



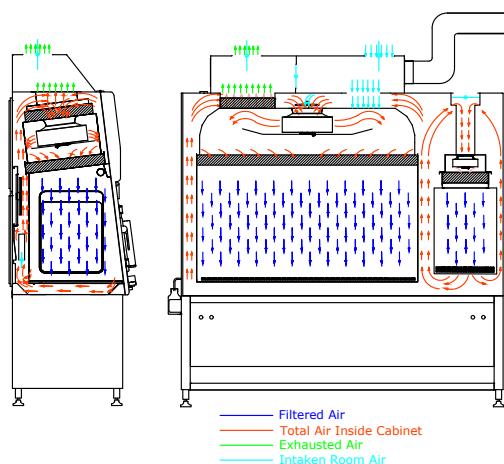
METISAFE ISOLATOR

Reliable Sterility Test Cabinet
Positive or Negative Pressured
Integrated Full Automatic Decontamination
Low Energy Consumption
GMP Compliant



“Metisafe® isolators provide contamination preventing particle free workstations for aseptical applications in pharma industry and laboratories. Depending on hazard level of work materials isolators are classified as positive or negative pressured”

AIRFLOW DIAGRAM



Isolators work under particle filtration principles, air recirculation and keeping the work chamber at positive or negative pressure. In positive pressure isolators, 90% ($\pm 5\%$) of total internal air is recirculated passing through main HEPA/ULPA filter located at work zone top. The rest of the air is exhausted after passing through the HEPA/ULPA filter located at the cabinet's top. Negative pressure isolators exhaust total cabinet air completely to the outer atmosphere without recirculation after passing through main filters. Pre/HEPA filtered room air is intaken by the top of the cabinet and pass-box provides the work area protecting the work zone under ISO-5 class airflow. The primary air barrier accomplished by the double wall negative plenum design of the Metisafe cabinet prevents particle escape to surroundings and zero leakage is ensured.



Electrical control board isolated from work zones.



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

Contamination risk minimized fully isolated primary barrier together with leak proof glove ports



Interlock controlled dynamic passbox with radiused glass doors and sliding load tray.

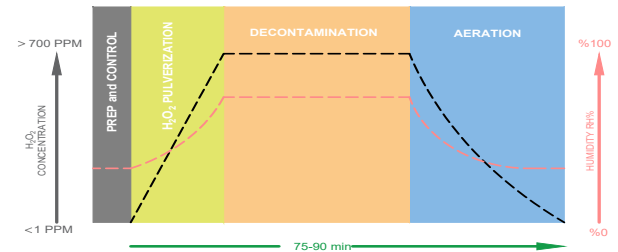
Material transfers into work chamber are accomplished by leakproof gloves assembled at front panel ports through interlocked mechanism dynamic pass-box. Metisafe isolators are equipped with a full automatic decontamination system that provides pre or post operation sterility of air contact surfaces. The controlled aseptic environment is achieved by all physical and air barrier mechanisms and automatic decontamination to be used in sterility tests.

Microprocessor Control Unit

- Easy adjusted working parameters by touch pad control panel
- Continuous airflow velocity measuring sensors a cruise controlled automated airflow rate adjustment
- **Wide Display Screen:** Air velocity, password protection, alarm activation log data, filter change periods, filter integrity status, work chamber temperature and humidity rates, Illumination level adjustment, online particle count data (optional), stand-by work mode option, single button start full automatic decontamination and process follow-up screens
- **Audial & Visual Alarm parameters:** Unproper pressure warning, system ready/not-ready warning, service need warning, manual alarm cancel button, filter/lamps replacement warning



Control panel main display screen



Automatic Decontamination Process Cycle Diagram

Decontamination System

- Full automatic decontamination process working parallel with work chamber temperature and humidity level
- Integrated H_2O_2 pulverization
- Sensitive H_2O_2 measurement
- Timer controlled efficient UV disinfection



Sensors & Decontamination control display screen

Main Body & Design Parameters

- Stainless steel leak-proof main body
- 7° angle sloped front panel for work comfort and increased working chamber vision
- Isolated automation systems from work chambers
- Interlocked ISO-5 class dynamic pass-box with sliding load tray
- UV resistant safe front glass & radiused cornered pass-box door glasses
- Leakproof 0,6 > mm chemical resistant gloves
- Openable front panel for easy working chamber cleaning

Optionals

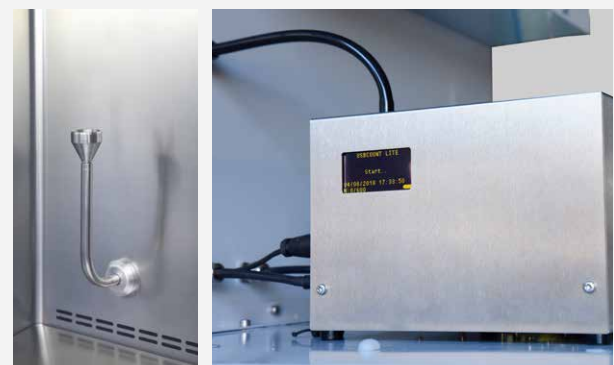
- High Performance ULPA filter, Carbon Filter
- Online particle counting system
- Building management system integration
- Remote access through PC/Android/IOS apps
- 7/24 alarm warning message system
- Work chamber hanger apparatus (IV Bar)
- Anti-vibration weighing balance table
- Peristaltic Pump

