Enabling better fertility outcomes with first-in-class solutions

Fertility

Product Catalogue

Алматы (7273)495-231 Ангарск (3955)60-70-56 Архантельск (8182)63-90-72 Астрахань (8512)93-46-04 Барнаул (852)73-04-60 Белгород (4722)40-23-64 Благовещенск (4162)22-76-07 Брянск (482)59-03-52 Владикависа (8672)28-90-48 Владикависа (8672)28-90-48 Владикависа (8672)28-90-48 Владикависа (8672)28-90-48 Владикара (8672)28-90-48 Владикара (8672)28-90-48 Вларикара (872)26-41-59 Воропек (473)204-55-89 Иваново (4932)77-34-06 Ижееск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калигинград (4012)72-03-81 Калигинград (4012)72-03-81 Киров (8332)68-02-04 Коломна (4966)23-41-49 Кострома (4962)27-07-48 Краснодар (861)203-40-90 Краснолрск (391)204-63-61 Курск (4712)77-13-04 Курск (472)27-03-04 Курск (472)25-20-81 Магничогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8112)59-64-93 Набережные Челны (8552)20-53-41 Нижинй Новогорд (831)429-08-12 Новокуянеци (3843)20-46-81 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Орен (492)44-53-42 Орен (492)42-31-16 Петрозаводск (8142)55-98-37 Псков (8112)59-167 Ростов-на-Дону (863)306-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Самара (846)206-03-16 Самара (846)206-03-16 Самара (842)22-96-24 Саманс-Петербуру (812)309-46-40 Саратов (845)249-38-78 Севастополь (852)26-31-35 Симферополь (852)26-13-56 Симерески (4812)29-41-54 Сочи (852)22-72-31 Ставрополь (8552)26-51-3 Сурту (3462)77-98-35 Сыктывкар (8212)25-95-17 Тамбов (4752)50-40-97 Тамбов (4752)50-40-97 Тольятти (842)6-3-1-07 Томск (322)98-41-53 Тула (8472)33-79-87 Тюмень (3452)66-21-18 Ульяновск (842)24-23-59 Улан-Уда (3012)59-97-51 Уфа (347)229-48-12 Хабаровск (421)292-98-42 Чебоксары (8352)28-53-07 Челябинск (351)202-03-61 Череповец (2020)49-02-64 Чига (3022)38-34-83 Якутск (412)22-90-97 Ярославь (4852)65-52-97

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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, CO₂ 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

- 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.







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

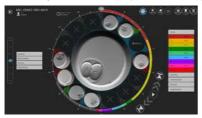
Quality checking an easy breeze!

- 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.



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.



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

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 ₂) * | | < 2 L/h | |
| Gas Consumption (N ₂) ** | < 5 L/h | | |
| CO ₂ Control Range | 2.9% - 9.9% | | |
| O ₂ 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 (CO₂ set point reached at 6.0%, all lids closed).

** Under normal condition (O₂ set point reached at 5.0%, all lids closed).

Ordering Information

| ITEM CODE | MODEL CODE | DESCRIPTION |
|-------------------------|-------------------|---|
| Unit | | |
| 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 |
| MIRI® TL Viewer Softwar | re | |
| 2070042 | MRI-VIEWER | MIRI® Time-Lapse Viewer |
| 1320095 | MRI-SERVER | MIRI® Time-Lapse Server |
| Accessories | | |
| 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./O. & 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 measurement
- 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 ₂ range | 1.9 - 10% |
| O ₂ 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) |

| 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.

- Completely Independent Chambers
 Any disruption (e.g., temperature drop after opening the
 lid) has zero impact on the rest of the system
- Direct Heat Transfer

Less than one minute temperature recovery.

- 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 CO₂ 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 CO₂ and O₂ 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® II-12 Multiroom Incubator



The MIRI® 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® 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[®] II-12 comes with specific inserts matching the type of dishes used in the laboratories.

