



## Esco Products and Services Guide

Dedicated to delivering innovative solutions for the clinical, life sciences, research, industrial, laboratory, pharmaceutical, and IVF community



# Table of Contents

<b>Corporate Profile</b> .....	3
<b>Tradition of Quality and Innovation</b> .....	4
<b>Sample Preparation</b>	
Biological Safety Cabinets.....	9
Laminar Flow Cabinets.....	10
Animal Research Workstations.....	11
Laboratory Centrifuges.....	12
<b>Sample Cultivation</b>	
CO <sub>2</sub> and CO <sub>2</sub> / O <sub>2</sub> Incubators.....	13
Laboratory Shakers.....	14
<b>Sample Storage</b>	
Laboratory Refrigerators and Freezers.....	15
Upright Ultra-low Temperature Freezers.....	16
<b>Sample Protection</b>	
Remote Monitoring, Datalogging, Programming Software.....	17
Intelligent Remote Monitoring Application Protocol.....	18
Wireless Monitoring System.....	19
<b>Chemical Research</b>	
Ductless Fume Hoods.....	20
Filtered Storage Cabinets.....	21
Ducted Fume Hoods.....	22
<b>General Equipment</b>	
Laboratory Thermostatic Products.....	23
<b>Sample Handling and Analysis</b>	
Conventional Thermal Cyclers, Microplate Shaker.....	24
PCR Cabinets.....	25
<b>Disinfection and Air Purification Technologies</b> .....	26
<b>Esco Healthcare Solutions</b>	
Esco Pharma.....	27
Esco TaPestle Rx.....	28
Esco VacciXcell.....	29
<b>Assisted Reproductive Technology (ART) Equipment</b> .....	30
<b>After-Sales Services</b> .....	31
<b>Esco Lifesciences Global Network</b> .....	32



# Welcome to Esco Lifesciences

Esco Lifesciences' vision is to provide enabling technologies for scientific discoveries to make human lives healthier and safer.

Esco Lifesciences is committed to delivering innovative solutions for the clinical, life sciences, research, industrial, laboratory, pharmaceutical, and IVF communities. With the most extensive product line in the industry, Esco has passed a number of international standards and certifications. Esco Lifesciences represents innovation and forward-thinking designs, that are of the highest standard quality since 1978.

**Availability and Accessibility.** Esco Lifesciences has headquarters in Singapore, Indonesia, and Philippines, with manufacturing facilities located in Asia and Europe. Research and Development (R&D) is conducted worldwide spanning the US, Europe and Asia. Sales, services, and marketing subsidiaries are located in 42 major markets including US, UK, Japan, China and India. Esco regional distribution centers are located in Singapore, Malaysia, Thailand, Vietnam, Myanmar, Indonesia, Philippines, Bangladesh, Hong Kong, Taiwan, South Korea, China, Japan, India, UAE, Central and South Africa, Denmark, Germany, Italy, Lithuania, Russia, United Kingdom, and USA. Because of our worldwide presence, you can be sure that Esco is within your reach.

**High Quality, Reliable, and Dependable.** Esco Lifesciences products are of high quality, reliable, and dependable. Cross-functional teams from Esco Production, R&D, Quality Assurance, and Senior Management, are regularly assembled to review and implement areas for improvement.

**Esco Lifesciences Cares for Your Safety.** Esco Lifesciences focuses on providing safety not just for your samples, but also for you and the environment.

**Esco Lifesciences Cares for Your Comfort.** Building ergonomic designs and reducing noise levels of the units ensure comfort for our users.

**Esco Lifesciences Cares for the Environment.** Esco Lifesciences incorporates the latest proven technologically advanced components available. One in every four of Esco's employees is involved in Research and Development and are evaluating new components or designs for better efficiency. Whenever a new technology is available, Esco Lifesciences redesigns technology into our new products that will use lesser energy.

**Customer Service and Support.** Our service does not stop once purchase has been done. Esco Lifesciences gives on-time customer service such as service training, preventive maintenance, and re-certification, to respond to your equipment needs. Esco Lifesciences also offers free end-user seminars and provides educational materials and informative videos.

As Esco Lifesciences takes the opportunity to respond to the world's needs, we aim not only to contribute to the advancement of scientific discoveries but also in making the world a safer, healthier, and better place to live in.





# Tradition of Quality and Innovation

Since the establishment of Esco in 1978, we have 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.

**1978**

Esco manufactures the first laminar flow cabinet; designs and builds its first microelectronics Class 10,000 cleanroom for Siemens Corporation.

**1984**

Esco designs and builds Class 100 laundry and becomes the first company in the region to enter the cleanroom laundry business.

**1990**

Esco expands distribution to pharmaceutical, life science, biotechnology and medical research markets.

**2000**

Esco begins transformation into a life sciences tools company.

**2001**

Esco earns first EN 12469 certification for biological safety cabinet.

**2004**

Esco earns first NSF / ANSI certification for biological safety cabinet.

**2005**

The Chinese Food and Drug Administration invites Esco to participate in a joint committee to develop the National Standard for Biological Safety Cabinets.

Esco launches its first line of Ductless Fume Hoods.



