



*Enabling better fertility outcomes with first-in-class solutions*

# Fertility

Product Catalogue

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# About Esco



## Welcome to Esco

Since the establishment of Esco in 1978, we never stopped developing, providing, and delivering innovative solutions. From one, we have progressed into four business units with a worldwide presence, namely Esco Scientific, Esco Healthcare, Esco Medical, and Esco Aster—remaining true to our tagline “World-class. Worldwide.”

Last 2020, we shifted from Esco Group of Companies to **Esco Lifesciences Group**, carrying a new tagline “**Improving lives through science.**” The transformation of the company name and brand signifies Esco’s vigor in keeping up, responsive, and adaptive with the fastchanging world while keeping focused on its mission to deliver enabling technologies and provide service all over the world—and improve lives through science.

## At Esco Medical, life has begun

Esco Medical is one of the divisions of the Esco Lifesciences Group, apart from Esco Scientific, Esco Healthcare and Esco Aster. Esco Medical provides innovative technological solutions for fertility clinics and laboratories.

The slightest deviation, usually considered as insignificant, often result in non-optimal conditions for embryo growth and lowered pregnancy success. In Esco, we understand that even the smallest details affect the *In vitro* Fertilization process. Thus, Esco Medical’s primary focus is to provide fertility technologies and solutions to help the world’s leading IVF centers to improve, standardize and automate their processes in order to achieve better clinical outcomes and patient satisfaction.

Esco Medical is the leading manufacturer and innovator of high-quality equipment such as Time-Lapse Incubator, Multiroom Embryo Incubators, IVF Workstation, CO<sub>2</sub> Incubator, Anti-Vibration Table, and Gas Analyser. Most of our medical products are designed in Denmark and made in the EU.

I promise...

I’ll raise you like flying a kite.

Will hold you with both hands and slowly let go.

The day you fly, I’ll watch you chase the sky.



# MIRI® Time-Lapse Incubator



MIRI® TL is a Time-Lapse incubator that monitors embryo development. The MIRI® TL, optimized for clinical and IVF procedures, is designed to support existing work and quality assurance routines. This value-added treatment provides the most unique incubation environment with the market's most secure and safest procedures. It lessens disturbance and minimizes stressful factors that may be introduced when taking the dishes out of the incubator. This incubation system also ensures predictability in the daily handling and currently offers the market's lowest cost of ownership.



## Unique Incubation Environment

- Has independent multi-chamber system
- Gas recirculation through HEPA/VOC filters and UV light.
- Built-in gas mixer. Premixed gas is not required.

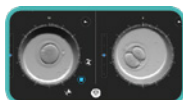
**MIRI® TL6:** 6 Individual chambers  
**MIRI® TL12:** 12 Individual chambers

**Gas recovery:** less than three (3) minutes  
**Temperature recovery:** less than one (1) minute



## Unprecedented Faster Recovery

- Excellent recovery time for both temperature and gas parameters.
- Opening one chamber will have no impact on the rest of the system.
- Heated upper lid and bottom plate for excellent temperature regulation and uniformity.



### 2 Temperature Mode Options:

- **Single:** Uniform set points for all 6 (six) chambers.
- **Multi:** Individual set points for each chamber.

## Sophisticated Annotation Tools

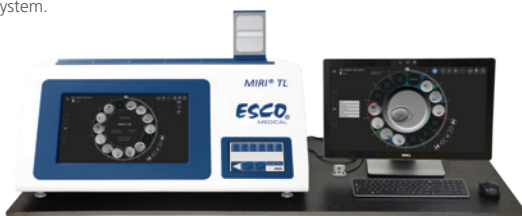
- Freedom to personalize instrument and parameter settings.
- Do a side-by-side comparison and compare actual timings to ideal.



## Quality checking an easy breeze!

- Has 12 temperature sensors to ensure constant temperature stability.
- Independent PT1000 sensor and gas sample port for external validation.
- Built-in pH measuring system.
- Data logging system.

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



## Embryo Analysis and Evaluation System

The MIRI® TL Viewer Software is a simple yet sophisticated information-providing tool that can help embryologists process the data generated. You can review, annotate and compare the morphokinetic parameters of each embryo to select or deselect embryos for transfer and export data for retrospective analysis.



Navigation through the stacked timeline is easy and intuitive as the revolver shows the videos of the 14 wells of one single CultureCoin®. You can play the individual videos, annotate and compare each single embryo.

*Shown on the image is a magnified view of embryo #7*



### Assisted Annotation

The MIRI® "Assist" tool automatically detects early embryo cleavage events.

## General Specifications

Specifications	TL6	TL12
Overall Dimensions (W x D x H)	805 x 590 x 375 mm (31.7 x 23.2 x 14.8" )	950 x 685 x 375 mm (37.4 x 27.0 x 14.8")
Compartment Dimensions	120 x 90 x 26 mm (4.7 x 3.5 x 1")	
Temperature Control Range	28.7 - 41.0 °C	
Gas Consumption (CO <sub>2</sub> ) *	< 2 L/h	
Gas Consumption (N <sub>2</sub> ) **	< 5 L/h	
CO <sub>2</sub> Control Range	2.9% - 9.9%	
O <sub>2</sub> Control Range	2.0% - 20.0%	
Input Gas Pressure	0.6 bar (8.7 psi)	
Built-in Microscope	Zeiss 20x, objective has numerical aperture of 0.35, specialized for 635 nm illumination	
Embryo Illumination	0.064s per image, using 1W single red LED (635nm)	
Camera Resolution	1280 x 1024. Monochrome, 8-bit, IDS system	
Optics Tube Ratio	2.22 px/μm	
Imaging Focal Planes	5 min. image interval in 3 to 7 focal planes	

\* Under normal condition (CO<sub>2</sub> set point reached at 6.0%, all lids closed).

\*\* Under normal condition (O<sub>2</sub> set point reached at 5.0%, all lids closed).

## Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
<b>Unit</b>		
2070091	MRI-TL-MN-6C-8	MIRI® Time-Lapse Incubator, Mini, 6 Chambers, 230 V, 50/60 Hz
2070092	MRI-TL-MN-6C-9	MIRI® Time-Lapse Incubator, Mini, 6 Chambers, 115 V, 50/60 Hz
2070098	MRI-TL-MN-6C-SS-8	MIRI® Time-Lapse Incubator, 6 chambers with SAFE Sens, 230 V, 50/60 Hz
2070099	MRI-TL-MN-6C-SS-9	MIRI® Time-Lapse Incubator, 6 chambers with SAFE Sens, 115 V, 50/60 Hz
2070100	MRI-TL-12C-8	MIRI® Time-Lapse Incubator, 12 Chambers, 230 V, 50/60 Hz
2070101	MRI-TL-12C-9	MIRI® Time-Lapse Incubator, 12 Chambers, 115 V, 50/60 Hz
2070114	MRI-TL-SS-12C8	MIRI® Time-Lapse Incubator, 12 Chambers, 230V 50/60Hz, with SAFE Sens
2070115	MRI-TL-12C-SS-9	MIRI® Time-Lapse Incubator, 12 Chambers, 110V 50/60Hz, with SAFE Sens
<b>MIRI® TL Viewer Software</b>		
2070042	MRI-VIEWER	MIRI® Time-Lapse Viewer
1320095	MRI-SERVER	MIRI® Time-Lapse Server
<b>Accessories</b>		
1320011	MRA-1007	HEPA + VOC filter (to be replaced every 3 months)
1320088	MRI-CC	CultureCoin® for Time-Lapse of 14 embryos (25 pcs. per pack)
1320045	MRI-GA	MIRI® GA CO <sub>2</sub> /O <sub>2</sub> & Temperature Validation Unit, 115V/ 230V



## CultureCoin® for MIRI® TL

- Holds up to 14 embryos with individual numbered wells (1-14).
- For single and separated culture where each embryo are cultured in its own environment.
- Ergonomic design for easy handling and location of embryos.
- Separate well for pH measurements.
- Oxygen plasma treated for high wet-ability (hydroscopic).
- Packed in 1 dish pouches and delivered in boxes of 25 pcs.