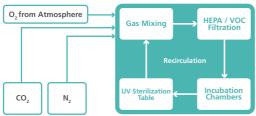
Heating optimization plates

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_2 and O_2 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 ₂ Gas Consumption | <2 L/h |
| **N ₂ Gas Consumption | <12 L/h |
| CO ₂ Control Range | 2 - 9.9% |
| O ₂ Control Range | 5 - 20% |
| Input Gas Pressure (CO ₂) | 0.6 bar (8.7 psi) |
| Input Gas Pressure (N ₂) | 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 $_2$ set point reached at 5.0%, all lids closed) ** Under normal condition (O $_2$ 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 ₂ Gas Consumption | <2 L/h |
| **N ₂ Gas Consumption | <12 L/h |
| CO ₂ Control Range | 3 - 10% |
| O ₂ Control Range | 5 - 10% |
| CO ₂ Input Gas Pressure | 0.6 bar (8.70 psi) |
| N ₂ 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 (CO₂ set point reached at 5.0%, all lids closed) ** Under normal condition (O₂ set point reached at 5.0%, all lids closed)

| ITEM CODE | MODEL CODE | DESCRIPTION | | |
|-------------------------------------|---------------------------------|--|--|--|
| MIRI [®] Multiroom Incub | MIRI® Multiroom Incubator | | | |
| 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 $_{_2}$ / O $_{_2}$ & Temperature Validation Unit, 115V / 230V | | |
| MIRI [®] II-12 Multiroom I | MIRI® II-12 Multiroom Incubator | | | |
| 2070164 | MRI2-12C-8 | MIRI® II-12 Incubator with 12 chambers, 230V, 50/60Hz | | |
| 2070165 | MRI2-12C-9 | MIRI® II-12 Incubator with 12 chambers, 115V, 50/60Hz | | |
| 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 | | |

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 ₂ Gas Consumption | <2 L/hr < 4 L/h | |
| N ₂ Gas Consumption | <8 L/h <12 L/h | |
| Gas Pressure | 0.4 to 0.6 bar | |

| 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[®], MIRI[®] II-12, and Mini MIRI[®]

Extensive list of inserts for MIRI®, MIRI® II-12, and Mini MIRI®

When ordering a MIRI®, MIRI® II-12 or a Mini MIRI®, 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®, MIRI® II-12 and Mini MIRI® 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™

Vitrolife

LifeGlobal[®] GPS Dishes

SparMED Oosafe®

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

CelCulture® CO₂ Incubators



The CO₂ 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[®] CO₂ incubator is packed with outstanding features such as rapid parameter recovery, ISO Class 5 Cleanliness, ISOCIDETM antimicrobial coating, optional Inner Door Kit that reduces contamination risk, and other accessories for specialized applications.



CelCulture® CO₂ 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

ISOCIDE[™]

- 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.



available in 3 sizes, 50 L, 170 L, and 240 L.

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.

| ITEM CODE | MODEL CODE | DESCRIPTION |
|--|----------------|--|
| IR Sensor Model with Stainless Steel Chamber | | |
| 2170257 | CCL-050B-8-IVF | CelCulture [®] Incubator, 50L, IR sensor, CO ₂ 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, 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 ₂ 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, Control ULPA, Moist Heat Decon, with Sealed Inner Door Kit for 170L (4 Glass Doors With Latches), Factory Installed, 115VAC 50/60Hz |
| Suppressed O ₂ Model with Stainless Steel Chamber | | |
| 2170260 | CCL-050T-8-IVF | $\label{eq:cellculture} CelCulture ^{0} Incubator, 50L, IR sensor, CO, & O_{2} control, Moist Heat Decon, with Sealed Inner Door Kit for 50L (2 Glass Doors With Latches), Factory Installed, 230VAC, 50/60 Hz$ |
| 2170275 | CCL-170T-8-IVF | CelCulture® Incubator 170L IR Sensor, CO ₂ & O ₂ 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 | $\label{eq:cellculture} CelCulture {}^{\rm e}$ Incubator, 50L, IR sensor, CO, & O, 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 ₂ & O ₂ 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: ± 0.2 °C
- Uniformity: ± 0.2 °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.



Surveillance System*

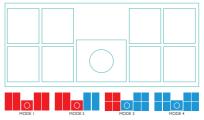
Provides the user with real-time information of zone performance and other work area parameters such as gas pressure and flow rate.

*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.



