



LABOX

FBB-IVF

**PROFESSIONAL IVF
WORKSTATION III. GEN.**

www.labox.eu

LABOX

The Future
is in our hands

LABOX

GENERAL PRODUCT
PRESENTATION

LAMINAR AIRFLOW
WORKSTATION
PROFESSIONAL LINE



LAMINAR AIRFLOW
WORKSTATION FOR IVF
FBB-IVF



Cells and Tissues
friendly technology



low
noise



key benefits and advantages

Professional laminar
airflow workstations

- + Class A acc. to the GMP, ver. 2022/08
- + Powerfull, quiet and energy-efficient
- + State of the art **SMART** control system CR2000
- + made of **premium materials and components** (24/7)
- + **Continuous monitoring** of temperature, pressure drop and airspeed
- + **CTM** (Central timer module) most advanced timer
- + **Great ergonomic** - low vibration, low noise, effective workspace
- + Full **remote control** and remote service management
- + **Audit trail** – registration of changes, alarms, settings, etc.
- + **Lifetime service guarantee**

- + Using a light source from a microscope manufacturer
= **maximum utilization of all features of new microscopes**
- + Ergonomic space under the worktop
= **comfortable and spacefull legroom**

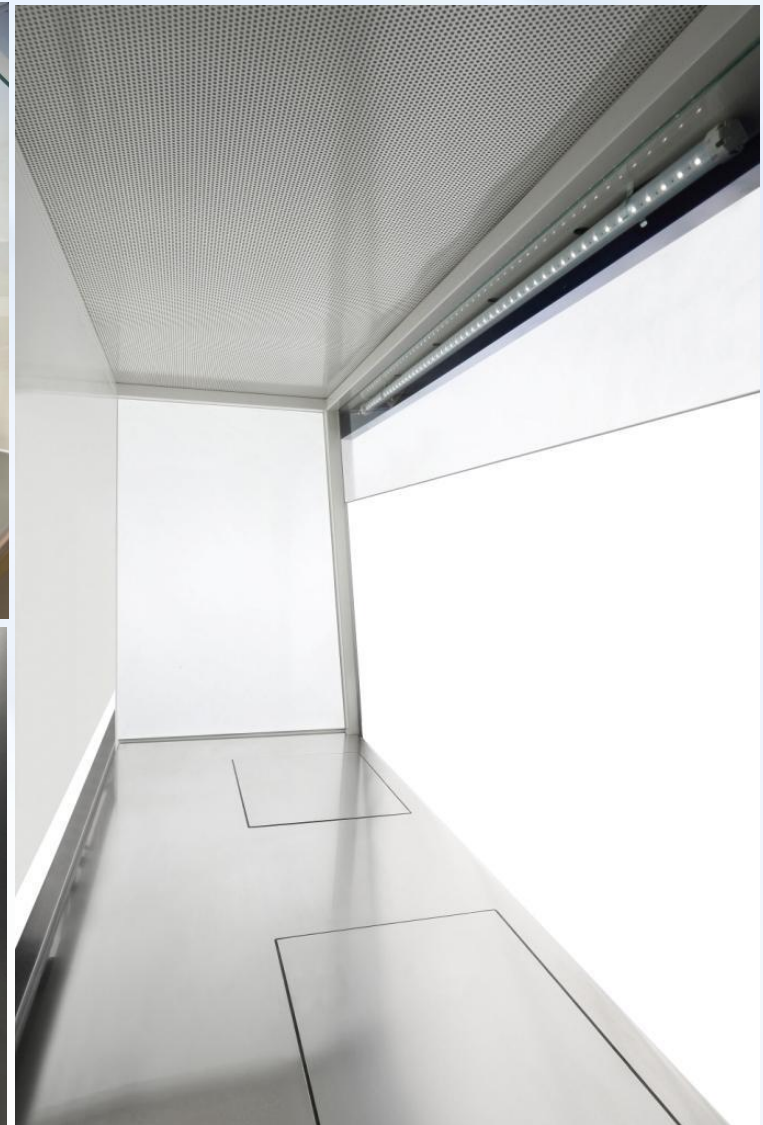


- ✓ LED light with high light intensity - dimmable 0-100%
- ✓ „C“ Stand
- ✓ Solid, stable table with anti-vibration foots
- ✓ CR2000 smart control unit – state-of-the-art control system
- ✓ Full remote control and service management
- ✓ Continuous monitoring of temperature, HEPA filter pressure drop and airspeed
- ✓ CTM (Central timer module) most advanced timer
- ✓ Auditrail
- ✓ High-efficiency filtration class H14, - 99,995% efficiency
- ✓ Control by the touch panel as well as from Android or iOS smartphones
- ✓ Instant email and push notification
- ✓ USB socket
- ✓ cGMP compliant
- ✓ Cleanliness class A (GxP, Eudralex)
- ✓ Class 5 (ISO 14644)

standard features

working desk

- + Smooth stainless steel with matte finish (glare-resistant)
- + Easy to clean and resistant to the cleaning and decontamination solutions
- + Superb integration of heat plate, microscope and others equipment, fully embedded- single level working space





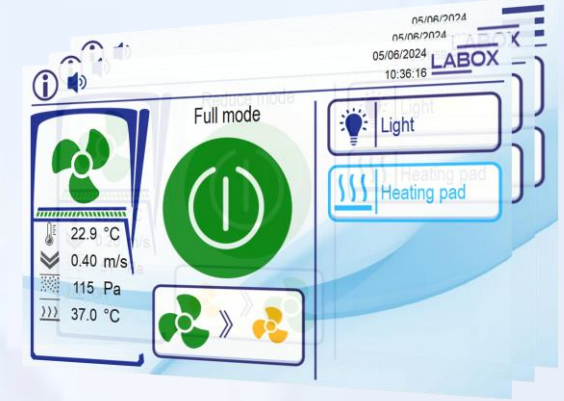
LED light

- + High level of luminosity 1100 lx
- + Top quality Made in Germany, long life
- + Cells and DNA friendly light
- + Dimmable (0-100%)

