

A large orange circle is partially obscured by a horizontal orange bar that spans across the top of the page. The bar has a slight gradient and ends with three vertical orange bars of varying heights on the right side.

FreyGen ALF

IVFtech
for the next generation

4 and 6 chamber

1 About the IVFtech FreyGen ALF incubator

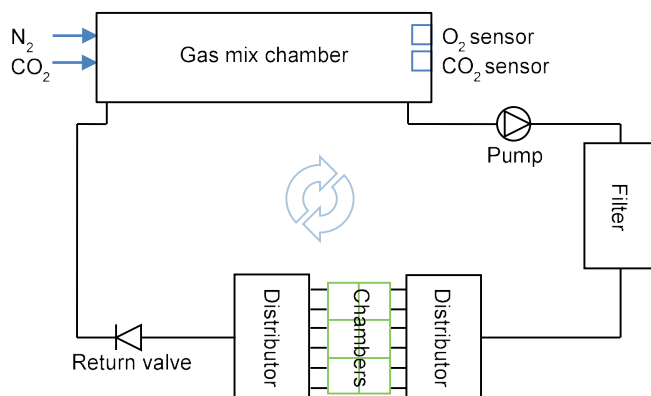
1.1 Intended use of the incubator

The FreyGen ALF incubator is designed to protect IVF samples by providing a stable, clean, and turbulence-free atmosphere with a constant temperature and controlled levels of CO₂ and O₂. This incubator is thus designed to protect IVF samples from particle contaminants and non-optimal growth conditions. The FreyGen ALF incubator is meant to be used by health professionals trained in performing IVF of embryos and in using the FreyGen ALF incubator. The incubator is intended to be used at room temperature as a stand-alone equipment at IVF clinicals and laboratories.

1.2 Description of the incubator

The FreyGen ALF incubator consists of a metal frame and has four or six chambers that each can hold up to four IVF petri dishes (eight 35mm petri dishes with flat dish insert). Each chamber can be opened and closed using individual lids. Both the chambers and the lids are made of anodized aluminum and the chambers are sealed with a medical grade sealing to ensure optimal protection of the samples. Each lid has a scratch resistant glass cover and a display that shows temperature readouts for the individual chamber.

The gas flows through all the incubator chambers in a closed loop system. The incubator has an internal mixing chamber, an internal pump, and an internal fan. This system ensures an extremely stable and uniform gas distribution throughout all the chambers. The gas flow for a 6 chamber FreyGen ALF incubator is illustrated below. The inlet connectors for N₂ and CO₂ are placed at the back of the incubator. The gas sample ports for test and calibration are placed behind the front cover together with the filter. The incubator uses a high efficiency HEPA & VOC filter that is tested and manufactured according to cGMP and ISO 9001/13485.



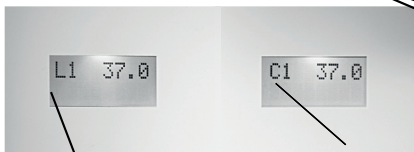
The incubator sensors constantly monitor the CO₂ and O₂ levels as well as the temperatures in each chamber. If one of these parameters exceeds the predefined limits, a visual and acoustic alarm is turned on. On the back of the incubator, you also find an XLR connector. This connector can be used to connect the incubator to an external alarm monitoring system.

The incubator has a touch screen next to the front cover. This touch screen is used to read the currently measured temperature and gas levels, to set target temperature and gas levels, for controlling the alarms, and for calibration of the incubator.

The power plug is placed on the back of the incubator together with the on/off switch.