## General Specifications

Overall dimensions (Diameter x Height)	Ø 71 x 10 mm
Weight empty	0.5 gram
Material	Polystyrene
Temperature range	25 – 40 °C
CO <sub>2</sub> range	1.9 – 10%
O <sub>2</sub> range	4.9 – 20.0%
Sterilization method	Gamma beam
Lifetime	1 year
Toxicity tested	Embryo toxicity tested with thawed 1 cell mouse embryos. Expanded Blastocyst rate after 96 hours > 80 % (n=150)/0.6 bar (8.70 PSI)

## Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
1320088	MRI-CC	CultureCoin® for Time-Lapse of 14 embryos

# Multiroom Incubator

## MIRI® Incubation System

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

- **Heated Lid**  
Prevents condensation. Enhances temperature regulation.
- **Direct Heat Transfer**  
Less than one minute temperature recovery.
- **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® Multiroom Incubator

The MIRI® is a revolution, in form and functionality, of CO<sub>2</sub> incubators for *In Vitro* Fertilization (IVF). With 6 chambers, the MIRI® is a Multiroom Incubator that allows users to access their cultures in one chamber without affecting the neighbouring chambers. Thus, the harmful effects of fluctuations in temperature and gas caused by frequent incubator access are avoided. Built specifically to equip IVF laboratories and clinics to provide the best standard of care, it boasts a unique set of features that cannot be found elsewhere.

### Key Features

#### Fast Recovery

- <1 minute temperature recovery.
- <3 minutes gas recovery.

#### Built-in pH meter

For accurate validation.

#### Solid Validation System

- Six (6) PT1000 sensors and Gas ports for validation outputs
- SAFE Sens Integration for pH monitoring (optional).
- External Data Logging.
- Alarm relay contact
- Total capacity of up to 48 standard culture dishes.
- Separate CO<sub>2</sub> and O<sub>2</sub> regulation, expensive mixed gases not required!
- Air is continuously cleaned by HEPA/ VOC filters, and UV light.



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

### Stacking Frames



MIRI® Stacking Frame with drawer



MRA-1014 - Stacking frame for 2 units

# MIRI<sup>®</sup> II-12 Multiroom Incubator



The MIRI<sup>®</sup> II-12 is an incubator that provides unique features for every IVF laboratories and clinics. The chambers are specially designed to accommodate one patient ensuring personal space for each embryo. Having an excellent footprint, MIRI<sup>®</sup> II-12 is made to perfectly fit every IVF lab.

## Independent Chambers

Each chamber is specially designed for one patient. Hence, there is no disturbance to other chambers even when a lid is opened/closed.

## Excellent footprint

With its compact size, it can perfectly fit in every IVF Lab.

## Low gas consumption

The built-in gas mixer and efficient recirculation system allows you to save more.



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

## Just a fitting solution...

MIRI<sup>®</sup> II-12 comes with specific inserts matching the type of dishes used in the laboratories.

## Heating optimization plates

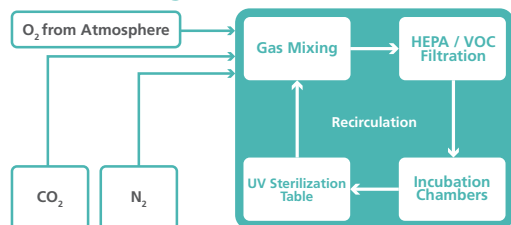
Each chamber contains a heating optimization plate to facilitate heat transfer directly to the culture dishes.

- Has inserts to fit various dish sizes



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

## Airflow Diagram



Provides total control of the gas phase environment. The built-in gas mixer and the high-performance CO<sub>2</sub> and O<sub>2</sub> sensors allow accurate control of gas composition in the chambers.

# General Specifications



## MIRI® Multiroom Incubator

Overall Dimensions (W x D x H)	700 x 585 x 165 mm ( 27.6 x 23.0 x 6.5")
Compartment Dimensions	200 x 176 x 25 mm (7.9 x 6.9 x 1")
Power Supply	115 / 230V, 50/60 Hz
Power Consumption	300 W
Temperature Control Range	24.9 - 40°C
*CO <sub>2</sub> Gas Consumption	<2 L/h
**N <sub>2</sub> Gas Consumption	<12 L/h
CO <sub>2</sub> Control Range	2 - 9.9%
O <sub>2</sub> Control Range	5 - 20%
Input Gas Pressure (CO <sub>2</sub> )	0.6 bar (8.7 psi)
Input Gas Pressure (N <sub>2</sub> )	0.6 bar (8.7 psi)
Net Weight	35 kg (77.2 lbs)
Shipping Weight	40 kg (88.2 lbs)
Shipping Dimension	840 x 735 x 300 mm (33.1" X 29" x 11.9")

\* Under normal condition (CO<sub>2</sub> set point reached at 5.0%, all lids closed)

\*\* Under normal condition (O<sub>2</sub> set point reached at 5.0%, all lids closed)

## MIRI® II-12 Multiroom Incubator

Overall Dimensions (W x D x H)	740 x 575 x 215 mm (29.1 x 22.6 x 8.5")
Compartment Dimensions	120 x 90 x 26 mm (4.7 x 3.5 x 1")
Power Supply	115V 50/60 Hz or 230V 50/60 Hz
Power Consumption	500 W
Temperature Control Range	25 - 40° C
*CO <sub>2</sub> Gas Consumption	<2 L/h
**N <sub>2</sub> Gas Consumption	<12 L/h
CO <sub>2</sub> Control Range	3 - 10%
O <sub>2</sub> Control Range	5 - 10%
CO <sub>2</sub> Input Gas Pressure	0.6 bar (8.70 psi)
N <sub>2</sub> Input Gas Pressure	0.6 bar (8.70 psi)
Net Weight	47 kg
Shipping weight	60 kg
Shipping dimension	880 x 700 x 355 mm (34.6 x 27.6 x 14")

\* Under normal condition (CO<sub>2</sub> set point reached at 5.0%, all lids closed)

\*\* Under normal condition (O<sub>2</sub> set point reached at 5.0%, all lids closed)

## Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
<b>MIRI® Multiroom Incubator</b>		
2070047	MRI-6A10-8	MIRI® Incubator, 230V, 50/60Hz
2070048	MRI-6A10-9	MIRI® Incubator, 115V, 50/60Hz
2070086	MRI-6A10-SS-8	MIRI® Incubator, with SAFE Sens for pH measurement, 230V, 50/60Hz
2070087	MRI-6A10-SS-9	MIRI® Incubator, with SAFE Sens for pH measurement, 115V, 50/60Hz
1320045	MRI-GA	MIRI® GA CO <sub>2</sub> / O <sub>2</sub> & Temperature Validation Unit, 115V / 230V
<b>MIRI® II-12 Multiroom Incubator</b>		
2070164	MRIZ-12C-8	MIRI® II-12 Incubator with 12 chambers, 230V, 50/60Hz
2070165	MRIZ-12C-9	MIRI® II-12 Incubator with 12 chambers, 115V, 50/60Hz
2070166	MRIZ-12C-SS-8	MIRI® II-12 Incubator with 12 chambers, with SAFE Sens, 230V, 50/60Hz
2070167	MRIZ-12C-SS-9	MIRI® II-12 Incubator with 12 chambers, with SAFE Sens, 115V, 50/60Hz



# Mini MIRI® Incubator



Built on the strong and reliable MIRI® Multiroom, the Mini MIRI® is an incubator that provides a stable culture environment. It has two chambers that prevent cross-contamination while HEPA/VOC filtration cleans the incoming airstream. The compact design and direct heat regulation further translate to faster temperature and gas recovery.

