

Ensuring Unique Environment for Human Embryo Culture

Mini MIRI®

ESCO
MEDICAL

Dry and Humidity Multiroom Incubator for IVF

This equipment is a CE-marked device and is in conformity with the essential requirements of the medical devices EU regulation 2017/745.



Design Excellence – Superior Quality

Mini MIRI® – A Compact Incubator
for All Your Needs



Table of Contents

Mini MIRI®4

Comes in two models6

Control panel, display and data logging software8

Accessories9

General Specifications10

Ordering Information10



Mini MIRI[®]



Built on the robust and reliable MIRI® design, the Mini MIRI® Incubator provides a stable culture environment. The compact design and direct heat regulation further translate to faster temperature and gas recovery.

FEATURES:

Heated Lid

- Prevents condensation.
- Enhances temperature regulation and recovery.
- Excellent uniformity between the lid and the bottom.
 - Uniformity: ± 0.1 °C

Direct Heat Transfer

Provides superior temperature stability.

Dual Chamber System

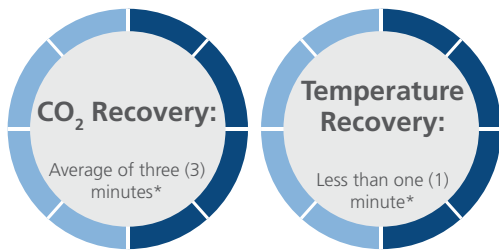
- Any disruption (e.g. temperature drop after opening the lid) has zero impact on the rest of the system. Furthermore, calibration is much simpler since there is no crossover of heat from adjacent chamber.
- Small chamber volume allows for quick gas and temperature recovery. It takes less than three (3) and one (1) minute respectively when the lid has not been opened for more than 10 sec.

Ergonomic Rotatory Key

The Rotatory Key is used to access the menu, toggle between the settings and set parameter values.

Superior Incubation Environment

The Mini MIRI® comes with 4 temperature-controlled points, 2 for each chamber - one at the bottom and one on the heated lid. The heated lid is an added bonus as it improves temperature uniformity throughout the Mini MIRI®.



Fast Recovery

One of the benefits of our multiroom incubators is their fast recovery time after opening the lid. This is crucial in order to maintain optimal parameters for embryo incubation.

*If the lid has not been open for more than 10 seconds (based on internal testing; performance may vary depending on various factors and environmental conditions).



The Little Details Count

IVF practitioners deal with precious and sensitive embryos, and often, the little details make a big difference. The Mini MIRI® has a large LED display that can be easily seen from a distance. Also, the glass lid tops, while acting as chamber insulators, can be written on — a very useful feature for organization.



A Built-In Gas Mixer

The built-in gas mixer and the high-performance CO₂ and O₂ sensors allow to input pure gases and accurately control the gas phase composition within the chambers. Also, it gives flexibility over the desired gas input.*

*Input of pure gases is recommended.



Stress-free Validation

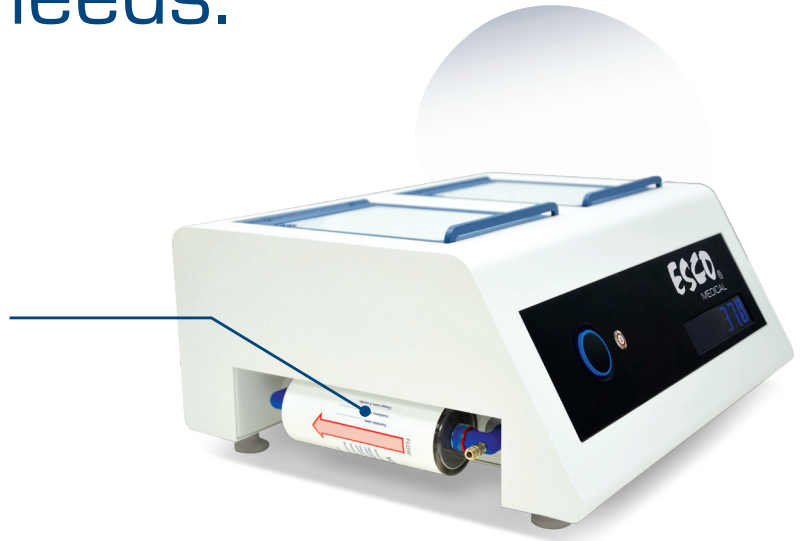
Built-in PT1000 Temperature Sensors and gas sampling ports are completely independent from the main circuitry. Because of this, the Mini MIRI® can be connected to an external device such as the Escó MIRI® GA for gas and temperature validation.