**2006**

Esco earns on-site UL accreditation.

**2007**

Esco became member of NSF Joint Committee and JACA Committee.

Esco launches VIVA® Animal Containment Workstations.

Worldwide expansion of sales and services through the establishment of offices in USA, UK, China, and Bahrain.



**2008**

Esco launches Isoclean®  
- new compounding pharmacy isolators.



Esco launches Frontier® Acela  
- the world's first ergonomically designed, angled front, high performance low flow fume hood.



Esco launches Labculture® Class II (Low Noise Series)  
- introduced as the industry's lowest noise (~50dBA per EN) biological safety cabinet.



Esco launches Infinity®  
- the world's first biological safety cabinet designed with a redundant dual fan system that guarantees operator protection even in case of a single fan failure.



## 2009

Esco launches Isotherm®  
- new Laboratory Ovens and Incubators.



Esco launches Pharmacon™  
- new Downflow Booths.



Esco launches Swift® MaxPro and MiniPro new generation PCR thermal cyclers.



Esco launches Labculture® *In Vitro* Fertilization Workstations.



## 2010

Esco launches CelCulture® CO<sub>2</sub> incubator.



## 2011

Esco launches Lexicon® range of Ultra-low Temperature Freezers.



Esco launches CelCulture® CO<sub>2</sub> incubator with Suppressed O<sub>2</sub> feature.



## 2012

Esco manufactured the lowest noise (45 dBA) BSC in the world for a large installation in Karolinska Institute, Sweden.



Esco launches the Esco Medical Division, providing world class ART/IVF solutions worldwide, with a focus on the new MIRI® Multiroom Embryo Incubator.



Esco Pharma equipment was launched at PMEC China exhibition.

## 2013

Esco launches Airstream® G3 Class II, the greenest low noise biological safety cabinet in the world.



Esco launches eSafe®, the technologically and ergonomically advanced TÜV-NORD certified BSC.



Esco launches MIRI® GA Gas and Temperature Validation Unit.



Esco launches Anti-Vibration Table (AVT)



Esco launches Multi-Zone ART Workstation.



Esco launches MIRI® Time-Lapse incubator



## 2014

Singapore Prestige Brand Award (SPBA) recognized and honoured Esco as the overall winner in the Maybank Regional Brands category.



Esco launches CelCulture® CO<sub>2</sub> Incubator (Direct Heat Air-Jacketed, Water Jacketed and with Cooling System)



## 2014

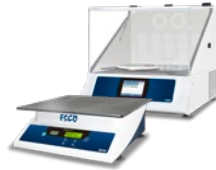
Esco launches Biostream® Biosafety Cabinets Class II Type A2 cabinet for Japan market.



Esco launches AgriSafe® Food Safety Cabinets for the Food Industry.



Esco launches OrbiCult™ Shakers.



Esco launches NSF version of Airstream® Class II Cabinets, the leading energy-efficient biosafety cabinet in the world.



Esco launches Gen 2 VIVA® Dual Access Animal Containment Workstations, the quietest animal containment workstation in the world.



Esco launches Airstream® Reliant Biosafety Cabinets with simple switches, and UL and NSF certified (4 ft. model).



## 2015

For the second time in a row, Singapore Prestige Brand Award (SPBA) recognized Esco as the overall winner in the Maybank Regional Brands category.



Esco launches Versati™ centrifuges - equipped with maintenance-free motors, robust mechanism, and intelligent Versati™ microprocessor control system that offers extreme reliability and safety.



## 2016

Introduced Esco Healthcare as part of the group in the Esco Group of companies, with the following Divisions:

1. Esco Pharma - provides specialist services, equipment packages and process solutions leading to improved protection of operators, reduction of cross-contamination and more efficient processing, thereby advancing occupational health and human healthcare.
2. Esco VacciXcell - specializes in adherent bioprocessing, provides design & manufacture of single-use, multiple-use and hybrid bioreactor solutions for the vaccine, cell therapy, and biologics industry.
3. TaPestle Rx - specializes in healthcare & laboratory design and construction.

Esco receives the Hall of Fame Award from Singapore Prestige Brand Award for winning 3 consecutive years.



Esco launches Streamline® Compounding Isolator - Total Exhaust Model (SCI-TE) Compounding Aseptic Containment Isolator.



Esco launches Isoclean® Healthcare Platform Isolator (HPI-G3)



Esco launches Containment Barrier Isolator (CBI)



Esco launches BioNOC™ II - Cell Culture Matrix / Carrier



Esco launches GlucCell™ - Glucose Monitoring System



**2016**

Esco launches CelCradle™  
- Upstream Process / Bioreactor



Esco launches VXL™ Hybrid  
-A 4-in-1 Bioreactor



Esco launches TideCell™  
- Adherent Tide Motion Bioreactor  
(Pilot/Production Scale)



Esco launches StirCradle™ PRO  
- Fermenter / Stirred Tank  
Bioreactor (Production Scale)



Esco launches CradlePro Isolator  
(CPI)



Esco launches Sampling Rigid  
Isolator.



Esco launches Ventilated Balance  
Enclosure (VBE)



Esco launches Advanced  
Processing Platform Isolator  
(APPI)



**2016**

Esco launches EDVC / EDHC  
Evidence Drying Cabinet.