### Comes in two models:



#### Mini MIRI® Humidity

- Built-in humidity sensor for accurate and continuous readings.
- The water bottle is located on the side of the unit for refilling and easy control of water level.

#### Mini MIRI® Dry

- Has a built-in gas mixer. Premixed gas is not required
- Comes with a UV module and HEPA/VOC filter.

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

## 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")	
Compartment Dimensions	200 x 176 x 25 mm (7.9 x 6.9 x 1")	
Power Supply	115 VAC or 230 VAC, 50/60 Hz	
Temperature Control Range	24.9 - 40° C	
CO <sub>2</sub> Gas Consumption	<2 L/hr	< 4 L/h
N <sub>2</sub> Gas Consumption	<8 L/h	<12 L/h
Gas Pressure	0.4 to 0.6 bar	

## Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
2070155	MRI-MINI-H-8	Mini MIRI® Humidity, 230V, 50/60Hz
2070156	MRI-MINI-H-9	Mini MIRI® Humidity, 115V, 50/60Hz
2070157	MRI-MINI-H-SS-8	Mini MIRI® Humidity with SAFE Sens for pH monitoring, 230V, 50/60 Hz
2070158	MRI-MINI-H-SS-9	Mini MIRI® Humidity with SAFE Sens for pH monitoring, 115V, 50/60 Hz
2070143	MRI-MINI-D-8	Mini MIRI® Dry, without Humidification, 230V, 50/60Hz
2070144	MRI-MINI-D-9	Mini MIRI® Dry, without Humidification, 115V, 50/60Hz
2070145	MRI-MINI-SS-D-8	Mini MIRI® Dry with SAFE Sens for pH monitoring, 230V, 50/60 Hz
2070146	MRI-MINI-SS-D-9	Mini MIRI® Dry with SAFE Sens for pH monitoring, 115V, 50/60 Hz

# Inserts for MIRI<sup>®</sup>, MIRI<sup>®</sup> II-12, and Mini MIRI<sup>®</sup>



## Extensive list of inserts for MIRI<sup>®</sup>, MIRI<sup>®</sup> II-12, and Mini MIRI<sup>®</sup>

When ordering a MIRI<sup>®</sup>, MIRI<sup>®</sup> II-12 or a Mini MIRI<sup>®</sup>, you just have to pick the right insert/s that fit the dishes used in your laboratory. You have the freedom and flexibility to choose -- no limitations. The MIRI<sup>®</sup>, MIRI<sup>®</sup> II-12 and Mini MIRI<sup>®</sup> can easily fit-in to your existing work routine.

All inserts are optimized for the direct transfer of heat to the dishes and are totally removable for easy cleaning. This is to ensure optimal conditions for your embryos.



Nunc<sup>™</sup>



Falcon<sup>®</sup>



Vitrolife



LifeGlobal<sup>®</sup>  
GPS Dishes



Nipro<sup>™</sup>



SparMED Oosafe<sup>®</sup>

## Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
<b>For MIRI<sup>®</sup> and Mini MIRI<sup>®</sup></b>		
1320003	MRA-FD	Insert for Falcon <sup>®</sup> Dishes
1320004	MRA-ND	Insert for Nunc <sup>™</sup> Dishes
1320070	MRA-VD	Insert for Vitrolife Dishes
1320099	MRA-NID	Insert for Nipro <sup>™</sup> Dishes
1320100	MRA-LD	Insert for LifeGlobal <sup>®</sup> GPS Dishes
1320101	MRA-PD	Insert Without Footprint for Plain Dishes
1320118	MRA-OD	Insert for SparMED Oosafe <sup>®</sup>
<b>For MIRI<sup>®</sup> II-12</b>		
1320429	MRA2-FD	Insert for Falcon <sup>®</sup> Dishes
1320430	MRA2-ND	Insert for Nunc <sup>™</sup> Dishes
1320431	MRA2-VD	Insert for Vitrolife Dishes
1320433	MRA2-LD	Insert for LifeGlobal <sup>®</sup> GPS Dishes
1320436	MRA2-OD	Insert for SparMED Oosafe <sup>®</sup>
1320434	MRA2-PD	Insert for Plain Dish

# CelCulture® CO<sub>2</sub> Incubators



The CO<sub>2</sub> Incubator has a vital role in providing an optimal environment in embryo development during IVF and other ART procedures. Sleek, reliable and intuitive, the Esco CelCulture® CO<sub>2</sub> incubator is packed with outstanding features such as rapid parameter recovery, ISO Class 5 Cleanliness, ISOCIDE™ antimicrobial coating, optional Inner Door Kit that reduces contamination risk, and other accessories for specialized applications.



CelCulture® CO<sub>2</sub> Incubators  
available in 3 sizes, 50 L, 170 L, and 240 L.

## CelCulture® CO<sub>2</sub> Incubators

CelCulture® is equipped with 90°C Moist Heat Decontamination System evaluated by HPA-UK. It utilizes ULPA filter to keep the chamber at ISO Class 5 cleanliness which ensures that all contaminants are filtered and clean air is recirculated.

### Key Features

- Wider temperature range, from (ambient+3) temperature to 60°C above ambient.
- Complete contamination control methods to protect your precious samples.
- All gas inputs are filtered via 0.2micron in-line filter and ULPA filtration system.
- 90°C moist heat decontamination cycle, validated by HPA-UK.

## ISOCIDE™



### Voyager Software Kit

PC-based software for remote monitoring, data logging and programming.



### Floor Stand with Adjustable Feet

Nominal range of 180 mm to 250 mm (7.1" to 9.8")



### Floor Stand with Casters

Support stand raises the incubator to a height of 700 mm (27.6") above the floor.



### Roller Base

With casters for mobility of your incubators.

## Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
<b>IR Sensor Model with Stainless Steel Chamber</b>		
2170257	CCL-050B-8-IVF	CelCulture® Incubator, 50L, IR sensor, CO <sub>2</sub> control, Moist Heat Decon, with Sealed Inner Door Kit for 50L (2 Glass Doors With Latches), Factory Installed, 230VAC, 50/60 Hz
2170272	CCL-170B-8-IVF	CelCulture® Incubator 170L IR Sensor, CO <sub>2</sub> Control ULPA, Moist Heat Decon, with Sealed Inner Door Kit for 170L (4 Glass Doors With Latches), Factory Installed, 230VAC 50/60Hz
2170258	CCL-050B-9-IVF	CelCulture® Incubator, 50L, IR sensor, CO <sub>2</sub> control, Moist Heat Decon, with Sealed Inner Door Kit for 50L (2 Glass Doors With Latches), Factory Installed, 115VAC, 50/60 Hz
2170273	CCL-170B-9-IVF	CelCulture® Incubator 170L IR Sensor, CO <sub>2</sub> Control ULPA, Moist Heat Decon, with Sealed Inner Door Kit for 170L (4 Glass Doors With Latches), Factory Installed, 115VAC 50/60Hz
<b>Suppressed O<sub>2</sub> Model with Stainless Steel Chamber</b>		
2170260	CCL-050T-8-IVF	CelCulture® Incubator, 50L, IR sensor, CO <sub>2</sub> & O <sub>2</sub> control, Moist Heat Decon, with Sealed Inner Door Kit for 50L (2 Glass Doors With Latches), Factory Installed, 230VAC, 50/60 Hz
2170275	CCL-170T-8-IVF	CelCulture® Incubator 170L IR Sensor, CO <sub>2</sub> & O <sub>2</sub> Control ULPA, Moist Heat Decon, with Sealed Inner Door Kit for 170L (4 Glass Doors With Latches), Factory Installed, 230VAC 50/60Hz
2170261	CCL-050T-9-IVF	CelCulture® Incubator, 50L, IR sensor, CO <sub>2</sub> & O <sub>2</sub> control, Moist Heat Decon, with Sealed Inner Door Kit for 50L (2 Glass Doors With Latches), Factory Installed, 115VAC, 50/60 Hz
2170276	CCL-170T-9-IVF	CelCulture® Incubator 170L IR Sensor, CO <sub>2</sub> & O <sub>2</sub> Control ULPA, Moist Heat Decon, with Sealed Inner Door Kit for 170L (4 Glass Doors With Latches), Factory Installed, 115VAC 50/60Hz

# Esco Multi-Zone ART Workstation



The Esco Multi-Zone ART Workstation is the most advanced workstation in its class. It is designed for use in applications that require a high level of control over environmental conditions. Applications can range from animal embryo culture in research to human embryo manipulation done in fertility laboratories.