Mini MIRI[®] for your culture's environmental needs.

Mini MIRI[®] Dry

High Quality Airstream

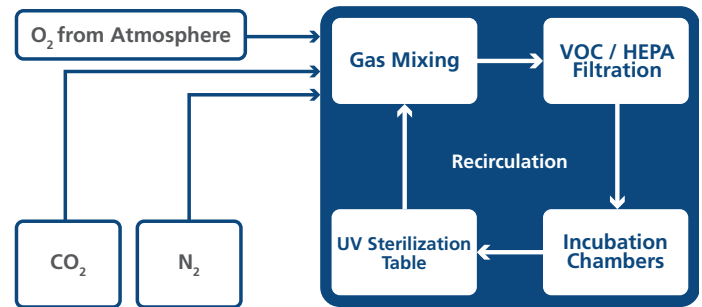
The filter module can be easily replaced once used. The gas in the Mini MIRI[®] Dry is continuously recirculated through a VOC/HEPA filter and a UV-C (254 nm) light that sterilizes the recirculated airstream before it passes through the filter.



To learn more about the Mini MIRI[®] Dry, scan this QR code.



Airflow Diagram



Mini MIRI[®] Humidity

Built-in passive humidification system.

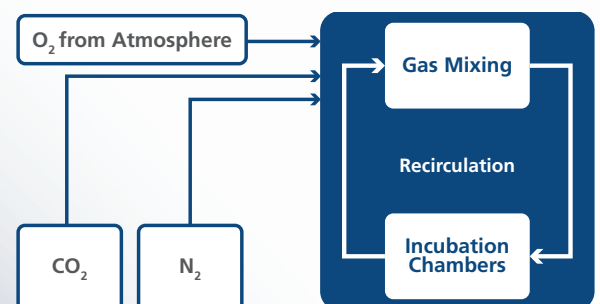
The water bottle is located on the side of the device for easy refilling and control of the water level.



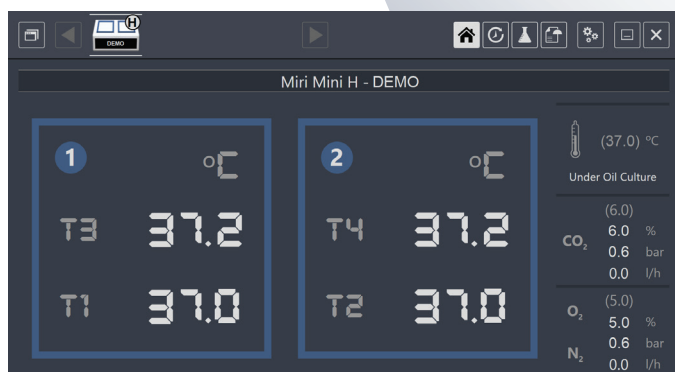
To learn more about the Mini MIRI[®] Humidity, scan this QR code.



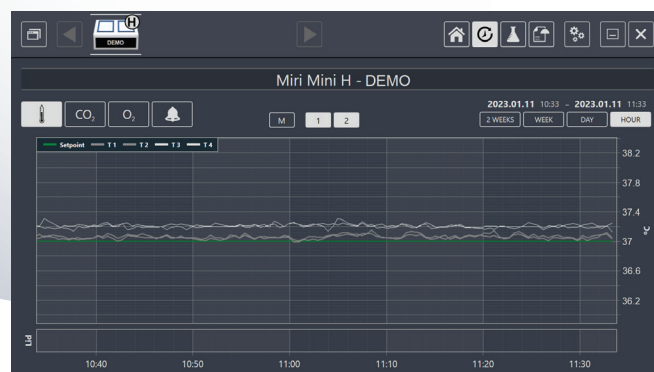
Airflow Diagram



Full-featured and user-friendly Control Panel, Display, and data logging software



Complete parameters are displayed.
Histories of any alarm events are logged.