Humidification System

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



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



Multi-Zone Heating System

MIRI® Chambers



Support Stand Options

Fit in the same MIRI[®] Inserts









GPS Dishes



Nipro™



SparMED Oosafe

Accessories



Support Stand:

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







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

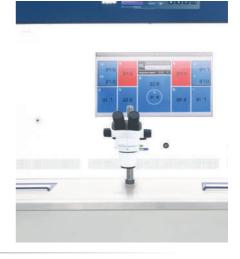
designed microscope that

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 multizone 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.



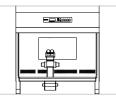


Esco Multi-Zone ART Workstations

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

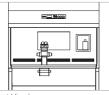
MAW-3D8

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



MAW-4D

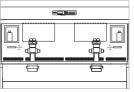
Width: 4ft Microscope: Single Basic Configuration 1 user For small Laboratories



(Front View)

MAW-6D -DUAL

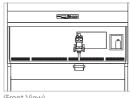
Width: 6ft Microscope: Dual 2 users For efficient use of space



(Front View)

MAW-6D MONO

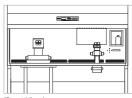
Width: 6ft Microscope: Single 1 user More space for other work.



(Front View)

MAW-6D -MP

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

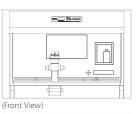


(Front View)



MAW-4D_-MC

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

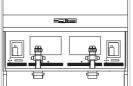




(Worktop View)

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

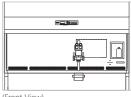
MAW-6D -MP-

Microscope: Single Stereomicroscope,

MC

Width: 6ft

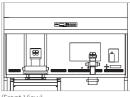
1 Inverted microscope set-up MIRI Chambers: 2



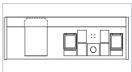
(Front View)



(Worktop View)



(Front View)



(Worktop View)

General Specifications



Esco Multi-Zone ART Workstations

| Model | MAW-3D8 | MAW-4D_ | MAW-6D_ | MAW-6DDUAL | MAW-6DMP |
|--|---|---|---|---|--|
| 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 | | Avera | ge of 0.21m/s or 41 fpm (± | 20%) | |
| Filter efficiency | >99.9 | 99% for particle size betwee | en 0.1 to 0.3 microns per IE | ST-RP-CC001.3 / H14 per EN | 1822 |
| Pre-filter | | Disposable and non-wash | able polyester fibers with 8 | 5% 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 | | | MAW-6D -MP-MC | |
|--|--|---|------------------------------------|---|--|--|
| | Nominal Size | 1.2 meter (4") 1.8 meter (6") 1.8 meter (6") 1.8 | | | 1.8 meter (6") | |
| | nal Work Area, ons (W x D x H) | 1260 x 500 x 710 mm 1870 x 500 x 710 mm 1870 x 500 x 710 mm 1870 x 490 x 780 mr (49,6 x 19,7 x 28.0°) (73.6 x 19.7 x 28.0°) (83.6 x 19.7 x 28.0°) (73.6 x 19.3 x 30.7°) | | | | |
| | nsions without nd (W x D x H) | | | | 1950 x 647 x 1360 mm (76.8 x 25.4 x 53.5") | |
| External Dimen type | sions with "B" support stand (W x D x H) | 1340 x 640 x 2160 mm 1340 x 640 x 2160 mm 1950 x 640 x 2160 mm 1950 x 640 x 2160 mm (52.8 x 25.2 x 85.0") (52.8 x 25.2 x 85.0") (76.8 x 25.2 x 85.0") (76.8 x 25.4 x 87.4") | | | 1950 x 647 x 2220 mm (76.8 x 25.4 x 87.4") | |
| | Main Body | 1. | 2 mm (0.05") 18 gauge electro-galv | vanized steel with white oven-bake | d | |
| Cabinet | Work Zone | | 1.2 mm (0.05") 18 gauge | stainless steel, grade 304 | | |
| Construction | Side Walls | | Tempered Glass | | | |
| | Sash | (Optional: Polycarbonate sash for MAW with built-in UV light) | | | | |
| Lami | nar air velocity | Average of 0.21m/s or 41 fpm (± 20%) | | | | |
| ULPA F | ilter efficiency | >99.999% for particle size between 0.1 to 0.3 microns per IEST-RP-CC001.3 / H14 per EN 1822 | | | 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 | | | | |
| Includ | ded accessories | including tubing including tubing including tubing including | | 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 CIMOS Color Sensor, 3088x2076 Pixels, Rolling Shutter, USB Type-C Connector, CS/C-Mount, HQ-IR Filter, Dimension 47 mm x 46 mm.