Quality and Certificates

- ISO14644 Cleanroom Class Conformity
- EN12469 Biological Safety Cabinets Standart
- CE, ISO9001-2015 Quality Management Certificate
- EN61010 Electrical & Electronic Safety Conformity
- Validation Guarantee of accredited test organization

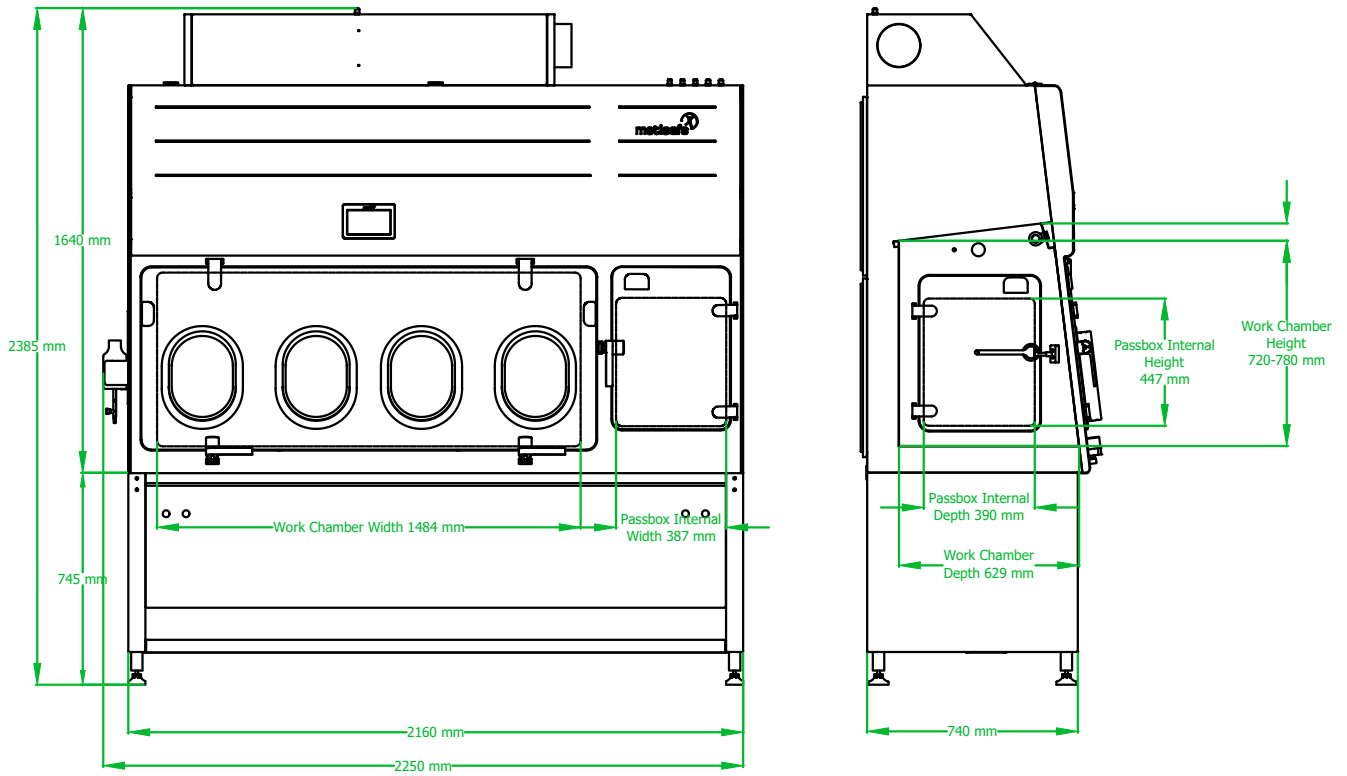


Work chamber internal views



Online particle counting system

METISAFE ISOLATOR TECHNICAL DRAWING



METISAFE ISOLATOR TECHNICAL SPECIFICATIONS

Model	MSP-II-E150	
Internal Dimensions (ExDxY) mm	1484x629x720	
External Dimensions (ExDxY) mm	2250x850x1640	
Support Stand Dimensions (ExDxY) mm	2160x740x745	
Pass-Box Dimensions (E x D x Y) mm	387x390x447	
Working Table Top - Floor Height	840 mm	
Work Chamber Pressure - Positive / Negative	+ 20 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
Work Bench	Standard	304 Stainless Steel
	Opsiyonel	316L Stainless Steel
Standard Exhaust Fan Motor Capacity	Suitable for 10 m Horizontal and 3 m Vertical Air Duct	
Front Window	< 10 mm	
Front Glass Glove Port Quantity	4	
Noise Level	Normal Mode	< 56 dB(A)
	Stand-by Mode	< 50 dB(A)
Illumination	750 – 1100 Lux	
Energy consumption 230 VAC - 50 Hz	Fan Filter Unit	200 W
	Exhaust Motor	90 W
	Illumination	36 W
	UV Lamp	40 W
	Decontamination Unit	2800 w
Electrical Socket Power / Current		2x1150 W / 2x5 A
Total Power / Current	2666 W/11.6 A	
Power Consumption Under Normal Operating Conditions	326 W	
Cabinet Weight	378 kg	
Support Stand Weight	38 kg	
Packaged Weight	416 kg	
Pack/Palette Dimensions	2375x1100x2140	