The data logger stores continuous performance data of the machine throughout its use. These can be viewed in graphs.



Conditions that put the Mini MIRI® Dry and Mini MIRI® Humidity into alarm state are recorded. It is possible for the software to send email alerts as well.

The Mini MIRI® Dry and Mini MIRI® Humidity can be connected to an easy to-use, feature-packed data logging software installed on any ordinary PC and connected via USB

Multiple machines can be connected and managed from a single computer. All real-time parameters of the machine can be conveniently viewed. These include the temperature of all monitored temperature and gas concentration points, gas input pressures, gas flow rates, current gas readings, and all setpoints.

All performance data of the machine including alarms are continuously logged and can be viewed in graphs. The data logger also automatically generate reports weekly which makes it more convenient for the user.



Accessories

Heating Optimization Plates

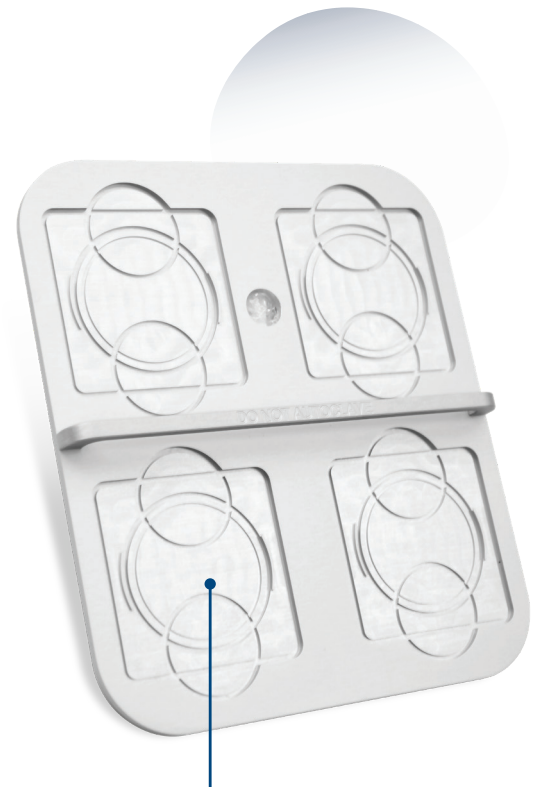
Each chamber contains a heating optimization plate to facilitate heat transfer directly to the culture dishes.

- Removable for easier cleaning.
- A selection of heating optimization plates is available for various dish sizes.

Total Capacity

Heating plates customized for several types of dishes:

- 4 x Falcon® Ø 50/60 mm
- 8 x Falcon® Ø 35 mm
- 4 x Nunc™ Ø 54/60mm
- 8 x Nunc™ Ø 35 mm
- 4 x Vitrolife Dishes
- 4 x LifeGlobal® GPS Dishes
- 4 x SparMED Oosafe® 4-well dishes
- 4 x SparMED Oosafe® Ø 55/60 mm
- 8 x SparMED Oosafe® Ø 35 mm
- 6 x BIRR Ø 35 mm
- 6 x BIRR Ø 60 mm



The dishes fit into the cutouts so that the heat is directly transferred to the media.