CR2000

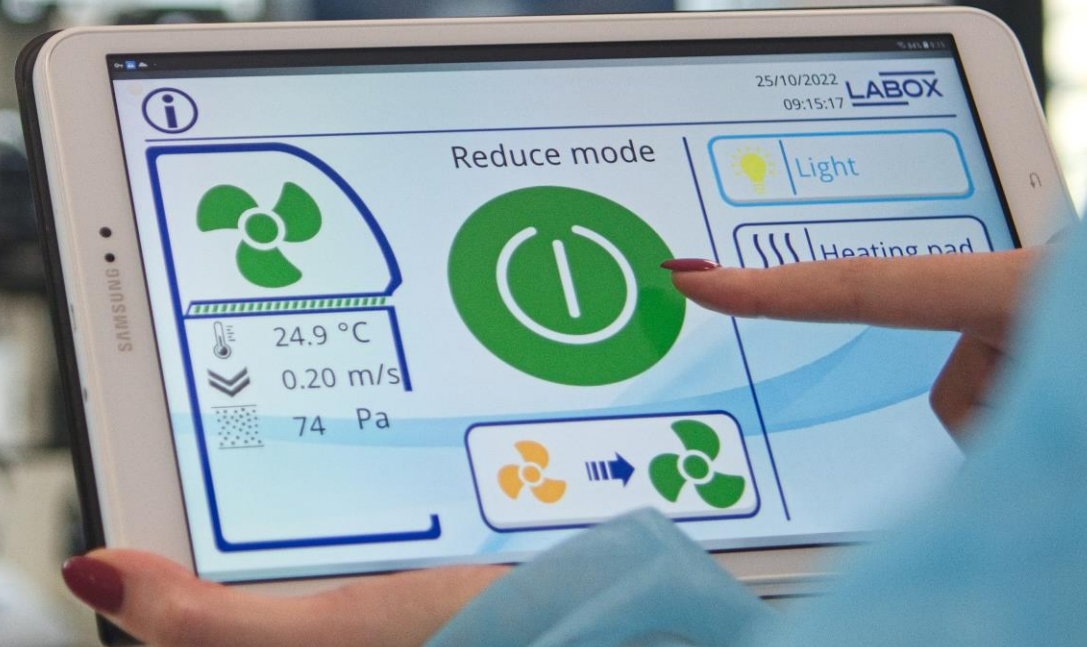
smart control unit

- + State-of-the-art, fully electronic control of all functions of the workstation with intuitive operation
- + LCD touch screen
- + Complete information of all main parameters
- + Notification and alarms by email
- + Remote control (Android, iOS) control the workstation from your office or home
- + Continuous monitoring (temperature, pressure drop, airflow speed)
- + Complete communication in Czech, English, Spanish. Others languages can be easily added
- + Remote service management, remote user training
- + CTM Advanced central timer module for automatic operation of the Workstation and main accessories, including individual control of heating surfaces, ionizing bar, etc.
- + Scalable access rights (user, supervisor, service, etc.)
- + In time notification for the requirement of filter replacement, qualification, maintenance and others
- + Audit trail - registration of changes
- + PID control for temperature control - ensure accurate and fast heating of the heating surfaces. Heating surface is ready for operation only in 40 minutes.
- + Firmware is continuously developing bringing updates and new features



Ultimate Remote control

- + Most advanced remote control system for the workstation – secure and user friendly
- + Same screen like on the workstation display
- + Maximum time management effectivity – switch on the workstation and heating surface prior entering to the lab. No more waiting for stabilization
- + Available in Android, iOS, or Windows
- + Remote service management
- + FW update – be uptodate, get a new feature, stay in line with current regulation



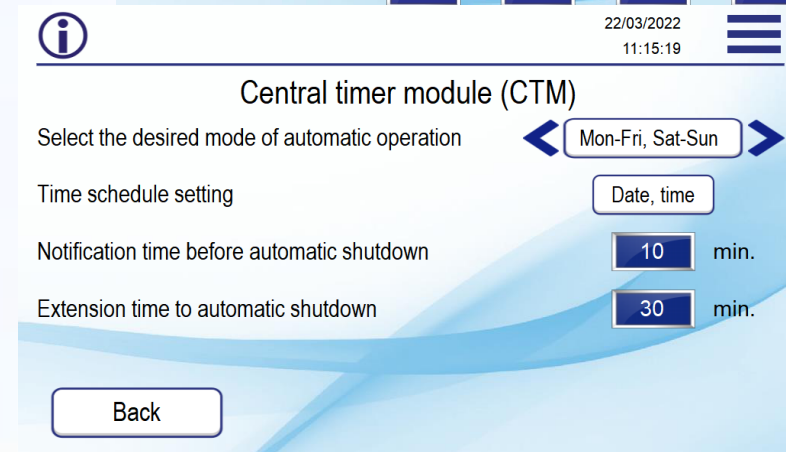
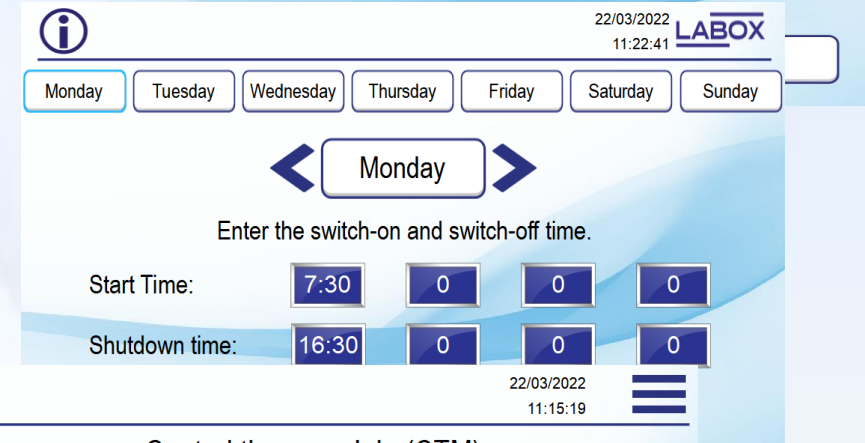
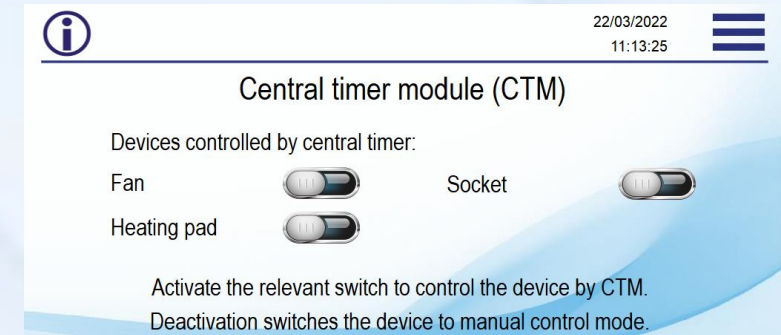
Laminar airflow workstations FBB, MBB
powered by CR2000 SMART Control System

LABOX

Central Timer Module (CTM)

it is **state of the art advanced timer**. User fully manages what has to be operate in the same time. Not only Workstation (fan) but also accessories (heating surface, electrical socket, etc).

- ➔ save operator time
- ➔ ultimate solution in automatic operation
- ➔ up to 4 time slots for each day
- ➔ early notification before the auto shutdown



Audit Trail

registration of parameters changes, alarms and events

- + change of the temperature setup, sensors or fan failure, low speed, qualification period, HEPA filter replacement recommendation, remote connections, etc.
- + professional, including the export to email or USB

The screenshot displays the LABOX interface. At the top right, the date and time are 10/06/2022 16:19:58. The interface includes a sidebar menu with options: Language, Display, Date, time, Audit trail (highlighted), Monitoring, and Back. The main area shows the 'Alarm log' table with columns Date, Time, and Event message. A red alert message is visible: '06/10/2022 16:17:26 Temperature sensor – risk of overheating – sens'. Below the sidebar, there are buttons for Language, Display, Date, time, Audit trail, Monitoring, and Back. At the bottom right, there is a 'Save' button and a back arrow.

Date	Time	Event message
06/10/2022	16:17:26	Temperature sensor – risk of overheating – sens

Advanced Notification system

Full information about any alarm and notification

- ➔ Acustical and visual notification with all info
- ➔ Voice notification for main information
- ➔ Push notification (Android/iOS)
- ➔ For main alarms there are two alarm levels – alert / action limits (according to GMP)
e.g. HEPA filter clogging: alert limit - in 3 up 6 month the HEPA should be replaced, action limit: HEPA filter should be replaced immediately



Continuous monitoring

CR2000 new functions (for new and existing workstations)

- Temperature of the heating surface
- Temperature of working space, pressure drop on main filter, airflow velocity
- Export data to e-mail, or USB
- Data saving every 60 minutes
- Useful for quality assurance and troubleshooting

The screenshot displays the LABOX CR2000 monitoring interface. At the top right, the date and time are 19/07/2022 13:21:51. The interface includes a sidebar menu with options: Language, Display, Date, time, Audit trail, Monitoring, and Back. The main display area shows a table titled 'Airflow speed' with columns for No., Time, Date, and m/s. The table contains 8 rows of data. A GMP Compliant logo is overlaid on the left side of the interface. At the bottom, there are buttons for 'Back' and 'Save', and a status bar showing 'Monitoring 10725 03:17:24 13/07/2022 22.7'.

No.	Time	Date	m/s
17	13:21:30	19/07/2022	0.37
16	13:21:24	19/07/2022	0.40
15	13:21:22	19/07/2022	0.40
14	13:21:19	19/07/2022	0.40
13	13:21:17	19/07/2022	0.40
12	13:21:14	19/07/2022	0.33
11	13:21:09	19/07/2022	0.20
10	13:21:07	19/07/2022	0.20

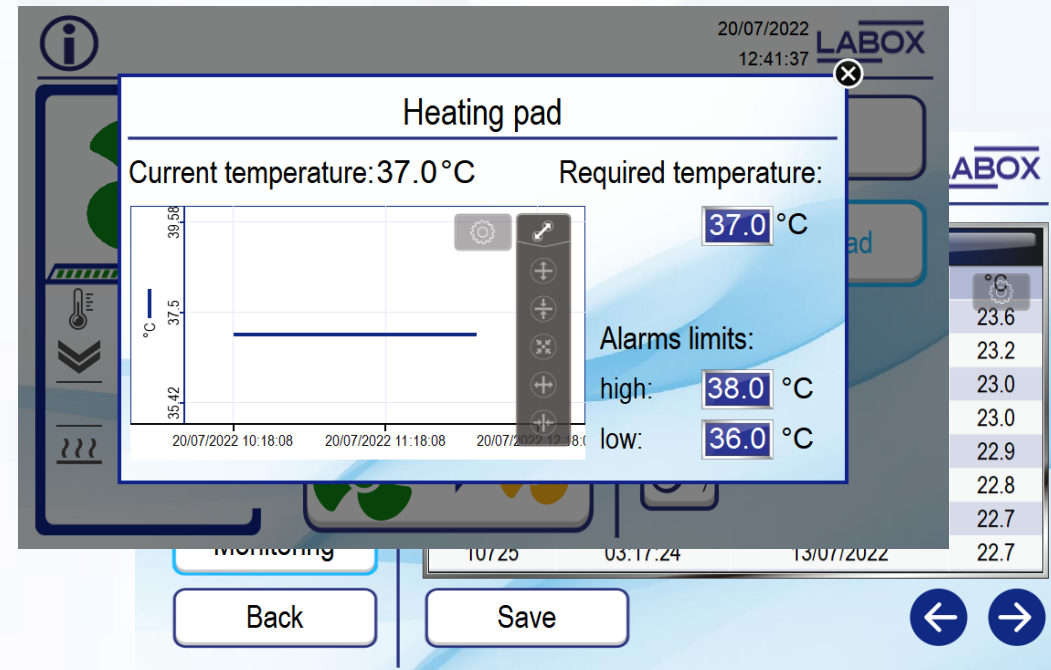
GMP Compliant
Clean room technology solution

Monitoring 10725 03:17:24 13/07/2022 22.7

Advanced control of heating surface

The heating surfaces get a new great feature. Easy way how to modify the required temperature even during operation.

- Possibility to modify easily required temp if e.g. different laboratory glass is used during the same shift
- Accessible from main page
- Enhanced data visualisation (graph)
- Temp and alarm modification are recorded in audittrail
- This solution is saving the operator time



EasyShare video streaming

- + **USB** camera can be connected to CR2000
- + **Compatible with most type of WEB cameras** (also standard pc webcam)
- + **Camera can be connected to the USB port** on front panel (standard delivery), or USB port can be installed inside the working space (optional)
- + **Great for working space surveillance**
- + **WEB Streaming (RTSP protocol) into the local network** (e.g. for training students, for clients, witness, etc.)
- + Beside the USB camera, the stream from **IP camera** can be connected to CR2000



Surveillance monitoring center



Complete up-to-date information and [remote access to all workstations](#) controlled by SMART CR2000 control.

MODBUS protocol



- + Most popular, secure, industrial protocol, used for transmitting information between electronic devices
- + Connection to **BMS**
- + Connection to **EMS**
- + **Easy integration** in current advanced **med lab systems**
- + **Communication with SQL**, including the TLS/SSL encryption
- + Enabling remote control of the workstation by BMS system

```
each: function(e, t, n) {  
  var r, i = 0,  
      o = e.length,  
      a = N(e);  
  if (n) {  
    if (a) {  
      for (; o > i; i++)  
        if (r = t.apply(e[i], n), r === !1) break  
    } else  
      for (i in e)  
        if (r = t.apply(e[i], n), r === !1) break  
    } else if (a) {  
      for (; o > i; i++)  
        if (r = t.call(e[i], i, e[i]), r === !1) break  
    } else  
      for (i in e)  
        if (r = t.call(e[i], i, e[i]), r === !1) break;  
    return e  
  },  
  trim: b && !b.call("\uffff\u00a0") ? function(e) {  
    return null == e ? "" : b.call(e)  
  } : function(e) {  
    return null == e ? "" : (e + "").replace(C, "")  
  },  
  makeArray: function(e, t) {  
    var n = t || [];  
    return null != e && (N(Object(e)) ? x.merge(n, "string" == typeof e ? [e] : e) : h.call(n, e)), n  
  },  
  isArray: function(e, t, n) {  
    var r;  
    if (!t) {  
      if (!n) return n.call(t, e, n);  
      for (r = t.length, n = n ? 0 > n ? Math.max(0, r + n) : n : 0; r > n; n++)  
        if (n in t && t[n] === e) return n  
    }  
  }
```

Terminology: EMS - Environmental monitoring system), BMS – Building monitoring system

Optional accessories

- ✚ Stand with wheels
- ✚ Electrical adjustable height stand (600-1100mm)
- ✚ Higher level of filtration efficiency - ULPA with 99.995% efficiency
- ✚ Integration of NIKON microscopes (stands P-DSL32 LED or P-DFS32 Fiber Diascopic Illumination), OLYMPUS ZX10, or others if agreed
- ✚ Integration of incubator Labotect C16, or Selutec TECO 10
- ✚ The front panel can be made in various colours, to match the laboratory's colour standard.
- ✚ Heating surface integration
- ✚ Full LCD panel integration
- ✚ Shelf with electrical HUB under the working desk
- ✚ Ionizing bar for the elimination of space static electricity
- ✚ Electrical sockets, USB/ethernet/HDMI sockets, bushings, etc
- ✚ Holders, shelves, etc.
- ✚ UPS

our clients

Reprofit International, MMI Czech, Sanatorium Helios
IVF Clinic, Gest IVF, Gennet, FertilityPort Prague, Pronatal,
Prague Fertility Centre, FutureLife, NEXT laboratories, EUROPE IVF International,
Ferticare (member of IVI clinics - GeneralLife)
IVF Zentren Prof. Zech, IVF Clinic, IVF Cube, GYN – FIV,
ISCARE I.V.F., UNICA, Sanus, GYN – FIV, Dr. Reich Vietnam,
GeneralLife clinics, INAFER Tecnologia y servicios S.L., CIRH FIV Lleida,
Marbella International Hospital SA,
Centro médico-quirúrgico hla ramón y cajal, FIV Valencia
EMB Castilla, Grupo Vistahermosa, IGMR Drs. Ordás Y Palomo
Przychodnia Lekarska"nOvum,, LTD Firm "Ecomed,,
AL AIN Fertility Center (UAE), Hong Ngoc IVF Center

And other IVF Centers in Czech republic, Europe, Asia

LABOX WORKSTATIONS OPERATES WORLDWIDE



details



**laminar airflow
workstation
FBB IVF**



**laminar airflow
workstation
FBB IVF**



**laminar airflow
workstation
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**laminar airflow
workstation
FBB IVF**

**laminar airflow
workstation
FBB IVF**



FBB-IVF-12

- + recessed LCD panel 19"
- + CO2 incubator Labotect recessed in the rear working space wall
- + heating surfaces with Nikon PSL32 stativ and Nikon 1270 microscope
- + Multipurpose shelf under desk with electrical HUB
- + Blue color front panel



LABOX PRESENTATION

FBB-IVF-18

- recessed All-in-one LCD panel 19"
- two CO₂ incubators Selutec recessed in the rear working space wall
- two heating surfaces with Nikon CD-S stativ



FBB-IVF-20

- + recessed All-in-one LCD panel 19"
- + CO2 incubators Selutec recessed in the rear working space wall
- + Antivibration platform passive version LFM for Eppendorf-Nikon micromanipulator
- + heating surface with Nikon PDSL32 stativ
- + electrical height adjustable stand EHAS 600-110 cm
- + Front panel in blue
- + multipurpose shelf with electric HUB
- + magnetic bar



LABOX PRESENTATION

FBB-IVF-12

- + recessed LCD panel 19"
- + electrical height adjustable stand **EHAS** 600-110 cm
- + multipurpose shelf with electric HUB
- + magnetic bar





Huge IVF lab in Prague

- + nine workstations
- + 2x ISCI, 1x andrology, 6x embryology
- + 2x antivibration tables
- + monitoring center for CR2000

