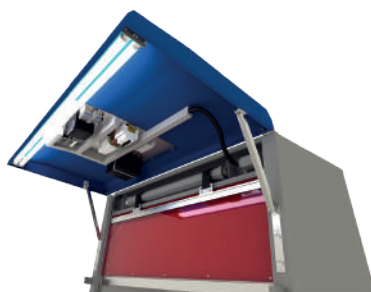
**Color Screen Touch Control Panel:** Password protected user interface, Device on/off button, Standby/Normal modes operation indicator, Motorized front window level adjustment and one-button automatic front window level adjustment, UV and illumination lamp On/Off buttons, Automatic switch to Standby 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



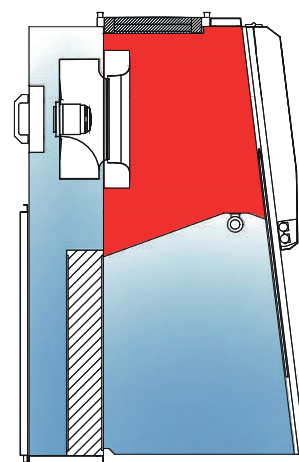
Control panel main display screen



Easy access, isolated control unit from the contaminated area



Monoblock with rounded corners stainless steel work plate



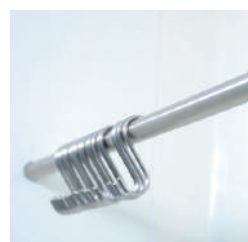
Plenum cast design creates negative pressure around contaminated work area and ensures zero leakage



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.EU4	Active Carbon Impregnated Pre-filter
MOP.FLT.ULP	ULPA Filter
MOP.MIE	Microscope Integration
MOP.PMS	Particle Measure System
MOP.MDS	Manual Decontamination System
MOP.WCS	Working Cabinet Suspension Apparatus
MOP.BWT	Precision Balance with Vibration Damping Weighing Table



CAT #	ACCESSORIES
MAC.HAS	Height Adjustable Support Stand
MAC.WSS	Wheeled Support Stand
MAC.UVC	Portable Germicidal UV Lamp
MAC.MIS	Microbiological Air Sampling Apparatus
MAC.ASA	Arm Support Apparatus
MAC.UPS	Uninterruptible 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



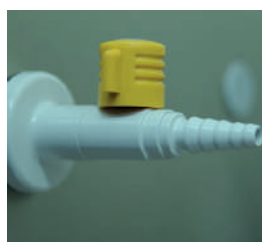
Working Cabinet Suspension Apparatus (IV)



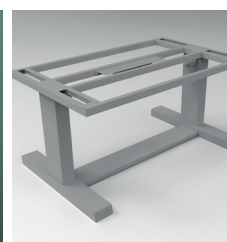
Incinerator



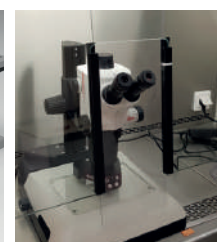
Arm Support Apparatus



Services Valves

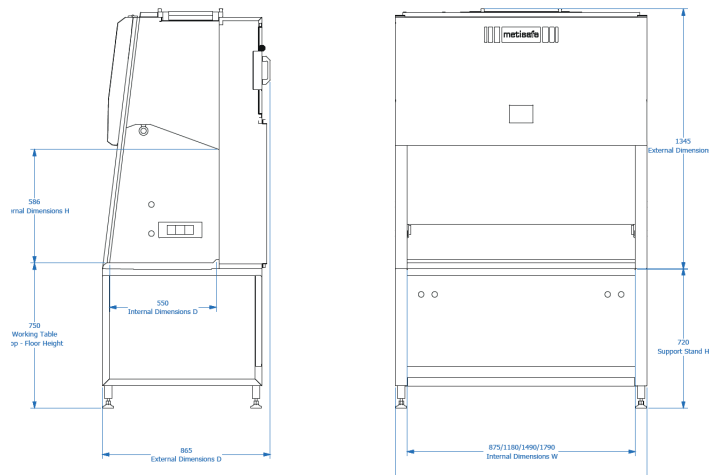


Height Adjustable Support Stand



Microscope Integration

# METISAFE HORIZONTAL TYPE LAF CABINET TECHNICAL DRAWING



## METISAFE HORIZONTAL LAMINAR AIR FLOW CABINETS TECHNICAL SPECIFICATIONS

Model	LFH-90	LFH-120	LFH-150	LFH-180	
DIMENSIONS AND WEIGHT					
Internal Dimensions (E x D x Y) mm	875 x 550 x 586	1180 x 550 x 586	1490 x 550 x 586	1790 x 550 x 586	
External Dimensions (E x D x Y) mm	995 x 865 x 1345	1300 x 865 x 1345	1610 x 865 x 1345	1910 x 865 x 1345	
Support Stand (Ex Dx Y) mm	995 x 825 x 720	1300 x 825 x 720	1610 x 825 x 720	1910 x 825 x 720	
Working Table Height (mm)	750 mm				
Cabinet Weight	150 kg	186 kg	227 kg	272 kg	
Support Stand Weight	30 kg	34 kg	38 kg	42 kg	
Packaged Total Weight (With Support Stand)	215 kg	260 kg	310 kg	364 kg	
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 ± %20			
Filters (EN 1822)	Pre-Filter	EU4			
	Main Filter	H14 HEPA, 0,3 µm paticle %99.995 < filtration efficiency			
Airflow Rate m³/h		615	770	975	1165
Working Area Cleaning Class	EN ISO 14644-3	< ISO 5			
	US FED 209E	< Class 100			
ENERGY					
Energy Consumption 230 VAC- 50Hz	Fan Filter Unit	90 W	120 W	136 W	148 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		2426 W/10,5 A	2486 W/10,8 A	2508 W/10,9 A	2520 W/10,95 A
Power Consumption Under Normal Operating Conditions (Illumination and Fan Motor)		106 W	152 W	168 W	180 W
ERGONOMICS and COMFORT					
Front Window Aperture (Fixed) - Optional		400 mm			
Front Window Aperture - Motorized	Standard-Preset	200 ± 10mm			
	Max. Height	410 ± 10mm			
Noise Level	Normal Mod	≤ 60 dB			
Illumination		≥ 750 Lux			
WORKING AREA					
Working Table	Standard	304 Stainless Steel			
	Optional	316 Stainless Steel			
Front Window Thickness		≥ 6 mm			
QUALITY AND CERTIFICATES					
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 opared by Metisafe® Certified Technical Personnel					