| ITEM CODE | MODEL CODE | DESCRIPTION |
|------------------|-------------------------------------|---|
| Esco ART Worksta | ation Basic Configuration | and Multi-Purpose |
| 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 |
| Esco ART Worksta | ation with MIRI® Chambe | rs |
| 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 |
| ART Workstation | with MIRI [®] Chambers and | d Trigas Mixer |
| 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 |
| Stereomicroscope | 2 | |
| 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") |

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



Versati[™] Tabletop Centrifuge



Versati[™] Tabletop centrifuge stands out among the samelevel products with its versatility, running features, and easy handling. It can be used with high-capacity and low-to-highspeed 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.



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

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.



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 flatbottom buckets made of polypropylene can hold up to 4 x 250 ml tubes. It has flexible adapters ideal for medical and biotechnology laboratories.



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.



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.



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

<u>MCV</u> - <u>88</u> - <u>8</u>

| Model | Code | Centrifuge Capacity | Code | Electrical Supply | Code |
|-------------------------------|------|---------------------------------|------|-------------------|------|
| Micro Centrifuge Ventilated | MCV | Maximum Sample Capacity (ml) | | 230 VAC 50/60 Hz | 8 |
| | | | | 120 VAC 50/60 Hz | 9 |
| Micro Centrifuge Refrigerated | MCR | | 88 | 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 |
|--------------------|-----------|---|
| MCV - 88 - 8 | 2220001 | Micro Centrifuge Ventilated 230 VAC, 50/60 Hz |
| MCV - 88 - 9 | 2220002 | Micro Centrifuge Ventilated 120 VAC, 50/60 Hz |
| MCR -88 -8 2220003 | | Micro Centrifuge Refrigerated 230 VAC, 50/60 Hz |
| MCR -88 -9 | 2220004 | Micro Centrifuge Refrigerated 120 VAC, 50/60 Hz |

Guide to Models

<u>TCV - 1500 - 8</u>

| | | | | × | |
|----------------------------------|----------------|---------------------------------|------|-------------------|------|
| Model | Code | Centrifuge Capacity | Code | Electrical Supply | Code |
| Tabletop Centrifuge Ventilated | TCV Maximum | | | 230 VAC 50/60 Hz | 8 |
| | | Maximum Sample Capacity (ml) | 4500 | 120 VAC 50/60 Hz | 9 |
| Tabletop Centrifuge Refrigerated | TCR | | 1500 | 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 |
|------------|-----------|--|
| TCV-1500-8 | 2220005 | Tabletop Centrifuge Ventilated 230 VAC, 50/60 Hz |
| TCV-1500-9 | 2220006 | Tabletop Centrifuge Ventilated 120 VAC, 50/60 Hz |
| TCR-1500-8 | 2220007 | Tabletop Centrifuge Refrigerated 230 VAC, 50/60 Hz |
| TCR-1500-9 | 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 CO₂ / O₂ incubators
- CO₂ / O₂ 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 temerature 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 ₂ / O ₂ / 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 |

SAFE Sens

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.

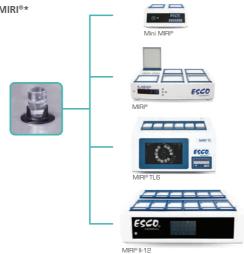
*Factory-installed. No option yet to install on-site for previously ordered MIRI®.

**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 | |
|-------------------------|-------------------|--|--|
| MIRI [®] TL6 | | | |
| 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 | |
| MIRI® TL12 | | | |
| 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 | |
| MIRI® | | | |
| 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 | |
| Mini MIRI® | | | |
| 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 | |
| MIRI [®] II-12 | | | |
| 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 | SAFE Sens QC2 Alignment Tool |
| 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 SARE 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

Hole for SAFE Sens



1 pc heating plate with hole for SAFE Sens



5 pcs heating plate without hole

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 $\ensuremath{^{\rm TM}}$ 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 | 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 mixups, 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 marketleading 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.

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