Standard tests before delivery

All workstations are setup and tested

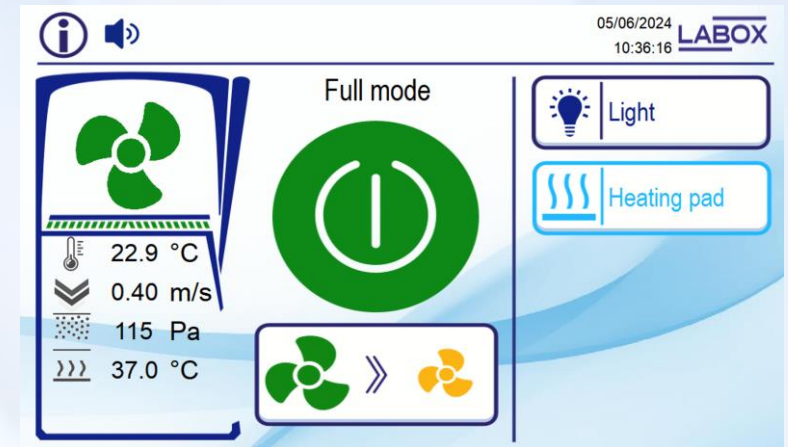
- ✚ Mechanical and visual tests
- ✚ Speed Sensor calibration, check of the initial pressure drop of the HEPA filter
- ✚ HEPA filter challenge test
- ✚ Airborne particle count
- ✚ Airflow velocity, uniformity test
- ✚ Temperature mapping of the heating surface (if installed)



Innovation in progress

Laminar airflow workstation
FBB IVF

- + One electronic baseline for all LFC cabinets (FBB, MBB)
- + New accessories
- + Voice processor (status and alarms Messages) EN, ES, CZ (others languages on demand)
- + IFTTT - automation & workflow





**complete IVF
professional
solution**

LABOX

LAMINAR AIRFLOW WORKSTATION PROFESSIONAL LINE

- ✦ The most efficient solution for working with micro-manipulators in a laminar airflow area with cleanliness class A environment
- ✦ The laminar working area is physically separated from the working desk
- ✦ Ultimate anti-vibration solution
- ✦ Advanced control system CR2000



ISCI/IMSI
MICROMANIPULATION
FRIENDLY LFC SYSTEM

FBB-R

Solution on the photo is composed by an FBB-R laminar flow cabinet and a LFM75 (1st generation) working table with an integrated anti-vibration desk



Cells and Tissues
friendly technology



low
noise



ultimate AV
solution



smart
technology

LABOX

LAMINAR AIRFLOW
WORKSTATION

PROFESSIONAL LINE

- + Advanced control system CR2000
- + Full microscope and heating surface integration
- + Motorized front window
- + Low vibration level
- + Top level security features
- + Full remote control and remote service management



MICROBIOLOGICAL
SAFETY CABINET
EN12469 class II.



MBB-IVF



Cells and Tissues
friendly technology



low
noise



LABOX

LAMINAR AIRFLOW WORKSTATION PROFESSIONAL LINE

- + Advanced control system CR2000
- + Full microscope and heating surface integration
- + CTM advanced central timer
- + Full remote control and remote service management
- + Real low noise operation
- + Low operation costs



LAMINAR AIRFLOW WORKSTATION FOR IVF **FBB-IVF**



Cells and Tissues
friendly technology



low
noise

LABOX

WORKSTATION PROFESSIONAL LINE

- ✦ **Ultimate antivibration system** designed mainly for IVF micro-manipulation
- ✦ Comfortable and ergonomic design
- ✦ Easy to upgrade from passive to active solution
- ✦ Maintenance free solution
- ✦ Available also with electric state-of-the-art height adjustable stand



ADVANCED
ANTIVIBRATION TABLE

LFM





- + CUSTOMER ORIENTATION
- + TREND TRACKING AND TRACKING OF LEGISLATIVE REQUIREMENTS
- + STRONG RELATIONSHIP WITH FINAL USERS
- + EXPERIENCED TECHNICAL TEAM
- + LIFETIME SERVICE SUPPORT
- + PROFESSIONAL REMOTE SERVICE
- + KNOWLEDGE AND EXPERIENCE SINCE 1993

**your
specialist
in IVF
technology**

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LABOX



**EXCELLENT TECHNOLOGY
AND CUTTING EDGE
KNOWLEDGE**



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