Esco launches BioVap™  
Biodecontamination System.



Esco launches Mini MIRI® Humidity  
Incubator



Esco launches Multi-Zone ART  
Workstation with MIRI®  
Chambers.



Esco launches SCE  
- Semi Closed Environment



**2017**



Esco launches Esco Aster™ - an independent Contract Development and Manufacturing Organization (CDMO) in the Esco Group of companies, specializing in contractual development and manufacturing of services from upstream to downstream processing.

Esco launches Specialized Ductless  
Fume Hoods  
- ForMax™ and TitraMax™



Esco launches CelCulture®  
CO<sub>2</sub> Incubator with High Heat  
Sterilization.



## 2018

Esco was named and recognized as one of 2018 Singapore's Top Employer Brands at Influential Brands® 2018 CEO Asia Summit.



Esco acquired the AT Medical UAB, which was renamed as Esco Medical Technologies UAB and continue operations as a separate legal entity within Esco Lifesciences Group ecosystem.

Esco launches Bio Booth, a Class II Walk-In Containment Enclosure.



Esco launches Sputum Booth.



Esco launches BioPass™ Pass Through



Esco launches upgraded Turbulent Flow Aseptic Isolator (TFAI™) with Pod Flange™ a flexible and detachable worktop.



Esco launches Cell Processing Isolator (CPI)



Esco launches Ascent™ Storage Cabinet



Esco launches MIRI® Time Lapse Incubator with 6 Chambers or 12 Chambers



Esco launches SAFE Sens integration to MIRI®, Mini MIRI® and MIRI® TL



## 2019

Esco launches CelXrocker™  
- Laboratory Shaker with Tide Motion Parameters



Esco launches CelCradle X®  
- cGMP Adherent Bioreactor for Autologous Cell Therapy



## 2020



Esco Aster launches its range of COVID-19 products for a Trace, Test, and Treat Platform



The company shifted from Esco Group of Companies to Esco Lifesciences Group carrying a new tagline "Improving lives through science." and launched the Laboratory Division as Esco Scientific.

Esco launches Isoclean®  
Healthcare Platform Isolator  
- Inflatable Seal Model



Esco launches BioXcell®  
- Benchtop Stirred-tank Bioreactor



## 2021

Esco launches its first filtration platform tool, AsterFlow™



Esco launches BioMESH®  
- A New Generation of Macroporous Carriers



Esco launches new website ([www.escolifesciences.com](http://www.escolifesciences.com)) and the Disinfection and Air Purification Technology products.





## Biological Safety Cabinets



### Introduction

Esco is a world leader in biological safety cabinets, offering the industry's widest product range, with thousands of installations in leading laboratories in more than 100 countries around the globe. Esco's biological safety cabinets have earned more independent certifications, in more countries, in more languages, than any other product, demonstrating our commitment to the industry's best safety and quality.

### Features

- Energy saving DC ECM blower\*
- Isocide™ antimicrobial powder coating
- H14 filter or ULPA filter with 99.999% efficiency at 0.1 – 0.3 µm selection.
- Large performance envelope
- Ergonomic design
- Low noise
- Easy to clean

\*most models

### Product Lines

- Class I Biological Safety Cabinets  
*Brand Available: Airstream®*
- Class II Type A2 Biological Safety Cabinets  
*Brands Available: Airstream®, Airstream® Reliant, Labculture®, Labculture® Reliant, Biostream®*
- Class II Type B1 Biological Safety Cabinets  
*Brand Available: Labculture®*
- Class II Type B2 Biological Safety Cabinets  
*Brands Available: Labculture®, Airstream®*
- Class II Biological Safety Cabinets  
*Brands Available: Airstream®, Airstream® Plus*
- Class III Biological Safety Cabinets  
*Brand Available: Airstream®*
- Lead-Shielded Class II Biological Safety Cabinets  
*Brand Available: Airstream®, Cytoculture®, Labculture®*
- Floor-Mounted Class II, Type A2 Biological Safety Cabinets  
*Brand Available: BioBooth®*
- Floor-Mounted Class II, Type B2 Biological Safety Cabinets  
*Brand Available: BioBooth®*

### Certifications



## Laminar Flow Cabinets



### Horizontal Laminar Flow Cabinets



LHG-4\_G-F\_ LHS-4\_G-F\_ LHG-4DS-F\_

### Vertical Laminar Flow Cabinets



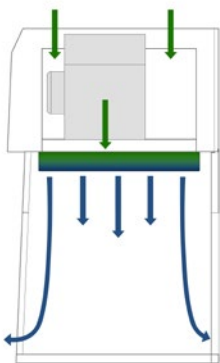
LVS-4A\_ LVS-4\_G-S\_ LVS-4\_G-F\_ LVG-4\_G-F\_ ACB-4E\_

#### Introduction

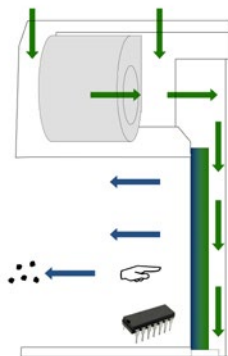
Esco is an industry leader in the development of professional quality laminar flow cabinets for the global life sciences market. With tens of thousands sold throughout the life sciences market worldwide, Esco has reinforced its reputation for dependability by providing reliable protection for samples and work processes in a multitude of applications.