## Key Features



### Multi-Zone Heating System

1 set point, 10 independent zones with their own heating elements and sensors allow excellent uniformity.

- Accuracy:  $\pm 0.2^{\circ}\text{C}$
- Uniformity:  $\pm 0.2^{\circ}\text{C}$

### Low Noise, Low Vibration

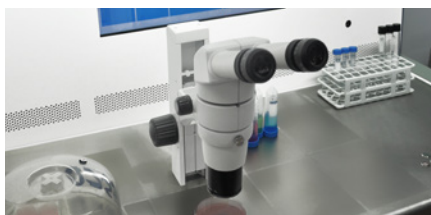
Esco has a state-of-the-art design and features resulting in very low noise and vibration level that makes the workstation suitable for sensitive microscopic work.

### Superior Air Cleanliness

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

### 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.



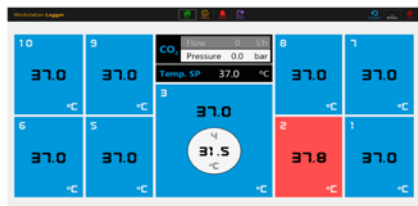
### Microscope Integration Provision

Having an integrated stereomicroscope in the work chamber makes it possible to keep the culture dishes at the right temperature at all times while observation and manipulation are carried out.



### Humidification System

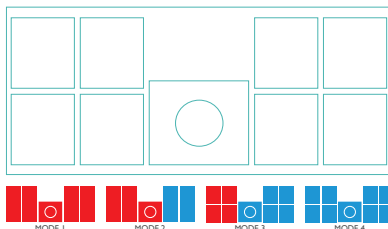
Gas outlet is located on the table surface. The plastic cover encloses the humidified gas effectively and creates a small incubator environment.



### Surveillance System\*

Provides the user with real-time information of zone performance and other work area parameters such as gas pressure and flow rate.

*\*When any of the heating zones are OFF, the monitor shall not display real-time temperature as there are no controlled heating to give uniformity across the OFF zone.*



### Four Temperature Modes

#### Temperature Modes

- Mode 1: All zones are heated
- Mode 2: Right zones turned off
- Mode 3: Right and middle zones turned off
- Mode 4: All zones turned off

# Esco Multi-Zone Workstation with MIRI® Chambers

The workstation is now even better with its integrated MIRI® chambers to further secure your embryos while inside the workstation. The MIRI® incubator is popular for its top-notch features such as stable culture environment and faster parameter recovery.

## Multi-Zone Heating System

The independent zones have its own heating elements and sensors.

## MIRI® Chambers

Your specimens are more secured than ever with the integrated MIRI® chambers, known for its stable and precise temperature output.



## Support Stand Options

More options to choose from to meet your requirements.

## Fit in the same MIRI® Inserts



Nunc™



Falcon®



Vitrolife



LifeGlobal®  
GPS Dishes



Nipro™



SparMED Oosafe®

## Accessories

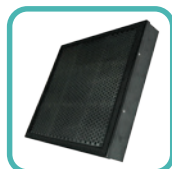


Support Stand:

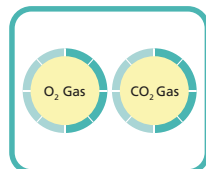
- With leveling feet
- With Caster Wheels
- Motorized stand with Caster Wheels



UV Kit



Carbon Filter



Gas Mixer for MAW

# Stereomicroscope



A Stereomicroscope is a type of optical microscope that allows the user to see a three-dimensional view of a specimen. This Esco MS-I Stereomicroscope is very useful in assessing oocyte and embryo morphology and viability. It has a built-in camera mount where you can place your camera set for a better viewing and documentation of images. Moreover, additional objective lenses (0,3x, 0,4x, 0,75x) can be screwed on the microscope head for additional magnification.



## Key Features

### PK-Mount and Camera Set

Allows mounting a camera set that will help the user to have a better look on their slide.

### Adjustable Interpupillary Distance

Allows adjustment of the distance between two eyepieces depending on their preference.

### Black and White Work Board

This enhances the user's viewing of specimen/samples.



### Up Light Source

This is one of the adaptations in an inverted designed microscope that

is useful in an IVF laboratory as it is designed for inspection of gametes and embryos.

## The Esco Steremicroscope and Esco IVF Workstations

The Esco Multi-Zone ART Workstations (MAW) are IVF workstations with controlled temperature and humidity working environment. These workstations are intended for working with gametes and / or embryos at / or near body temperature in a multi-zone heated set-up during in vitro fertilization (IVF) / assisted reproductive technology (ART) treatments.

The Esco Multi-Zone ART Workstations are even better with its integrated MIRI® chambers to further secure the embryos while inside the workstation. The MIRI® incubator is popular for its top-notch features such as stable culture environment and faster parameter recovery. Also, these workstations have a provision for one's microscope of choice like the Esco Stereomicroscope.







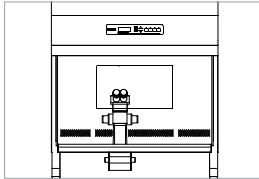
# Esco Multi-Zone ART Workstations



Available in a variety of sizes and configurations to meet the needs of the laboratory

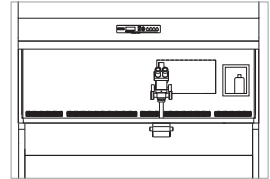
## MAW-3D8

Width: 3 Feet  
Microscope: Single  
Basic Configuration  
1 user  
For small laboratories



## MAW-6D\_ MONO

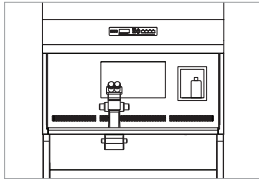
Width: 6ft  
Microscope: Single  
1 user  
More space for other work.



(Front View)

## MAW-4D\_

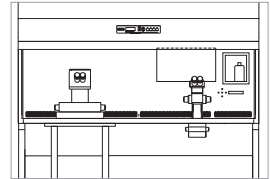
Width: 4ft  
Microscope: Single  
Basic Configuration  
1 user  
For small Laboratories



(Front View)

## MAW-6D\_-MP

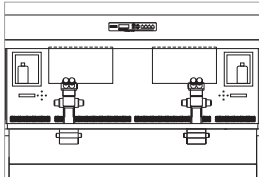
Width: 6ft  
Microscope: Single  
Stereomicroscope,  
1 Inverted microscope set-up



(Front View)

## MAW-6D\_-DUAL

Width: 6ft  
Microscope: Dual  
2 users  
For efficient use of space



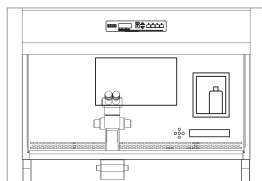
(Front View)



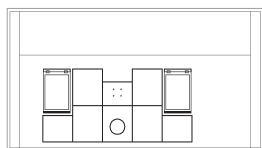


### MAW-4D\_-MC

Width: 4ft  
Microscope: Single  
1 user  
For small Laboratories



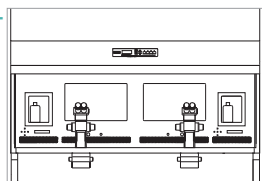
(Front View)



