LABOX

Cells and Tissues friendly technology

I.V.F. solution

smart technology

low noise

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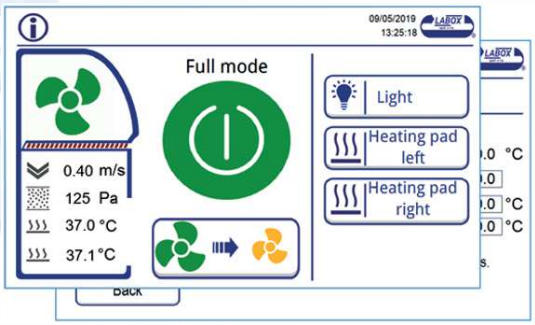
LAMINAR FLOW CABINET FOR TISSUE CENTRES

Special laminar flow cabinet for work in tissue and cells centres, e.g. IVF, etc. The set consists of components that have been proven in practice and which enable optimal laboratory work with cells. The laminar flow cabinet provides outstanding protection against particulate and bacterial contamination of treated tissues and cells.

+ Fully automated operation controlled by state of the art control system CR2000
+ Easy to use at the low-noise level
+ Low vibration
+ High reliability and easy to clean
+ Lifetime service support

DESCRIPTION



LABOX FBB LAMINAR FLOW CABINET

In the workspace this cabinet ensures cleanliness A class pursuant to EC GMP Volume 4, Annex 1. This cabinet is designed, from the early begining, mainly for work in IVF laboratory, such as vitrification, ISCI manipulation, sperm collection and other routine work. The main atributs are a comfortable work, very low vibration and noise, safe and reliable operation and outstanding service support. Due to the very low vibration level provides ergonomically ideal conditions for working with a microscope. The cabinet is controlled by CR2000 smart control, the state of the art microprocessor unit with professional touch panel interface (with glove touch feature). The interface is user friendly, clear and intuitive. It provides not only standard feature as full mode, reduce mode and stand-by mode. But also continuous air speed control, HEPA filter pressure drop compensation, smart PID control and measurement of heating surfaces, timer, full remote control, alarm notifications by email and cell phones push notifications and many others state of the art features. Using a high quality and powerfull ventilator it is ensured maintenance free operation and entire utilizing sorption efficiency of high-performance filters, which means long life of filters and save operation costs. The work surface is made from high quality stainless steel, easy to clean and decontaminate. The high-efficiency filter installed in the cabinet has 99.995% efficiency performance. For working with DNA the cabinet is fitted with powerful LED lightings, which do not affect DNA. The side walls of working space are full frame glazed to ensure the optimum amount of light. The LED light can be equipped with dimmable feature to set the comfortable environment.

HEATING SURFACE WITH OR WITHOUT MICROSCOPE INTEGRATION (INCLUDING HEATING GLASS)

For works with heat sensitive material the workstation is equipped with heating surface. The top of the heating surface is made from the same material as the rest of the work surface, i.e. high quality stainless steel. The heating surface (600x300 mm) guarantee both outstanding temperature stability as well as homogenity. State of the art PID digital regulation provides accurate, precise temperature control. This control system is part of main CR2000 Smart control unit. Heating surface operation can be controlled locally, with timer or remotely with cell phone. Required temperature is reached approx. in 35 minutes. Heating surface can be equipped with readiness for microscope installation and heating glass. As a proven combination we recommend integrating the NIKON SMZ microscopes with NIKON original LED light (including OCC feature, which is a form of oblique lighting method developed by Nikon.). Using the original NIKON light the best, true images are achieved. These microscopes feature top-of-the-range specifications. In addition to high magnification and high working height, they also offer excellent ergonomics. Microscope is fully integrated into the heated surface. Heated glass ressesed in the heating surface is made of high quality quartz glass (d 55 mm). Temperature control is assured by CR2000 control unit. The most up-to-date algorithm is used to control the heating.

CO_2 INCUBATOR

For storing cells the Labotect C16 or Selutec TECO 10 CO2 incubator is recessed into the rear panel of the working space. This 16-litre incubator is equipped with two shelves and an alarm.

TECHNICAL AND USER-FRIENDLY COMBINATION WITH A GOOD PRICE – PERFORMANCE RATIO

Installed in many IVF centres in the Czech Republic, Slovakia, Spain, and other EU countries.

OPTIONAL ACCESORIES/ CUSTOMIZATION

Heating surface

The cabinet can be fitted with a heated surface, 600x300 mm, for working with temperature-sensitive biological material. This surface is highly homogenous and features precise, digital PID regulation temperature control. Heating surface can be controlled locally, remotely or using timer. Required temperature is controlled by CR2000, using modern, up-to-date algorithm. Easy to setup and calibrate the required temperature.

Lab equipment integration

Microscopes, micromanipulators, incubators, LCD monitors, centrifuges, cameras, personal computers, weight table/stone, etc.

Mounts

Upon request the cabinet can be fitted with various brackets, hooks, bars, magnetic holders, suspension bars, shelves, keyboard integration, etc.

Dimmable LED light

Dimmable feature (0-100%) is suitable to set comfortable environment in the working space.

Higher level of filtration efficiency

As standard the cabinet is fitted with a Highly efficient filter (HEPA), with 99.995% efficiency; it may be fitted with an Ultra-low particulate filter (ULPA), with 99.9995% efficiency.

Temperature sensor in the working space

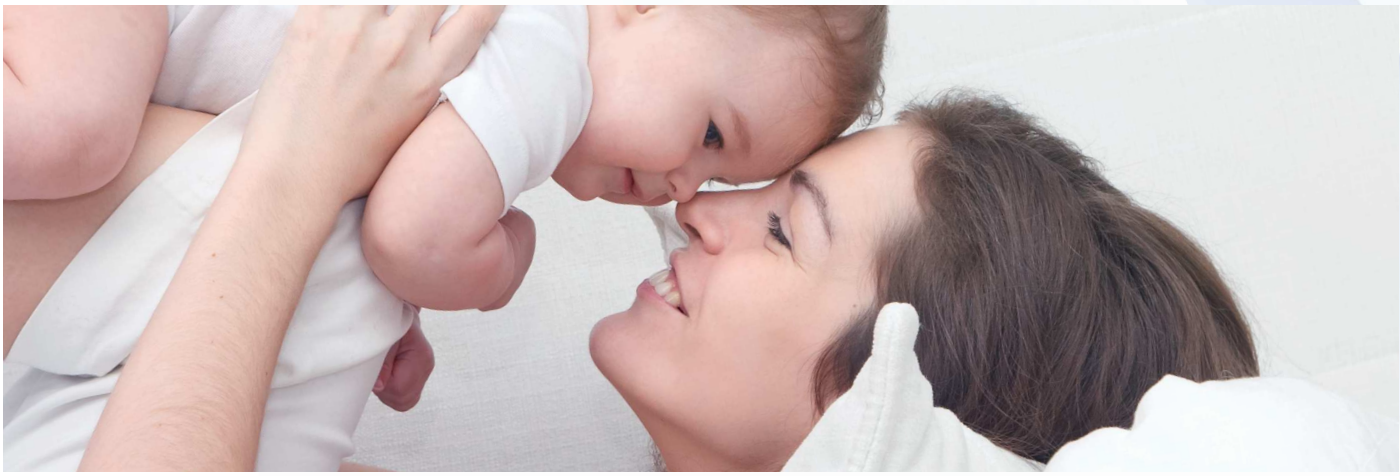
For temperature monitoring in the working space, a temperature sensor can be installed. Values are being continuosly evaluated according to GMP requirement.

Colour schemes

The front panel can be made in various colours to match the laboratory's colour standard.

WIFI router

The workstation can be connected to the ethernet network. In case there is only WIFI signal, the workstation can be equipped with WIFI Router (with or without SIM).



TECHNICAL PARAMETERS

Cleanliness class pursuant to US FS 209 E	100 (M 3.5)
Cleanliness class pursuant to EN ISO 14644	ISO 5
Cleanliness grade acc. to EU GMP	A
Power voltage [V/Hz]	230V / 50Hz
Air-flow speed (m.s-1) *	0.40 ± 0.05 full mode, 0.20 ± 0.05 reduce mode
Noise level at operator workstation (dB(A)) in full mode	max. 53
Noise level at operator workstation (dB(A)) in reduce mode	max. 49
Heating surface and heating glass temperature range **	30 - 60 °C

* programmable by user within the range 0.20 to 0.60 m.s-1

** if heating surface is installed. The temperature can be setup by user

Smart control system CR2000 features: working mode selection; user selection with various access level; remote control via Android, iOS, Windows; Independent timer for cabinet and each heating surface; remote service support, airspeed and temperature setting, light level, main filter pressure level, audit trail, validation and service interval warning, alarm system according to the GMP requirement including email notification and push notification (in case the workstation is connected to the internet). In time notification with smart prediction for filter replacement. Complete communication in English, Spanish, Czech language. Others languages can be added on demand.

STANDARD DIMENSIONS

	Outer dimensions (mm), including stand			Workspace (mm)			Power consumption (W)
	width	height	depth	width	height	depth	
FBB - 12 IVF	1180	2070	690	1155	875	610	330
FBB - 16 IVF	1616	2070	690	1590	875	610	450
FBB - 20 IVF	2000	2070	690	1970	875	610	650
FBB - 24 IVF	2400	2070	690	2370	875	610	660

The working desk height is 750 mm. Can be modified on demand.

Note: If you are looking for a laminar cabinet to cover a micromanipulator or other equipment where vibrations must be kept to a minimum, take a look at the FBB-R laminar flow cabinet. For operation which requires to protect both the material and the laborant please consider to purchase biological safety cabinet MB-IVF.

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