Illustration of a 6 chamber FreyGen ALF incubator seen from the front:

Lid temperature display for chamber 1:



C: Bottom chamber temperature

L: Lid temperature

Handle for closing the lid

Lid

Chamber

Dish insert

Sealing

IVFtech

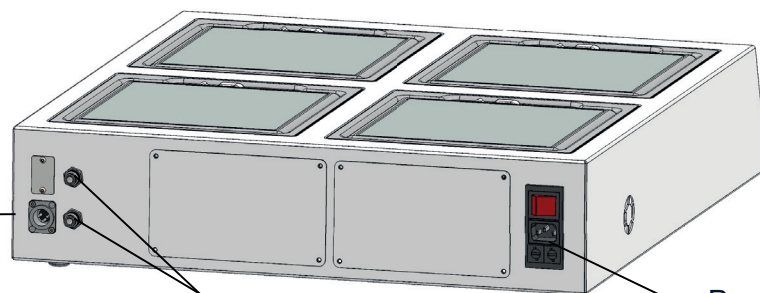
Touch screen interface

Behind the front cover (gas sample ports and HEPA & VOC filter):



Filter direction indication arrows

Illustration of a 4 chamber FreyGen ALF incubator seen from the



XLR connector
(external alarm port)

Inlet connectors for N₂ and CO₂

Power plug

4 and 6 chamber

Illustration of the "WORK" screen for a 4 chamber incubator

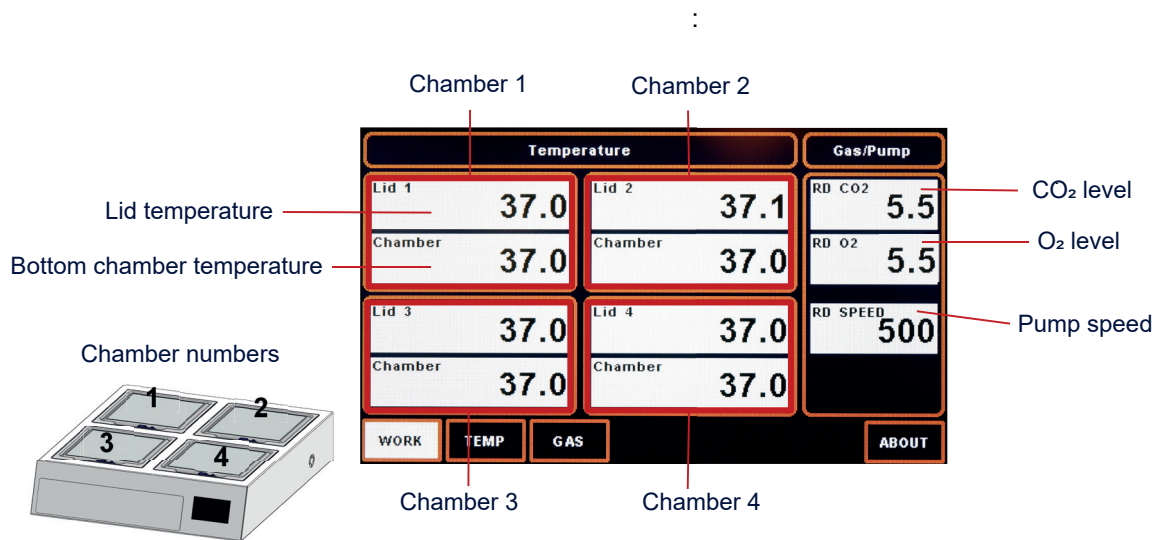
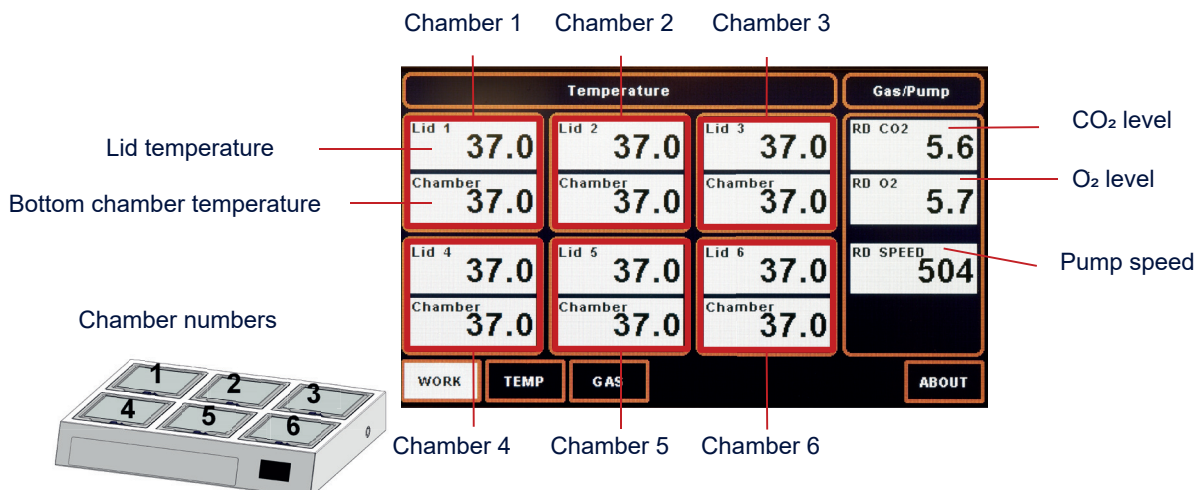


Illustration of the "WORK" screen for a 6 chamber incubator



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- Embryo safe environment control
 - Optimal growth potential due to controllable environment stable temperature and atmosphere
 - Each chamber fits 4 dishes, so all in all 16-48 separate dishes are possible.
 - Individually heated chambers, Individually heated bottom and top pads
 - 2 gas sensors in mixing chamber (CO₂ + O₂) to ensure optimal mixture
 - Set points for temperature and gas
 - Offsets for temperature and gas (calibration feature)
 - Big mixing chamber for rapid recovery when opening/closing lids
 - Dedicated gas sampling ports for each chamber
 - HEPA+VOC filtered air stream
 - No premix gas needed, built-in gas mixer for CO₂ and N₂
 - CO₂ + N₂ input gasses, low pressure inlet
 - Low steady state power consumption (95W) at 37 degrees Celsius
 - Stable temperature control, quick recovery
 - Stable and precise gas control, rapid recovery
 - Low gas consumption
 - Effortless cleaning due to advanced surface treatment of chambers, making for a spotless working environment

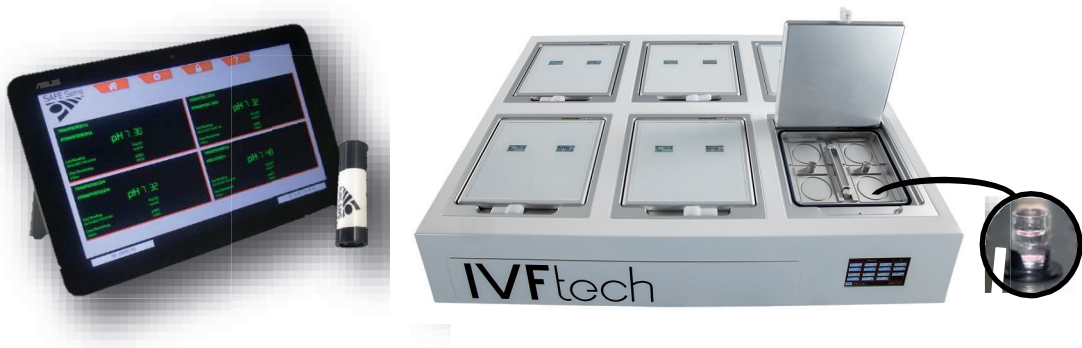
4 and 6 chamber

Alarm

The sensors constantly monitor the CO₂ and O₂ levels as well as the temperature in each chamber. If any of these parameters exceeds the predefined limits, a visual and an acoustic alarm is turned on. For additional safety, the incubator can also be connected directly to an external alarm monitoring system of the relay type. This allows the user to gain constant information about the state of the incubator. The external alarm system can also warn the user in case of a power cut.



IVFtech Benchtop Incubator System WITH SAFE SENS® INTEGRATION



The Integration of SAFE Sens Technology Into The IVFtech Benchtop System



Software for Data Recording and Automatic Alerts by E-mail and/or Text



Non-Invasive Without Using Valuable Dish Space every 30 minutes up to 7 days



Monitoring Without Staff Intervention or Lid Openings With Accuracy ± 0.05 pH units



Data Trending to Complement Quality Assurance and Quality Improvement



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