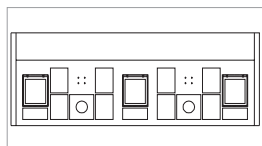
(Worktop View)

### MAW-6D\_-DUAL-MC

Width: 6ft  
MIRI® Chambers: 3  
Microscope: Dual  
2 users



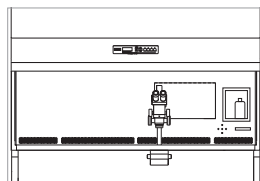
(Front View)



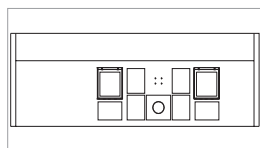
(Worktop View)

### MAW-6D\_-MONO-MC

Width: 6ft  
Microscope: Single  
MIRI® Chambers: 2



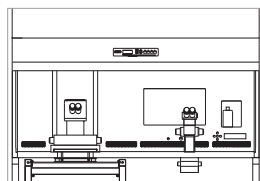
(Front View)



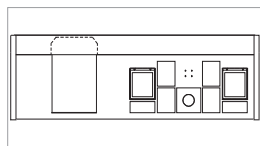
(Worktop View)

### MAW-6D\_-MP-MC

Width: 6ft  
Microscope: Single  
Stereomicroscope,  
1 Inverted  
microscope set-up  
MIRI Chambers: 2



(Front View)



(Worktop View)



# General Specifications



## Esco Multi-Zone ART Workstations

Model	MAW-3D8	MAW-4D_	MAW-6D_	MAW-6D_-DUAL	MAW-6D_-MP
Nominal Size	0.9 meter (3')	1.2 meter (4')	1.8 meter (6')	1.8 meter (6')	1.8 meter (6')
Work area dimension* (Width x Depth x Height)	955 x 500 x 710 mm (37.6" x 19.7" x 28.0")	1260 x 500 x 710mm (49.6" x 19.7" x 28")	1870 x 500 x 710mm (73.6" x 19.7" x 28")	1870 x 500 x 710mm (73.6" x 19.7" x 28")	1870 x 500 x 710mm (73.6" x 19.7" x 28")
Laminar air velocity	Average of 0.21m/s or 41 fpm (± 20%)				
Filter efficiency	>99.999% for particle size between 0.1 to 0.3 microns per IEST-RP-CC001.3 / H14 per EN 1822				
Pre-filter	Disposable and non-washable polyester fibers with 85% arrestance / EU3 rated				
Noise level (per NSF 49)**	<48 dBA	47 dBA	52 dBA	52 dBA	52 dBA
Set of (9+1) heating zone	1 set	1 set	1 set	2 sets	1 set
Surveillance system	1 set	1 set	1 set	2 sets	1 set
Humidification system***	1 set	1 set	1 set	2 sets	1 set
PT 1000 ports	5 ports	5 ports	5 ports	10 ports	5 ports
Microscope	Position for 1 microscope	Position for 1 microscope	Position for 1 microscope	Position for 2 microscopes	Position for 1 microscope and 1 inverted microscope
Transmitted light source	1 set	1 set	1 set	2 sets	1 set
Shipping weight	195 kg	140 kg (308.6 lbs)	182 kg (401.2 lbs)	182 kg (401.2 lbs)	182 kg (401.2 lbs)

\* The actual MAW-6D\_-MP's work area dimension will be customized to fit the inverted microscope.

\*\* Noise reading in open field condition / anechoic chamber. Noise reading in normal room varies by room size, layout, and background noise, but may reach roughly 3-4 dBA above these values.

\*\*\*1 set of humidification system includes one (1) water bottle with tubing, one (1) sample carry tray and one (1) plastic cover.

## Esco Multi-Zone ART Workstation with MIRI® Chambers

Model		MAW-4D_-MC	MAW-6D_-MONO-MC	MAW6D_-DUAL-MC	MAW-6D_-MP-MC
Nominal Size		1.2 meter (4")	1.8 meter (6")	1.8 meter (6")	1.8 meter (6")
Internal Work Area, Dimensions (W x D x H)		1260 x 500 x 710 mm (49.6 x 19.7 x 28.0")	1870 x 500 x 710 mm (73.6 x 19.7 x 28.0")	1870 x 500 x 710 mm (83.6 x 19.7 x 28.0")	1870 x 490 x 780 mm (73.6 x 19.3 x 30.7")
External dimensions without support stand (W x D x H)		1340 x 640 x 1300 mm (52.8 x 25.2 x 51.2")	1950 x 640 x 1300 mm (76.8 x 25.2 x 51.2")	1950 640 x 1300 mm (76.8 x 25.2 x 51.2")	1950 x 647 x 1360 mm (76.8 x 25.4 x 53.5")
External Dimensions with "B" type support stand (W x D x H)		1340 x 640 x 2160 mm (52.8 x 25.2 x 85.0")	1340 x 640 x 2160 mm (52.8 x 25.2 x 85.0")	1950 x 640 x 2160 mm (76.8 x 25.2 x 85.0")	1950 x 647 x 2220 mm (76.8 x 25.4 x 87.4")
Cabinet Construction	Main Body	1.2 mm (0.05") 18 gauge electro-galvanized steel with white oven-baked			
	Work Zone	1.2 mm (0.05") 18 gauge stainless steel, grade 304			
	Side Walls	Tempered Glass (Optional: Polycarbonate sash for MAW with built-in UV light)			
	Sash				
Laminar air velocity		Average of 0.21m/s or 41 fpm (± 20%)			
ULPA Filter efficiency		>99.999% for particle size between 0.1 to 0.3 microns per IEST-RP-CC001.3 / H14 per EN 1822			
Pre-Filter		Disposable, non-washable polyester fibre, 85% arrestance, EU3 rated			
Set of (7+1) heating zones		1	1	2	1
Number of MIRI® Chambers		2	2	3	2
Included accessories		1 x water bottle for HS-1, including tubing 1 x sample carry tray	1 x water bottle for HS-1, including tubing 1 x sample carry tray	2 x water bottle for HS-1, including tubing 2 x sample carry tray	1 x water bottle for HS-1, including tubing 1 x sample carry tray
Microscope		Required, Not included (see microscope ordering information)			
		Position for 1 microscope	Position for 1 microscope	Position for 2 microscopes	Position for 1 microscope and 1 inverted microscope
Support stand		Required, Not included (see support stand ordering information)			

## Stereomicroscope

Overall Dimensions (W x D x H)	250 x 250 x 240 mm ( 9.8" x 9.8" x 9.4")
Net Weight	2.5kg
Type of Light Source	Makes use of a light source integrated into a laminar table Note that an external LED ring could be used, mounted on a microscope (voltage is 110 – 220 V)
Camera Compatibility	Microscope can come with or without camera. Most important camera needs to be C-mount- ed. The recommended camera is IDS model UI-3880LE-C-HQ.

What we offer: IDS ( from Germany) Camera USB 3.1 Gen 1, uEye, LE, 1/1.8" Sony IMX178 CMOS Color Sensor, 3088x2076 Pixels, Rolling Shutter, USB Type-C Connector, CS/C-Mount, HQ-IR Filter, Dimension 47 mm x 46 mm.

## Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
<b>Esco ART Workstation Basic Configuration and Multi-Purpose</b>		
2070177	MAW-3D8	Esco Multi-Zone ART Workstation, 3ft 3ft (0.91m), 230V 50/60Hz
2070017	MAW-4D8	Esco Multi-Zone ART Workstation, 4ft (1.2m), 230V 50/60Hz
2070025	MAW-4D9	Esco Multi-Zone ART Workstation, 4ft (1.2m), 110V 50/60Hz
2070018	MAW-6D8-MONO	Esco Multi-Zone ART Workstation, 6ft (1.8m), 220V 50/60Hz
2070026	MAW-6D9-MONO	Esco Multi-Zone ART Workstation, 6ft (1.8m), 110V 50/60Hz
2070050	MAW-6D8-DUAL	Esco Multi-Zone ART Workstation, Double Heated Zone, 6ft (1.8m), 220V 50/60Hz
2070039	MAW-6D9-DUAL	Esco Multi-Zone ART Workstation, Double Heated Zone, 6ft (1.8m), 110V 50/60Hz
2070036	MAW-6D8-MP	Esco Multi-Zone ART Workstation, Multi-Purpose, 6ft (1.8m), 220V 50/60Hz
2070038	MAW-6D9-MP	Esco Multi-Zone ART Workstation, Multi-Purpose, 6ft (1.8m), 110V 50/60Hz
<b>Esco ART Workstation with MIRI® Chambers</b>		
2070068	MAW-4D8-MC	Esco Multi-Zone ART Workstation, MIRI® Chambers, 4ft (1.2m), 230V 50/60Hz
2070070	MAW-4D9-MC	Esco Multi-Zone ART Workstation, MIRI® Chambers, 4ft (1.2m), 110V 50/60Hz
2070069	MAW-6D8-MONO-MC	Esco Multi-Zone ART Workstation, MIRI® Chambers, 6ft (1.8m), 220V 50/60Hz
2070071	MAW-6D9-MONO-MC	Esco Multi-Zone ART Workstation, MIRI® Chambers, 6ft (1.8m), 110V 50/60Hz
2070075	MAW-6D8-DUAL-MC	Esco Multi-Zone ART Workstation, Double Heated Zone, MIRI® Chambers, 6ft (1.8m), 220V 50/60Hz
2070074	MAW-6D9-DUAL-MC	Esco Multi-Zone ART Workstation, Double Heated Zone, MIRI® Chambers, 6ft (1.8m), 110V 50/60Hz
2070072	MAW-6D8-MP-MC	Esco Multi-Zone ART Workstation, Multi-Purpose, MIRI® Chambers, 6ft (1.8m), 220V 50/60Hz
2070073	MAW-6D9-MP-MC	Esco Multi-Zone ART Workstation, Multi-Purpose, MIRI® Chambers, 6ft (1.8m), 110V 50/60Hz
<b>ART Workstation with MIRI® Chambers and Trigas Mixer</b>		
2070187	MAW-4D8-MC-G	Esco Multi-Zone ART Workstation, MIRI® Chambers, Gas Mixer, 4ft (1.2m), 230V 50/60Hz
2070188	MAW-4D9-MC-G	Esco Multi-Zone ART Workstation, MIRI® Chambers, Gas Mixer, 4ft (1.2m), 115V 50/60Hz
2070189	MAW-6D8-MONO-MC-G	Esco Multi-Zone ART Workstation, MIRI® Chambers, Gas Mixer, 6ft (1.8m), 230V 50/60Hz
2070190	MAW-6D9-MONO-MC-G	Esco Multi-Zone ART Workstation, MIRI® Chambers, Gas Mixer, 6ft (1.8m), 115V 50/60Hz
2070191	MAW-6D8-DUAL-MC-G	Esco Multi-Zone ART Workstation, Double Heated Zone, MIRI® Chambers, Gas Mixer, 6ft (1.8m), 230V 50/60Hz
2070192	MAW-6D9-DUAL-MC-G	Esco Multi-Zone ART Workstation, Double Heated Zone, MIRI® Chambers, Gas Mixer, 6ft (1.8m), 115V 50/60Hz
2070193	MAW-6D8-MP-MC-G	Esco Multi-Zone ART Workstation, Multi-Purpose, MIRI® Chambers, Gas Mixer, 6ft (1.8m), 230V 50/60Hz
2070194	MAW-6D9-MP-MC-G	Esco Multi-Zone ART Workstation, Multi-Purpose, MIRI® Chambers, Gas Mixer, 6ft (1.8m), 115V 50/60Hz
<b>Stereomicroscope</b>		
1320375	MS – I	Stereomicroscope

# MIRI® Anti-Vibration Table



The MIRI® AVT (Anti-Vibration Table) features an anti-vibration mechanism for passive dampening of the microscope. This is mainly used for micromanipulation procedures like Intra-Cytoplasmic Sperm Injection (ICSI) procedures. Exclusively designed in Denmark and made in E.U., the stainless steel table and sturdy frame add mass to the anti-vibration table. AVT is constructed to be easy-to-use and almost maintenance-free.

## Key Features

- Anti-vibration mechanism for passive dampening
- Sturdy frame
- Stainless steel table
- Range (HZ) vibration could be eliminated while using this AVT: 5.5-50Hz

## General Specifications

Overall Dimensions	1200 x 800 x 800 mm (47.2 x 31.5 x 31.5")
Net weight	114 kg (251.3 lbs)
Material	Powder-painted mild steel, Stainless steel
Float Dimension (W x D)	540 x 340 mm (21.3 x 13.4")

## Ordering Information

ITEM CODE	MODEL CODE	DESCRIPTION
1320054	AVT-1	Anti-Vibration Table



# 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 (-200°C to +400°C).

## Key Features

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

## Overview of Models

### Versati™ Micro Centrifuge



#### Model: MCV-88

- Maintenance-free brushless motor
- Superior safety
- Audible and visible alarms
- Up to 88 ml capacity



#### Model: MCR-88

- Maintenance-free brushless motor
- Superior safety
- Temperature Range: -20°C to 40°C
- Up to 88 ml capacity

### Versati™ Tabletop Centrifuge



#### Model: TCV-1500

- Maintenance-free brushless motor
- Superior safety (Automatic rotor recognition)
- Audible and visible alarms
- Up to 1500 ml capacity



#### Model: TCR-1500

- Maintenance-free brushless motor
- Superior safety (Automatic rotor recognition)
- Temperature Range: -20°C to 40°C
- Up to 1500 ml capacity

# Options and Accessories



## General Accessories for Versati™ Micro Centrifuge



### Aerosol-tight Fixed-angle Rotor

This TÜV Nord Certified Bioseal Rotor is used for 1.5/2.0 ml tubes. Adapters are used to run 0.5 ml and 2.0 ml / 0.4 ml PCR tubes.



### Fixed-angle Rotor

Aluminum rotor used for 5 ml conical tubes. Adapters are also used in this rotor to run 1-1.8 ml Cryo tubes and 1.5 ml / 2.0 ml PCR tubes.



### Microhematocrit Rotor

Rotor ideal for medical field in the determination of hematocrit value through its circular reader accessory. This rotor can only be used in MCV model.



### Fixed-angle Rotor for PCR Strips

Rotor made of polypropylene used for 4 x 8 (0.2 ml) PCR strips.

*Note: There are a total of 6 rotor options for MCR, 7 rotor options for MCV, and 5 available adapters for both models.*

## General Accessories for Versati™ Tabletop Centrifuge



### Swing-bucket Rotor

Aluminum swing-bucket rotor with circular flat-bottom buckets made of polypropylene can hold up to 4 x 250 ml tubes. It has flexible adapters ideal for medical and biotechnology laboratories.



### Microtiter Plate Rotor

This microtiter plate rotor has a maximum capacity of up to 6 plates. This can also accommodate deep well plate, culture plate, microtest/ terasaki plate, microsonic system, and PCR well plate.



### Fixed-angle Rotor

The maximum capacity of this fixed-angle rotor is 6 x 250 ml. It can also run tubes ranging from 1.5/2.0 ml to 50 ml using suitable adapters.



### Aerosol-tight Fixed-angle Rotor

This TÜV Nord Certified Bioseal Rotor used for 1.5/2.0 ml tubes is also available in tabletop centrifuge models. Adapters are used to run 0.5 ml and 2.0 ml / 0.4 ml PCR tubes.

*Note: There are a total of 12 rotor options for TCV/ TCR and 47 available adapters for both models.*

# Ordering Information



ITEM CODE	MODEL CODE	DESCRIPTION
2220005	TCV-1500-8	Tabletop Centrifuge Ventilated 230 VAC, 50/60 Hz
2220006	TCV-1500-9	Tabletop Centrifuge Ventilated 120 VAC, 50/60 Hz

## Guide to Models

### MCV - 88 - 8

Model	Code	Centrifuge Capacity	Code	Electrical Supply	Code
Micro Centrifuge Ventilated	MCV	Maximum Sample Capacity (ml)	88	230 VAC 50/60 Hz	8
				120 VAC 50/60 Hz	9
Micro Centrifuge Refrigerated	MCR			230 VAC 50/60 Hz	8
				120 VAC 50/60 Hz	9

### MCV / MCR High Speed Micro Centrifuge for up to 15,000 rpm

Designed to accelerate your routine sample preparation processes.

Model Code	Item Code	Description
<b>MCV - 88 - 8</b>	2220001	Micro Centrifuge Ventilated 230 VAC, 50/60 Hz
<b>MCV - 88 - 9</b>	2220002	Micro Centrifuge Ventilated 120 VAC, 50/60 Hz
<b>MCR - 88 - 8</b>	2220003	Micro Centrifuge Refrigerated 230 VAC, 50/60 Hz
<b>MCR - 88 - 9</b>	2220004	Micro Centrifuge Refrigerated 120 VAC, 50/60 Hz

## Guide to Models

### TCV - 1500 - 8

Model	Code	Centrifuge Capacity	Code	Electrical Supply	Code
Tabletop Centrifuge Ventilated	TCV	Maximum Sample Capacity (ml)	1500	230 VAC 50/60 Hz	8
				120 VAC 50/60 Hz	9
Tabletop Centrifuge Refrigerated	TCR			230 VAC 50/60 Hz	8
				120 VAC 50/60 Hz	9

### TCV / TCR High Speed Tabletop Centrifuge for up to 16,000 rpm

Ideal for multi-purpose centrifugation at high-speed.

Model Code	Item Code	Description
<b>TCV-1500-8</b>	2220005	Tabletop Centrifuge Ventilated 230 VAC, 50/60 Hz
<b>TCV-1500-9</b>	2220006	Tabletop Centrifuge Ventilated 120 VAC, 50/60 Hz
<b>TCR-1500-8</b>	2220007	Tabletop Centrifuge Refrigerated 230 VAC, 50/60 Hz
<b>TCR-1500-9</b>	2220008	Tabletop Centrifuge Refrigerated 120 VAC, 50/60 Hz

Contact Esco or your local Sales Representative for ordering information

# Quality Assurance and Validation Units



## MIRI® GA Gas and Temperature Validation Unit

MIRI® GA is a tabletop device intended to make external incubator validation easier and safer. It is capable of monitoring the temperature (PT1000 connector) & gas concentration, flow and pressure. It can validate up to 6 chambers simultaneously 24 hours a day. It also has an adjustable flow rate which gives it the ability to properly sample small volume incubation chambers. Moreover, MIRI® GA comes with a full Data Logger software which is helpful in monitoring each parameter. The MIRI® GA can connect to any brand of incubator and is a perfect accessory to MIRI® TL and MIRI® Multiroom Incubators.

### Key Features

- Constantly validate up to 6 x CO<sub>2</sub> / O<sub>2</sub> incubators
- CO<sub>2</sub> / O<sub>2</sub> incubators controllable flow rate Monitor up to 6 x
- PT1000 sensors
- 6 ports for sequential gas samples
- Gas feedback returns sampled gas to incubator or exhaust

## General Specifications

Input ports	6 x PT1000 ports for temperature monitoring 6 x gas sampling ports
Output ports	1 x gas feedback port, 1 x USB port
Shipping dimensions and weight	440mm x 430mm x 240mm (17.3" x 16.9" x 9.4"), 15kg (33.1lbs)

## Ordering Information\*

ITEM CODE	MODEL CODE	DESCRIPTION
1320045	MRI-GA	MIRI® GA CO <sub>2</sub> / O <sub>2</sub> / Temp validation Unit, 115/230V, 50/60Hz

\*Includes data logger software, 1pc PT1000 cable, 1pc Gas connection tube, 1pc Gas feedback tube

## Accessories

ITEM CODE	MODEL CODE	DESCRIPTION
1320063	MRA-1101	1pc PT1000 cable
1320064	MRA-1102	Set of 6pcs PT1000 cables
1320065	MRA-1103	1pc Gas connection tube
1320066	MRA-1104	Set of 6pcs Gas connection tubes





## Continuous pH Monitoring

### Worry-free pH monitoring of your Esco incubators

SAFE Sens (Sterile, Automated Fluoroscopic Evaluation) offers fast, effective, and non-invasive continuous pH monitoring product for in vitro fertilization (IVF) procedures.

The SAFE Sens technology employs an optical fluorescent measurement technology, used in combination with disposable sensors, which accurately and reliably monitors the pH of small volumes of fluids such as the media used in IVF.

Order SAFE Sens with your new MIRI® and Mini MIRI®\*

### Key Features



#### Continuous pH measurement

- Reading and recording every 30 minutes (default setting - adjustable).
- Single use sensor probe for up to seven (7) days of pH readings.



#### Easy-to-implement

- Easy-to-align (no buffers, no hassles).
- Easy-to-use and maintain.



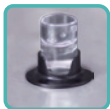
#### Data Logging System

- Data Logging and user alarms.
- Each TrakStation® can be connected to multiple incubators.



#### Compact and Efficient

- No more unnecessary openings of your incubator for spot pH measurement.



Mini MIRI®



MIRI®



MIRI® TL6



MIRI® II-12

\*Factory-installed. No option yet to install on-site for previously ordered MIRI®.

\*\*SAFE Sens is a trademark brand of Blood Cell Storage, Inc. (BCSI)

## Ordering Guide for SAFE Sens

### Step1: Choose the correct electrical rating for each equipment.

ITEM CODE	MODEL CODE	DESCRIPTION
<b>MIRI® TL6</b>		
2070098	MRI-TL-MN-6C-SS-8	MIRI® Time-Lapse Incubator, Mini, 6 chambers with SAFE Sens, 230 V, 50/60 Hz
2070099	MRI-TL-MN-6C-SS-9	MIRI® Time-Lapse Incubator, Mini, 6 chambers with SAFE Sens, 115 V, 50/60 Hz
<b>MIRI® TL12</b>		
2070100	MRI-TL-12C-8	MIRI® Time-Lapse Incubator, 12 Chambers, 230 V, 50/60 Hz
2070101	MRI-TL-12C-9	MIRI® Time-Lapse Incubator, 12 Chambers, 115 V, 50/60 Hz
<b>MIRI®</b>		
2070086	MRI-6A10-SS-8	MIRI® Incubator, with SAFE Sens for pH measurement, 230V, 50/60Hz
2070087	MRI-6A10-SS-9	MIRI® Incubator, with SAFE Sens for pH measurement, 115V, 50/60Hz
<b>Mini MIRI®</b>		
2070078	MRI-MINI-SS-8	Mini MIRI® Incubator, with SAFE Sens for pH measurement, 230V, 50/60Hz
2070079	MRI-MINI-SS-9	Mini MIRI® Incubator, with SAFE Sens for pH measurement, 115V, 50/60Hz
<b>MIRI® II-12</b>		
2070166	MRI2-12C-SS-8	MIRI® II-12 Incubator with 12 chambers, with SAFE Sens, 230V, 50/60Hz
2070167	MRI2-12C-SS-9	MIRI® II-12 Incubator with 12 chambers, with SAFE Sens, 115V, 50/60Hz

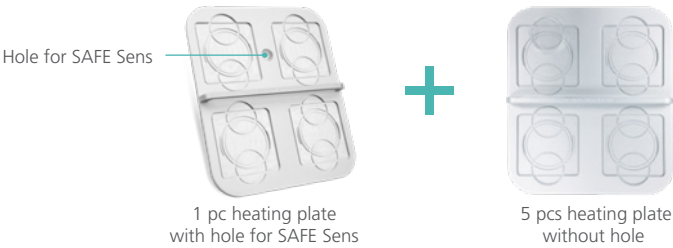
Step 2: Order the SAFE Sens Accessories.\*

ITEM CODE	MODEL CODE	DESCRIPTION
1081277	MRA-SS-SV2	SAFE Sens SV2 Sensor, Pack of 10 pieces (shelf-life 12 months)
1081278	MRA-SS-QC2	
1320191	MRA-SS-TS	SAFE Sens TrakStation, a tablet with SAFE Sens Software, for pH monitoring.

