

Animal IVF Equipment Overview

ESCO
MEDICAL



Multiroom Incubators

MIRI® Incubation System

The Top-of-the-Line Features of the MIRI® Incubation System

- **Heated Lid**
Prevents condensation. Enhances temperature regulation.
- **Direct Heat Transfer**
Provides superior temperature stability.
- **Completely Independent Chambers**
Any disruption (e.g., temperature drop after opening the lid) has zero impact on the rest of the system.
- **A Complete Incubation Environment**
 - Has a built-in gas mixer. Premixed gas is not required.
 - Built-in pH measuring system and data logging system.

MIRI® TL Time-Lapse Incubator



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

Time-Lapse Monitoring

Time-Lapse video monitoring enables detailed scoring of cultured embryos to better predict embryo development and implantation potential.

Comes in Two Variants

- MIRI® TL6: Six individual chambers.
- MIRI® TL12: Twelve individual chambers.

A Complete Incubation Environment

- Premixed gas is not required and cannot be used in MIRI® TL.
- Built-in pH measuring system and data logging system.

Fast Recovery

- Temperature recovery: less than one (1) minute.*
- CO₂ recovery: average of three (3) minutes.*

*If the lid has not been open for more than 30 seconds (based on internal testing; performance may vary depending on various factors and environmental conditions).

Two Temperature Mode Options

- Single - Uniform set points for all chambers.
- Multi - Individual set points for each chamber.

MIRI® Multiroom Incubator



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

Recirculated Gas System

The gas in the MIRI® is recirculated through a VOC/HEPA Filtration system, which effectively removes Volatile Organic Compounds (VOCs) and particulates larger than 0.3 µm.

Solid Validation System

- Six (6) PT1000 sensors and Gas ports for validation outputs
- External Data Logging.
- Alarm relay contact.

Supreme Capacity

Total capacity up to 48 standard culture dishes.



CultureCoin®



A Culture dish, exclusively designed for the MIRI® TL.

One (1) MIRI® TL chamber can hold one (1) CultureCoin®. Each dish can accommodate up to fourteen (14) embryos, each with a numbered well assignment. The MIRI® TL6 can hold up to 84 embryos, and the MIRI® TL12 up to 168 embryos.

- Ergonomic design for easy handling and location of embryos.
- Separate well for pH measurements.
- Corona plasma treated surface for the effective prevention of bubble formation.
- Packed in 1 dish pouches and delivered in boxes of 25 pcs.

CelCulture® CO₂ Incubator



CelCulture® is equipped with a 90°C Moist Heat Decontamination System evaluated by HPA-UK. This incubator utilizes its ULPA filter to keep the chamber at ISO Class 5 cleanliness. It offers rapid parameter recovery and has ISOCIDE™ antimicrobial coating. It can be fitted with an optional Inner Door Kit (which reduces contamination risk) and other accessories for specialized applications. In addition, it can be set up on a floor stand with casters, a roller base, or a floor stand with adjustable feet.

CelCulture® CO₂ Incubators are available in 3 sizes: 50 L, 170 L, and 240 L.

Multi-Zone ART Workstation



This is the only workstation with built-in incubation chambers and a tri-gas mixer.

Multi-Zone Heating System

One set point for up to 12 independent zones per working area with their own heating elements and sensors allows for excellent uniformity.

Less Noise, Less vibrations

The Esco Multi-Zone ART Workstation's state-of-the-art design and features deliver less noise and less vibrations. This makes it suitable for sensitive microscopic work.

Non-radiating Stainless Steel Tabletop

The main material used in the tabletop surface is stainless steel, while aluminum is used for covering the bottom of the tabletop.

Superior Air Cleanliness

Esco workstations provide ISO Class 3 air cleanliness within the workzone as per ISO 14644.1.



VIVA® Animal Research Containment Workstations



The Portable Safety Solution for Animal Research Laboratories

Esco's range of VIVA® animal research products are designed for laboratory research applications involving certain animals being used in experiments, typically applied in industries like animal breeding, drug development/toxicity testing, medicine/genetic therapy, biotechnology, and more.

Key Features

- Controlled inflow, down-flow and exhaust similar to Class II Type A2 biosafety cabinet technology.
- ISO Class 3 air cleanliness within work zone. This is equivalent to Class 1 per the US Federal Standard 209E, which is 100X cleaner than Class 100 classification on standard cabinets offered by other providers.
- ULPA filter technology which operates at the typical efficiency of 99.999% at MPPS, 0.3 and 0.12 microns provides better operator, product and environmental protection than conventional HEPA filters.
- Fail-safe system shuts cabinet down automatically in case of airflow failure to ensure operator and environmental safety. Esco ISOCIDE™ powder coating prevents surface bacterial growth and enhances operator safety.





It comes in 3 variations:



VDA
**Dual Access Animal
Containment Workstation**



VA2-G4
**Universal Animal
Containment Workstation**



VBD
**Bedding Disposal Animal
Containment Workstation**



MIRI® Laminar Flow Cabinet



The MIRI® Laminar Flow Cabinet has been designed with the capability to maintain a controlled work surface for laboratory applications requiring a clean and sterile workspace, which is achieved through the use of vertical laminar airflow pattern. Clean filtered air travels from the top of the cabinet downwards onto the working surface. Laminar flow cabinets are ideal to be used for our customers who requires a clean and sterile workspace to provide good protection towards the sample.

Key Features

- ULPA Filter (ISO Class 3 Work Zone)
- ISOCIDE™ Antimicrobial Powder Coating
- Built-in Monitor (optional)
- Integrated Microscope Pole
- Outstanding Sample Protection
- Energy Efficient



Versati™ Tabletop Centrifuge



Versati™ Tabletop centrifuge stands out among the same-level products with its versatility, running features, and easy handling. It can be used with high-capacity and low-to-high-speed general-purpose centrifuge applications. It is suitable for the sperm purification process during animal IVF because of its adjustable temperature range (-20°C to +40°C).

Key Features

- Compact Design
- Incredible Flexibility
- High Temperature Ramp Rate
- Fast Pre-Cooling
- Overspeed Protection
- Over Temperature Protection



Aeris™ Conventional PCR Thermal Cycler



The Aeris™ thermal cyclers can be used for conventional PCR applications. The cycler offers the flexibility to change the thermal blocks depending on the application: from consumable PCR tubes, strips, plates, and slides. System includes excellent heating and cooling rate with accurate and uniform temperature throughout the samples.

Key Features

- Multi-block capability
- Adjustable hot lid temperature and ramp rate
- Excellent temperature accuracy and uniformity
- Can perform standalone operation
- Software allows variety of PCR conditions, can control up to 30 units via one PC
- Password protection for secure system access



MIRI® AVT (Anti-Vibration Table)



The MIRI® AVT was designed specifically for micro-manipulation procedures.

The MIRI® AVT has a mechanism for passive dampening that isolates the microscope from vibrations during Intra-Cytoplasmic Sperm Injection (ICSI) procedures.

It is constructed with a stainless steel table-top, making it easy-to-use and almost maintenance-free.



MIRI® GA Gas & Temperature Validation Unit



The MIRI® GA is a table-top device designed to make external incubator validation easier and safer.

- Capable of monitoring the temperature (PT1000 connector) as well as gas concentration, flow, and pressure.
- Can validate up to 6 chambers simultaneously 24 hours a day.
- Has an adjustable flow rate which gives it the ability to properly sample small-volume incubation chambers.
- Comes with a full data logger software which is helpful in monitoring each parameter.



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.



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