





Cabinet

IVF guard Microbiology *Class II Safety Cabinet* in Ergonomic design, with the choice of materials of construction of the highest quality guarantees conformity to the strictest safety standards, product and environmental protection about <u>vertical</u> laminar air flow system. 70% air re-circulated and 30% air exhaust designed & built to performance requirements of the EN-12469:2000. Follow features is standard included:

- This Cabinet have the lowest power consummation and the lowest noise level on the market
- H14 HEPA-Main-filter efficiency (99,995%)
- H14 HEPA-Exhaust-filter efficiency (99,995%)
- o Two-stage ventilation-system
- Double centrifugal fan provide complete operator
- Low pressure Drop HEPA filter increased media filtration for double filter lifetime
- Available in four sizes
- Warming plates single or double
- With or without stereo microscope
- Warming area wide 580 x depth 350 mm
- We installing pillar \emptyset 32 mm our your specially
- Dimming modern flicker-free Microscope LED light, Brightness - daylight 5.600 k, lamp life >30.000 hrs
- \circ Painted steel leveling base stand 835 mm
- Available in three sizes
- Door size for transportation must 800 mm
- For individual, we offer a lot of accessories

The ambient air is drawn in from the slots at the stainless-steel base of the front opening and it then passes under the work surface, from where it is drawn up and blown into the plenum of the recalculating and exhaust fans.

The "bio-dynamic sealing system" of the negative pressure plenum ensures that all contaminated particles are automatically drawn to the plenum or pressure chamber to be captured by the main re-circulating and exhaust H14 HEPA filters.

The fan system assures that no part of the cabinet comes ever under positive contaminated pressure to the laboratory, thus protecting and preserving the environment and operating personnel from exposure to agents of bio-contamination.

70% of the filtered air is re-circulated (after passing through a H14 filter) in a air clean less in Class ISO 3, according to ISO 14644-1 laminar flow pattern downwards into the work chamber and the remaining 30% is exhausted to atmosphere through another H14 HEPA filter.





Operations Principles



re-circulated air

Filtered air



Safety glass windows

The Cabinet has all windows made from safety glass. The front sash window is also hinged and can be opened up for easy access during cleaning and routine maintenance. For the end of operation, the disc may be completely closed. The working height of the windscreen is 200 mm. The microscope ocular is guided through a separate window and sealed with a bag system. Thereby the microscope is installed tightly into the workbench





Main & Exhaust filter

The H14 HEPA-filter (high efficiency-particular air-filter) are efficiency for the highest and provide the required particle-separation. The filter separation is 99,995 % and absorbed particles > 0,3 μ m. The aluminum frame has special seals on both sides.

Remarks:

The durability of the filter-elements is in dependence of the air quality in the Laboratory.

Work surface

The polish stainless steel work surface is designed and tested, for standard works on the current international IVF laboratories. All parts easy to clean.

Warming plate

The heating area is highlighted with a Laser characteristic visible. The basic construction of the heat surface consists of a glued-on aluminum plate. Inside the milled grooves, is heating conductors placed with highest safety. The heating plate is from the bottom insulated and protected with a cover. The Working temperature RT+5°C ~ 50°C \pm 0,2°C without use air-flow. Temperature sensor is Pt100. The electric heating is switching OFF with 60°C safety-switch.



VisiLED Light systems

The latest modern version is a Schott-LED-light flicker free high brigness daylight (5.600K) with dimming function, adjustment for Segment-light and rotation, pillar \emptyset 32 mm, with which the cultures are very high contrast visible. The controller system is installing on the top from the work-surface. The microscope glass \emptyset 84 mm is plan install inside the work surface.

USB Adapter

The USB adapter is inside and outside from the cabinet. The Cable connection between this adapter is installing inside or Manufactory. This option is for the microscope camera. Remarks:

This option is for working with microscope camera. The electrical connection-line from the camera to the inside USB and from the outside USB to your computer must connect the user.

Gas Flow meter

We use a gas flow meter into the back wall, per warming plate. The setting range is from 4 to 40 l/h. The pipe-connection is automatically after acceptance from the gas. These options are free of Service.

Armrest

Ergonomic additional perforated Armrest, for relaxing working made from Stainless Steel

Monitor

This 19" flat Monitor with a aluminum front panel is equipment with a TN panel. Varolab provides only this high-end Monitor. This monitor is mounted in the rear wall. The electrical connections are made internally devices. The Video Connector Type "DVI-D" outside of navigation system is easily accessible for the customer. The user of the Monitor frame is easily accessible in the aluminum front.





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VAROLAB SYSTEMS

Detail Specifications									
Order No.:	FE 08 -120	FE 08 - 121	FE 08 - 150	FE 08 - 151	FE 08 - 180	FE 08 - 181	FE 08 - 182	FE 08 - 183	
Model	single	solo	single	solo	single	solo	twin	dual	
Exterior	Exterior 1350 x 860 x 1500		1655 x 860 x 1500			1960 x 860 x 1500			
Interior	Interior 1192 x 580 x 740		1497 x 580 x 740		1802 x 580 x 740				
display			2-lines LCD double display						
Net Weight	235kg		265 kg		305 kg	305 kg	325 kg	325 kg	
Power			1/PE AC, 230V 50 Hz						
kW	0,39		0,45		0,49	0,49	0,78	0,78	
dB(A)	42,5		47		49	49	49	49	
D.O.P. inlet		standard							
Power socket	1		1		2	2	2	2	
N diama and a	0	1	0	1	0	1	4	2	
Microscope	U		U	1	0		1	2	
VisiLED light	x	Standard	X	Standard	X	Standard	Standard	Standard	
Warming plate	1	1	1	1	1	1	2	2	
TempRange +5°C above ambient temperature to +40°C									
Temp. Uniformity		+/- 0,2 °C							
Temp. stability		+/- 0,1 °C							
Control display			2-lines digital double digital						
UV-Light 254 nr	n				optional				
Flow meter		optional							
Electric base frame		optional							
19" LCD Monitor			optional						
Swivel Castors		optional							
USB Adapter		optional							
Armrest				optional					
USB		optional							
Monitor					optional				

[Sizes W / D / H = mm]