- \*Notes:** (1) One QC2 alignment tool can be used on all incubators. If incubators are located in separate rooms, you may have to order more than one QC2 tool.  
(2) QC2 Alignment tool and SV2 sensors have an expiration date of one (1) year.  
(3) The MIRI® with SAFE Sens automatically comes with free one (1) pack of SV2 sensors, which is to be used for Site Standardization. Please determine how many additional packs you need for routine pH testing . Put into consideration that the sv2 sensor has one year expiration date. *See page 5 for stock-keeping matrix*  
(4) One TrakStation can connect up to eight (8) incubators by using a USB 3.0 Hub. Determine how many PC tablets you need.  
(5) The Esco data logger should be installed separately on another Windows PC/ tablet. Please see page 5 for the minimum requirements.

Step 3: Choose Heat Optimization Plate. Only one chamber has the SAFE Sens installed so order only one (1) plate that has a hole for the SAFE Sens. See guide below.

No Heat Optimization Plate needed for MIRI® TL



*Note: Heat plates should only be ordered for MIRI® and Mini MIRI®.*

Heating Plates with Hole for SAFE Sens

ITEM CODE	MODEL CODE	DESCRIPTION
For MIRI® and Mini MIRI®		
1320220	MRA-ND-SS	Insert for Nunc™ Dishes, with hole for SAFE Sens
1320221	MRA-VD-SS	Insert for Vitrolife Dishes, with hole for SAFE Sens
1320222	MRA-NID-SS	Insert for Nipro™ Dishes, with hole for SAFE Sens
1320223	MRA-LD-SS	Insert for LifeGlobal® GPS Dishes, with hole for SAFE Sens
1320224	MRA-PD-SS	Insert Without Footprint for Plain Dishes, with hole for SAFE Sens
1320225	MRA-OD-SS	Insert for SparMED Oosafe®, with hole for SAFE Sens
1320219	MRA-FD-SS	Insert for Falcon® Dishes, with hole for SAFE Sens
For MIRI® II-12		
1320417	MRA2-FD-SS	Insert for Falcon® Dishes, with hole for SAFE Sens
1320418	MRA2-ND-SS	Insert for Nunc™ Dishes, with hole for SAFE Sens
1320419	MRA2-VD-SS	Insert for Vitrolife Dishes, with hole for SAFE Sens
1320421	MRA2-LD-SS	Insert for LifeGlobal® GPS Dishes, with hole for SAFE Sens
1320437	MRA2-OD-SS	Insert for SparMED Oosafe®, with hole for SAFE Sens
1320422	MRA2-PD-SS	Insert for Plain Dish with hole for SAFE Sens

# Traceability Tool



## The ultimate traceability tool for fertility clinics

MIRI® Evidence is redefining the way traceability in laboratory procedures is managed and stored in fertility clinics, eliminating errors, preventing system mix-ups, saving time, and helping clinics to comply with regulations. This tool provides a single, secure platform that ensures all patients are scheduled on time and documented properly - saving time and improving outcomes across the board.

The MIRI® Evidence workflow proposes tools to improve scheduling and documentation procedures, refining both clinical and administrative processes in a fertility clinic. Tasks or procedures are spontaneously arranged and scheduled as soon as the patient starts her treatment. Any changes to her treatment initiate an update of the scheduled task. The built-in validation engine warrants that all data is registered. If data is missing, a task is automatically created for the person or group of persons responsible for maintaining such information.

## Benefits of Using the MIRI® Evidence



### • Tracking

The scanners used with MIRI® Evidence are 2D imagers with no laser from a market-leading supplier and specially made for healthcare. The scanner can be used to scan wristbands, capture images, and photograph ID cards and passports.



### • Workflow

The MIRI® Evidence workflow offers tools to enhance scheduling and documentation procedures, improving both clinical and administrative workflows in a fertility clinic. Once a patient's workflow has been started, the system automatically allocates the tasks. The combination of events determines the type of treatment.



### • Compliance

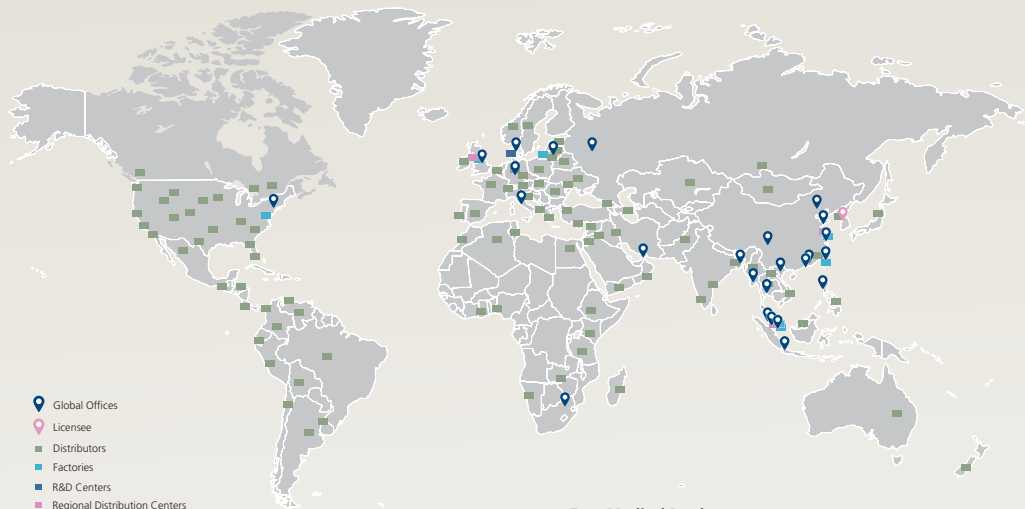
MIRI® Evidence Tracking has been made to comply with the EDQM guidelines and EU regulations. The workflow and tracking system assists the fertility clinic in documenting all procedures in the laboratory and office, thus excluding double-witnessing and saving time.



### • Mix-up prevention

Oocytes, embryos, and semen samples are tracked and validated in and out of the containers eliminating the need for human double-witnessing. The validation guarantees that the correct sample is being processed and prevents patient samples from being mixed up.

# ESCO LIFESCIENCES GROUP



## Esco Medical Products:

MIRI® TL6 Time-Lapse Incubator  
 MIRI® TL12 Time-Lapse Incubator  
 MIRI® Multiroom Incubator  
 MIRI® II-12 Multiroom Incubator  
 Mini MIRI® Dry Incubator  
 Mini MIRI® Humidity Incubator  
 Esco Multi-Zone ART Workstation  
 CelCulture® CO<sub>2</sub> Incubator  
 MIRI® GA (Gas and Temperature Validation Unit)  
 MIRI® AVT  
 Versati™ Tabletop Refrigerated Centrifuge  
 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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Designed in Denmark



Made in the E.U.