Our selection of Vertical, Horizontal and Specialty laminar flow cabinets offers a variety of choices for installations where high-quality construction is essential. They are aerodynamically engineered and use only premium quality ULPA and HEPA filters with integrated motor/blower assemblies for quiet operation and long service life.

Since 1978, Esco has emerged as the industry leader producing laminar flow cabinets that are the premium selection for the discerning researcher, offering a combination of value, high-quality construction, low operating noise levels, and a wide product range to suit all budgets.



- Vertical Laminar Flow Cabinet
- Air does not blow straight to user's face
  - Air curtain is not disrupted by large object



- Horizontal Laminar Flow Cabinet
- Easier to put sensitive material near clean air source
  - Contaminant is not blown towards sensitive material

#### Product Lines

- Horizontal Laminar Flow Cabinets
- Horizontal Laminar Flow Cabinets for Plant Tissue Culture
- Vertical Laminar Flow Cabinets (sliding or fixed sash window)
- Vertical Laminar Flow Cabinets with Black Interior, suitable for optical industries

Brands Available: Airstream®, OptiMair™

#### Certification



UL 61010



## Animal Research Workstations

### Universal Animal Containment Workstations



VA2-4A\_-E

### Bedding Disposal Animal Containment Workstations



VBD-4A\_

### Dual Access Animal Containment Workstations



VDA-4A\_

### Introduction

Animal research, cage changing and bedding disposal procedures are now simpler, safer, and more productive with the Esco range of VIVA® Animal Research Workstations. Esco's experience in clean air and containment technologies extends to lab animal research products to help protect the investigator, animal technicians, animals, and the environment during research, cage changing and bedding disposal procedures.

VIVA® Animal Research Workstations help laboratories comply with NIOSH recommendations to create a safer, healthier, more productive work environment and to ensure that this is achieved, operator and environment protection of each VIVA® workstation evaluated through the ELISA analysis.

Actual cage changing and bedding disposal operations were performed to simulate how the workstations are used, and allergen concentration at designated areas was sampled. The allergen concentration was quantified using sandwich ELISA method.

The result: VIVA® Workstations offer high levels of operator and environment protection that can substantially help to minimize allergen exposure.

### Product Lines

- Universal Animal Containment Workstations
  - Dual Access Animal Containment Workstations
  - Bedding Disposal Animal Containment Workstations
- Brand Available: VIVA®

### Certification



UL 61010



## Laboratory Centrifuges



### Micro Centrifuges

### Tabletop Centrifuges



MCV-88-\_\_

MCR-88-\_\_



TCR-1500-\_\_

TCV-1500-\_\_

### Introduction

Esco offers the best choice for high performance and superior quality centrifuge—Versati™ centrifuges. It is equipped with maintenance-free motors, durable mechanism, and intelligent Versati™ microprocessor control system that offers extreme reliability and safety. Versati™ has a robust versatility covering micro centrifuge and low-to-high speed general-purpose centrifuge with variety of rotors, adapters, and accessories to fit all your application needs and suit various consumable tubes, strips, and plates.

### Features

- Distinct control panel and intelligent Versati™ microprocessor control system
- Genuine-Protect™ safety lid lock
- V-balance™ weight imbalance protection
- Smartdrive™ rotor auto recognition
- Isocide™ antimicrobial powder coating
- Diverse choices of rotor (swing-out and fixed-angle rotors)
- Integrated design of interior centrifuge chamber
- Temperature range from -20°C to 40°C with 1°C increments (for refrigerated models only)
- Maintenance-free, brushless motor
- CFC-free refrigeration system
- Emergency switch
- Polished and practical appearance
- Maximum speed up to 16,000 rpm (RCF = 24,320 x g)
- Storage of up to 99 programs
- Noise level ≤ 68 dBA (depends on the rotor)

### Product Lines

- Micro Centrifuge Ventilated (MCV)  
Max sample capacity: 88 ml
  - Micro Centrifuge Refrigerated (MCR)  
Max sample capacity: 88 ml
  - Tabletop Centrifuge Ventilated (TCV)  
Max sample capacity: 1500 ml
  - Tabletop Centrifuge Refrigerated (TCR)  
Max sample capacity: 1500 ml
- Brand Available: Versati™

### Certification



CE

## CO<sub>2</sub> and CO<sub>2</sub> / O<sub>2</sub> Incubators

### CelCulture®



CCL-170\_ \_

### CelCulture® with Cooling System



CCL-240\_ \_-P

### CelCulture® with Copper Interior



CCL-240\_ \_-Cu

### CelCulture® with High Heat Sterilization



CCL-170\_ \_-HHS

### CelCulture® with High-Temperature CO<sub>2</sub> Sensor



CCL-170\_ \_-HITEMP

### CelCulture® with Stainless Steel Exterior



CCL-240\_ \_-SS

### CelMate®



CLM-170B\_ \_

### Introduction

Esco CO<sub>2</sub> Incubators offer the best temperature and CO<sub>2</sub> / O<sub>2</sub> control for the optimum growth and development of cells. It is designed for high-quality incubation performance through the precise control of heating and gas injections combined with multiple contamination control and ergonomic features appropriate for safe incubation of many types of cells and tissues.

### Features

- **Precise Parameter Control**
  - Best uniformity and control among competition, which means samples are evenly heated.
  - Fast CO<sub>2</sub>, temperature and humidity recovery without overshoot.
  - Direct heat and air jacket for rapid temperature recovery and provide isolation from ambient temperature fluctuations.
  - Forced convection system accelerates recovery of chamber air after door closing to prevent contamination.
  - All Esco CO<sub>2</sub> incubators are now equipped with heat-resistant infrared CO<sub>2</sub> sensor for enhanced precision and stability.
- **Robust Contamination Control for Optimum Protection**
  - SteriSafe™ ULPA Filtration System
  - Validated SwiftCon™ 90°C Moist Heat Decontamination Cycle (CelMate® and CelCulture®)
  - 180°C High Heat Sterilization Cycle (CelCulture® HHS)
  - Filtered Gas Injection Lines
  - Isocide™ Antimicrobial Coating
  - Optional Copper Interior
  - Optional UV Lamp
- **User-friendly Controller Software Interface**
  - Comprehensive, user-configurable alarms.
  - CelAlert™ alarm system reminds user to replace parts.
  - Intelligent data and event logger records all incubator parameters for on screen recall. A ~2 Mb built-in flash memory guarantees long-term storage of data.

### Product Lines

- CO<sub>2</sub> Incubators  
Brand Available: CelMate®
- CO<sub>2</sub> and CO<sub>2</sub> / O<sub>2</sub> Incubators
  - Direct Heat Air-Jacketed
  - With Cooling System
  - With Stainless Steel Exterior
  - With Copper Interior
  - With High-Temperature CO<sub>2</sub> Sensor
  - With High Heat Sterilization
  - For *In Vitro* Fertilization
 Brand Available: CelCulture®

### Certifications



UL 61010



## Laboratory Shakers

### Benchtop Ambient Shaker



AS1-NC-19

### Benchtop Incubator Shaker



IBS-R-19-<sub>—</sub>

#### Introduction

Esco offers laboratory shakers that fit all your needs. Cutting Edge Technologies, Robust Mechanism, Flexible Accessories, Intuitive Interface and Environment-friendly Design – making sure that Esco laboratory shakers deliver outstanding features and excellent performance year after year.

#### Features

- **TriDrive™:** Esco's unique triple-eccentric counterbalanced drive supports heavy-duty and high-speed applications.
- **RobustDrive™** mechanism eliminates the need for lubrication as the Brushless DC Motor saves maintenance worries.
- **SmartRun™:** Excellent out-of-balance sensor & proprietary imbalance compensation algorithm ensures smooth operation without any vibration.
- Microprocessor P.I.D. controller enables accurate temperature, gas, speed, and running time settings to deliver reproducible results.
- Unparalleled design provides a broader temperature and speed control range.
- **Programmable Design:** Unit's memory can store up to 15 (for IBS) and 25 (for AS1) steps program with various time, temperature and speed settings.
- **Built for Safety:**
  - Audible and visible alarms alert any speed and temperature deviations.
  - Shaker automatically restarts after power interruption for the non-volatile program saved in the memory.
- Multiple accessories choices allow you to customize the most suitable solution for your applications.

#### Product Lines

- Ambient Shaker (AS1-NC)
- Ambient Shaker - CO<sub>2</sub> Resistant (AS1-C)
- Incubator Benchtop Shaker - Non-refrigerated (IBS-NR)  
Temperature range: 5 °C (above ambient) - 80°C
- Incubator Benchtop Shaker -Refrigerated (IBS-R)  
Temperature range: 10°C (below ambient) - 80°C

Brand Available: OrbiCult™

## Laboratory Refrigerators and Freezers

### Laboratory Refrigerators



HR1-140S-<sub>\_</sub>

HR1-400T-<sub>\_</sub>

### Laboratory Freezers



HF2-400T-<sub>\_</sub>

HF2-1500S-<sub>\_</sub>

### Laboratory Combination Refrigerators and Freezers



HC6-400S-<sub>\_</sub>

HC6-700S-<sub>\_</sub>

### Introduction

HP Series Laboratory Refrigerators and Freezers are high-performance models designed to provide a high level of protection to samples used in life science research and clinical applications.

When superior levels of cold storage performance, reliability, and flexibility are needed, the Esco HP series of Laboratory Refrigerators and Freezers are the best choice.

### Features

#### • High-performance

- Forced-air design instead of regular cold wall for both refrigerators and freezers
- Rapid cool down and fast recovery due to fan assistance
- Fast temperature equilibration
- Intelligent automatic defrost

#### • Sample Safety

- Door lock provides additional security for expensive samples and reagents from unauthorized users
- External surfaces are powder-coated with Isocide™ to eliminate 99.9% of surface bacteria within 24 hours of exposure
- Triple-pane glass doors provide superior insulation compared to any other glass door technology and enables easy location of needed samples with the door closed
- Door will automatically close under 90° when released to maintain temperature and protect samples
- Audible and visual alarms during door opening, high/low temperature, power failure, and clogged condenser filter

#### • User Friendly

- Comfortable, ergonomic handle
- Internal LED lighting
- Wheels with integral brakes are included on every model

### Product Lines

- Laboratory Refrigerator (+2°C to +15°C)
- Laboratory Freezer (-10°C to -25°C)
- Deep Freezer (-20°C to -40°C)
- Laboratory Combined Refrigerator (+2°C to +15°C) and Freezer (-10°C to -24°C)

*Brand Available: HP Series*



## Upright Ultra-low Temperature Freezers

### Silver Controller



UUS-597A-\_-SS

### Gold Controller



UUS-597B-\_-SS

### Introduction

The Lexicon® II series ULT freezer incorporates the best and most complete sample protection and sample organization system of any ULT freezer manufacturer. Ultra-low temperature (ULT) freezers are widely used in scientific research for long-term storage of samples. As ULT freezers are often operated at -80°C continuously for years, reliability is of paramount importance to researchers. Esco has used industry-accepted Highly Accelerated Life Testing (HALT) to stress test a large number of Esco ULT Freezers at extreme conditions. All Esco ULT Freezers passed these extreme stress tests ensuring a design that is optimized to protect your precious samples.

In accordance with ANSI/ASHRAE 72-2005 and ARI 1200-2006/2008 guidelines and as tested by a UL-validated third-party test lab, DNS USA, the Esco ULT Freezers surpassed the performance of 5 major competitors with lower energy consumption, superior cabinet performance (as measured by warm-up time), and demonstrated a larger BTU refrigeration reserve capacity to ensure the highest level of performance and protection of your samples.

### Features

- **Sample Safety and Integrity**
  - Excellent vial capacity with a minimal footprint.
  - All controllers are available in every size to meet customer capacity requirements. Available in 363, 480, 597, and 714 liters.
  - Built with triple gasket seal to provide protection against thermal intrusion.
  - Environment-friendly CFC- and HCFC- refrigerants are used.
- **Performance**
  - Low-noise operation that ensures a quiet and pleasant working environment for laboratory users.
  - Pressure Equalization Port (PEP) to facilitate fast door reopening times.
  - User-friendly display which shows the actual temperature and ambient temperature with clear indication of alarms.
  - USB interface that allows transfer of temperature data (for Gold controller only).
- **Complete event monitoring and logging system**
  - Compatible with **Voyager** Software that allows easy, unified local freezer control and monitoring for proper operation from a central location via user established or local network.
  - **iRMAP** allows for an additional optional Esco service to allow Esco to monitor freezers from a remote location.
  - **PROtect Gen2** Redundant Wireless Sample Monitoring System.
  - **GSM Modem:** a device that alerts the user through SMS in case of sample threatening alarms (for Gold controller only).

### Product Lines

- Ultra-low Temperature Freezer with Silver Controller (Standard)
- Ultra-low Temperature Freezer with Gold Controller (Advanced)

Brand Available: Lexicon® II

### Certification



UL 61010



CE





## Remote Monitoring, Datalogging, Programming Software

### Voyager

#### Introduction

Esco Voyager is a PC-based software package developed for the remote monitoring, data-logging and programming/device configuration of Esco controlled environment laboratory equipment. This software has the capability to push updates to Esco equipment connected to the software. In any event of equipment failure, the software is able to send out remote alarm notification through e-mail. It is also compliant to 21 CFR Part 11 standard for traceability.

#### Features

##### • Remote Monitoring and Data Logging

- Automatic, continuous monitoring of device parameters (Temp, CO<sub>2</sub>, RH, etc.)
- Viewing and graphing device parameters in real-time
- Saving and exporting log data in various formats
- Automatic emailing of log data at user-defined intervals
- Download of data logs from equipment memory (only for devices with built-in data logging memory, i.e. CO<sub>2</sub> Incubators)

##### • Alarm

- Alarms when exceeding a user-defined parameter limit
- Automatic email alerts
- Documentation of all alarms with time/date stamp

##### • Remote Programming and Equipment Configuration

- Development of programs using a graphical interface, for subsequent download to device memory (only for equipment with program functions, i.e. Forced Convection Laboratory Ovens and Incubators)
- Configure devices remotely (set points, local alarm limits, etc.)

#### Minimum System Requirements

- Operation system: 32-bit or 64-bit Windows 2000, 2003 Server, XP, 7, and 10.
- Memory: 4 GB
- Hard disk space: 10 GB
- Interface : USB/RS232/ RS485
- Prerequisite Software: .NET Framework 2.0 (included) Windows Installer 3.1 (included)



#### Compatible Equipment

- Lexicon® – Ultra-Low Temperature Freezer v.1 (Silver and Gold controller)
- CelCulture® – CO<sub>2</sub> Incubator (CCL) v. 1.3.1
- CelMate® – CO<sub>2</sub> Incubator (CLM)
- Isotherm® – Forced Convection Oven (OFA) v. 1
- Isotherm® – Forced Convection Incubator (IFA) v. 1
- Isotherm® – Low Temperature BOD Incubator (IFC) v. 1
- Isotherm® – Natural Convection Incubator (INA) v. 1



## Intelligent Remote Monitoring Application Protocol

### iRMAP

#### Introduction

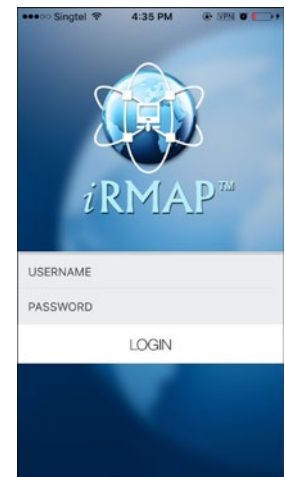
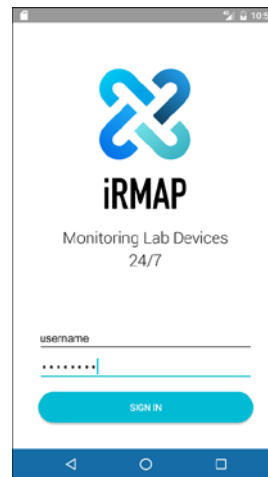
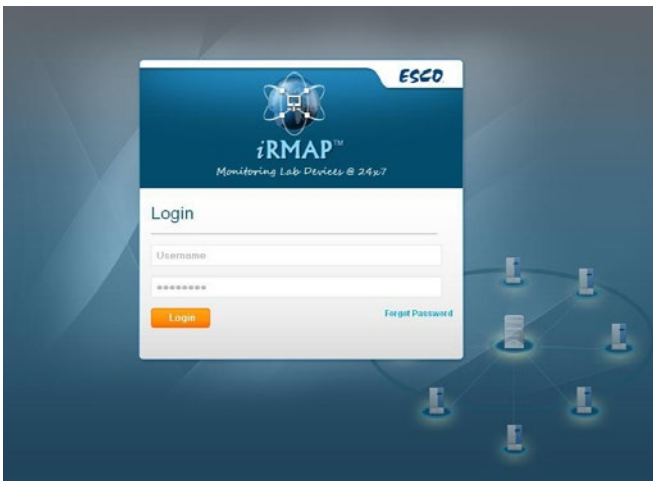
Intelligent Remote Monitoring Applications Protocol (iRMAP) is a cloud service that Esco can provide for any users of Esco incubators and freezers. A user purchases Voyager, installs it on a PC, and connects it up to their freezer network. The monitoring data is encrypted and transmitted to an Esco server. iRMAP is accessible for authenticated users from all over the world using internet.

#### Features

- Users can access Voyager data logs anytime and at any location using web browser applications
- Customer can access and acknowledge alarms and data using all browser in all devices with different platform (IOS,Android, etc.)
- Monitoring data is encrypted and transmitted to a secured server
- Users can access monitored equipment (incubator or freezer) using iOS or Android app.

#### Compatible Equipment

- Lexicon® – Ultra-Low Temperature Freezer v.1 (Silver and Gold controller)
- CelCulture®– CO<sub>2</sub> Incubator (CCL) v. 1.3.1
- CelMate® – CO<sub>2</sub> Incubator (CLM)
- Isotherm® – Forced Convection Oven (OFA) v. 1
- Isotherm® – Forced Convection Incubator (IFA) v. 1
- Isotherm® – Low Temperature BOD Incubator (IFC) v. 1
- Isotherm® – Natural Convection Incubator (INA) v. 1





## Wireless Monitoring System

### PROtect Gen 2

#### Introduction

Esco PROtect Generation 2 monitoring system includes radio frequency recorders that can be connected to any brand of temperature-controlled equipment. These recorders automatically send data to a central server to monitor temperature and other parameters and send real-time alerts to users. Esco PROtect Generation 2 complies with ISO 17025, GMP, and GLP requirements.



#### Features

- PROtect Gen 2 has no dependency on the freezer electronics so, in the event of a catastrophic failure that would prevent all other systems from notifying the user, PROtect can provide the necessary alerts to protect your irreplaceable samples.
- Multiple installations in remote buildings can be monitored and multiple users can access the system simultaneously.
- The PROtect sensors measure, record, and transmit data measurements via the Esco operator network or a private Esco gateway. Very low power consumption (battery life up to 4 years).
- Can be used in ULT freezers (-86°C), cryogenic applications (-196°C), and standard lab refrigerators (4°C) and freezers (-30 to -40°C).
- The sensors are equipped with an internal memory that is able to record up to 10,000 data points.

#### Operating system:

- Windows Server 2012 R2 / Windows Server 2016 / Windows 10 / Windows Server 2019
- IIS Web Server version 8 minimum
- SQL Server Express 2014 or higher version
- Microsoft Framework.NET 4.7.2 or higher version
- Access to SMTP server for email alerts
- Access to a MultiTech GSM Router for text messages alerts

#### Server configuration:

- Processor: 2 cores minimum 2,6GHz
- RAM: 8 GB (4 GB is the minimum required for a small installation, ex: 10 units)
- Hard disk: 4 GB for the installation + 10 GB maximum for stored data. (Microsoft SQL Server Express manages 1 physical processor, 1 GB RAM and 10 GB DATA storage)

#### Customer's Network:

- Allow TCP/IP communications on Port 13251 (Incoming traffic) in case of single server installation (can be changed in MySirius Configuration)
- Incoming/Outgoing traffic: in case of multi-server installation. The Services and the IIS Web server should have access to the Dispatcher.
- Allow TCP/IP communications on Port 13252 (Incoming traffic) for configurations with LoRa devices (can be changed in MySirius Configuration)
- Allow customer SMTP server access for email alerts sending
- Allow communication with a Multitech GSM router for text message alerts sending



ESCO Protect Gateway



Email Alert

--- Ethernet Network --- Radio Communication (500 - 1000 m)

#### LEGEND



PROtect G2 T0, T1, T2, T3  
PROtect G2 Digital  
PROtect G2 U  
PROtect G2

## Ductless Fume Hoods



### Ascent® Opti Ductless Fume Hoods



SPD-4A\_

### Ascent® Max Ductless Fume Hoods



ADC-4B\_

ADC-4D\_

ADC-4C\_

### Specialized Ductless Fume Hoods



SPF-4A\_

PW1-3A\_

SPT-4A\_

### Introduction

The Esco Ductless Fume Hoods provide protection to both laboratory personnel and the environment from toxic fumes. Unlike conventional fume hoods, these hoods filter out chemical fumes and recycle air directly back to the laboratory, providing energy savings, personnel and environmental protection, mobility, and convenience. Esco Ductless fume hoods' fume containment and airflow uniformity meet the requirements of ASHRAE 110, BS 7258, EN 14175-3 and AFNOR NFX 15-203.

### Key Benefits

- **"GREEN" solution**
  - Environment-friendly
  - Does not discharge toxic gases to the environment
  - Saves energy, and reduces total carbon footprint
- **Safe carbon filtration**
  - Compliance to international standards
  - Proprietary Nanocarb™ activated carbon technology
  - Optional VOC sensor system to detect filter saturation
  - FiltraCheck™ service to qualify your application's suitability for a ductless solution
- **Low cost**
  - No ductwork required
  - No exhaust system required
- **Convenience**
  - No installation hassle
  - Mobile and flexible

### Product Lines

- Ductless Fume Hoods  
*Brand Available: Ascent® Opti*
- Standard Ductless Fume Hoods  
*Brand Available: Ascent® Max (B-Series)*
- Ductless Fume Hoods - with Secondary Back Up Carbon Exhaust Filter  
*Brand Available: Ascent® Max (C-Series)*
- Ductless Fume Hoods - with Transparent Back Wall  
*Brand Available: Ascent® Max (D-Series)*
- Ductless Fume Hoods - with Secondary HEPA Filter  
*Brand Available: Ascent® Max (E-Series)*
- Specialized Ductless Fume Hoods  
*Brands Available: PowderMax™ for Powder Weighing Applications  
ForMax™ specialized as a Formalin Dispensing Unit  
TitraMax™ for Titration Applications*

### Certifications



ASHRAE 110



AFNOR NF X 15-203



EN 14175-3

BS 7258

BS 7989

## Filtered Storage Cabinets



For Liquid Chemicals

For Powdered Chemicals

For Both Liquid and Powdered  
Chemicals



ASC\_A\_

ASC\_C\_



ASC\_D\_



ASC\_B\_

ASC\_E\_

### Introduction

Fumes from chemical containers may result to the corrosion of the storage cabinet and contamination of the air in the laboratory. Esco offers a filtered storage cabinet that is equipped with carbon and HEPA filters that remove toxic chemical fumes and particles to provide operator and environment protection. It is also constructed from corrosion-resistant materials to guarantee a long-lasting performance.

### Features

- Acrylic doors with lock and alarms
- Polypropylene trays with a maximum load of 40 kg
- Multiple filter configurations to suit your chemical storage needs
- VOC sensor to detect filter saturation

### Product Line

Brand Available: Ascent®

## Ducted Fume Hoods



### General Purpose Ducted Fume Hoods



EFH



EFD

### High Performance Ducted Fume Hood



EFA

### Full Polypropylene Ducted Fume Hood



PPH

### Specialized High Performance Ducted Fume Hoods



EFQ



EFP



EFI



EFA-M



EFF

### Introduction

Esco Ducted Fume Hoods guarantees superior fume containment and durability as it complies with international standards ASHRAE 110-2016 and EN 14175.

### Features

- Durable construction made of industrial grade electro-galvanized steel with corrosion and abrasion resistant, oven-baked, powder-coated finish.
- Precisely tuned aerodynamic design eliminates air turbulence, minimizes noise levels and static pressure losses.
- Constant volume/high performance concept eliminates the need for complex VAV systems.
- Ensured maximum containment through computational fluid dynamics design.
- Isocide™ antimicrobial coating prevents surface contamination and inhibits bacterial growth.

### Product Lines

- General Purpose Fume Hoods  
*Brands Available:* Frontier® