



Iskra pio d.o.o.
Industrial equipment manufacturer

MICROBIOLOGICAL SAFETY CABINET

MC ..-3



Operator, product and environment protection
ISO 5 (ISO 14644-1:1999), Class A (GMP)
Class II, type A2 – NSF:2002
Protection class II - EN 12469:2000 and DIN 12980:2005



The microbiological safety cabinet assures a high safety level for operator, surrounding and product. The cabinet is manufactured according to the requirements of SIST EN 12469:2000 standard.



Basic characteristics

- easy maintenance
- easy cleaning and disinfecting
- rounded corners
- easy and safe filters replacement
- integrated low-noise fan
- automatic height placement of the front safety glass barrier
- progressive adjustable fan
- available in different sizes
- easily accessible electrical components
- easy control

Application fields

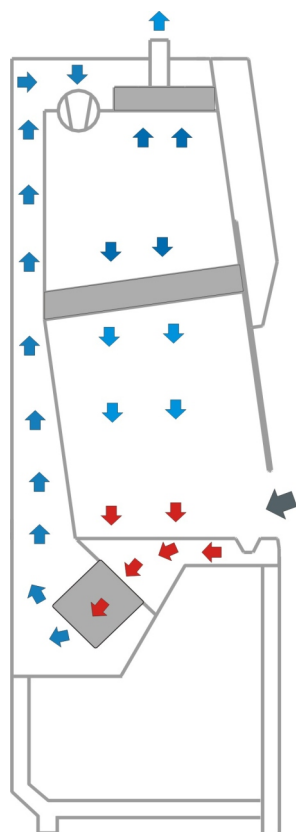
- microbiology
- pharmacy
- biotechnology
- medicine
- clinics and hospitals
- preparation of cytotoxic agents, antibiotics
- laboratories for research and development

Technical characteristics

- surface of metal construction protected with powder painting in RAL 9010
- work area and working segments made of quality stainless steel
- working surface made of segments for easy cleaning and autoclaving
- all surfaces and corners built in accordance to GMP, GLP standard
- front glass tilted for 8° allows comfortable sitting and working
- illumination of work area (> 1000 lux)
- noise < 60dB
- side walls with integrated safety glass – better visibility
- motorized lifting of front safety glass (automatic height placement according to selected mode)
- operating and safety features controlled by microprocessor (alarm limit values)
- different modes and setup of working parameters selected with user interface (validation and service)
- double absolute filtration of exhaust and circulating air – filters quality H14-EN1822:2010
- integrated connector for absolute filters H14 integrity test (DOP/DEHS test)
- connectors built in working area: 2x socket 220V/2,5A, 1x RS 232 connector (link between internal working area and outer side wall), 1x USB connector (link between internal working area and outer side wall)
- rear wall with integrated safety glass for outer monitor installation

Options

- connector for gas, vacuum, air...
- built in UV light
- constant particle monitoring connector
- isokinetic probe
- particle monitoring system
- remote controller
- working height adjustment
- stainless steel execution
- implementation according to customer demands



Description and working principle

The cabinet takes a part of the air from the surrounding and returns it back cleaned through an absolute exhaust filter, the rest of the air is circulating inside the cabinet. The air is entering the safety cabinet from the lower front side through aperture below front glass. Then it goes further through cuttings in working-desk segments. Under the working-desk segments, the entering and the recirculated air are mixed together. Mixed air then goes through inlet absolute filters quality H14 (EN 1822), built in below the working segments.

Then the air travels through the return flow channel to the upper casing and enters the overpressure hood. A ventilator pushes a part of the air (ca. 30%) through a H14 (EN 1822) quality exhaust filter to the surrounding(s), the rest of the air (ca. 70%) is pushed into the working area through a H14 (EN 1822) quality filter above the working area and through a distribution net.

The rates of exhaust respectively entering and recirculating air are ensured by proportions of surfaces of the exhaust filter and the filter above the working area. The distribution net provides a laminar air arrangement above the working area and directs the air vertically to the working surface of the cabinet. The laminar air flow carries away the particles that are generated by the manipulation of the material. In the front area of the cabinet between the operator and the location of dusting is an air curtain, separating the working area of the cabinet from the surrounding.

Specifications

Type	MC 9-3	MC 12-3	MC 15-3	MC 18-3
Overall dimensions width x depth x height (mm)	1030x790x2220	1340x790x2220	1650x790x2220	1960x790x2220
Working area width x depth x height (mm)	880x600x600	1190x600x600	1500x600x600	1810x600x600
Max.power consumption without socket (W)	800	800	1400	1400
Maximal power per socket (W)	550	550	550	550
Laminar air flow (m/s)	0,4	0,4	0,4	0,4
Voltage (V/Hz)	230/50	230/50	230/50	230/50
Weight (kg)	245	285	340	410
ABS. working filters H14 (dim. / pcs)	305x610x69 / 3	305x610x69 / 4	305x610x69 / 5	305x610x69 / 6
ABS. exhaust filters H14 (dim. / pcs)	457x457x69 / 1	305x457x69 / 2	305x457x78 / 2	305x457x69 / 3
ABS. inlet filter H14 (pcs)	3	5	6	7



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