Nunc™



Falcon®



Vitrolife



LifeGlobal® GPS



SparMED - Oosafe®



BIRR

General Specifications

Model	Mini MIRI® Dry	Mini MIRI® Humidity
Overall Dimensions (W x D x H)	525 x 420 x 230 mm (20.7 x 16.5 x 9.1")	
Chamber Dimensions	200 x 176 x 25 mm (7.9 x 6.9 x 1")	
Power Supply	115/230V, 50/60 Hz	
Power Consumption	160 W	
Temperature Control Range	24.9 – 40.0 °C	
* CO ₂ Gas Consumption	<2 L/h	< 4 L/h
**N ₂ Gas Consumption	<8 L/h	<12 L/h
CO ₂ Control Range	1.9 % – 9.9%	
O ₂ Control Range	3.9 % – 19.9%	
Input Gas Pressure (CO ₂)	0.4 – 0.6 bar (5.80 – 8.70 PSI)	
Operating Altitude	Up to 2000 meters (6560 feet or 89kPa – 106kPa)	
Net Weight	22 kg (48.5 lbs)	
Shipping Weight	30 kg (66.1 lbs) (Including the pallet's weight)	
Shipping Dimension	630 x 525 x 500 mm (24.8 x 20.7 x 19.7") (device on the pallet)	

* Under normal condition (CO₂ setpoint reached at 6.0%, all lids closed). ** Under normal condition (O₂ setpoint reached at 5.0%, all lids closed).

Ordering Information

Mini MIRI® Multiroom Incubator		
Item Code	Model Code	Description
Device		
2070143	MRI-MINI-D-8	Mini MIRI® Dry Multiroom Incubator, 230V, 50/60Hz
2070144	MRI-MINI-D-9	Mini MIRI® Dry Multiroom Incubator, 115V, 50/60Hz
2070155	MRI-MINI-H-8	Mini MIRI® Humidity Multiroom Incubator, 230V, 50/60Hz
2070156	MRI-MINI-H-9	Mini MIRI® Humidity Multiroom Incubator, 115V, 50/60Hz
Accessories		
1320011	MRA-1007	VOC/HEPA filter (recommended to be changed every 3 months)
1320142	MRI-DATA	Datalogger Package with an Intel® NUC Box, monitor etc.
1320045	MRI-GA	MIRI® GA CO ₂ / O ₂ & Temperature Validation Unit, 115V / 230V (only for Mini MIRI® Dry Multiroom Incubator)
Heating Optimization Plates		
Item Code	Model Code	Description
1320003	MRA-FD	Heating optimization plate for Falcon® Dishes
1320004	MRA-ND	Heating optimization plate for Nunc™ Dishes
1320070	MRA-VD	Heating optimization plate for Vitrolife Dishes
1320099	MRA-NID	Heating optimization plate for Nipro™ Dishes
1320100	MRA-LD	Heating optimization plate for LifeGlobal® GPS Dishes
1320101	MRA-PD	Heating optimization plate without footprint for Plain Dishes
1320118	MRA-OD	Heating optimization plate for SparMED Oosafe®
1320507	MRA-BIRR	Heating optimization plate for BIRR Dishes



ESCO LIFESCIENCES GROUP



Esco Medical Products:

MIRI® Multiroom Incubator
MIRI® Humidity Multiroom Incubator
MIRI® II-12 Multiroom Incubator
Mini MIRI® Dry Multiroom Incubator
Mini MIRI® Humidity Multiroom Incubator

MIRI® TL6 Time-Lapse Incubator
MIRI® TL12 Time-Lapse Incubator
Multi-Zone ART Workstation
MIRI® Laminar Flow Cabinet
MIRI® Evidence RFID Witnessing & Traceability System

CelCulture® CO₂ Incubator
MIRI® GA (Gas and Temperature Validation Unit)
MIRI® AVT
CultureCoin®

Infertility is a problem that has a significant social, psychological, and economic impact on afflicted individuals and couples. It is a global concern that knows no race or creed. It has been estimated that 1 in 6 couples struggle with infertility at least once in their lifetime.

Esco Medical is one of the divisions of the Esco Lifesciences Group. We provide innovative technological solutions for fertility clinics and laboratories. We aim to become the leading manufacturer of high-quality equipment such as long-term embryo incubators, ART workstations, anti-vibration tables, and time-lapse incubators.

Our products are designed with the Silent Embryo Hypothesis as a guiding principle. The Silent Embryo Hypothesis states that the less disturbed an embryo can remain, the better its developmental potential will be. Most of our products are designed in Denmark and made in the EU. Our primary focus is to increase pregnancy success rates and patient satisfaction.

ESCO
MEDICAL



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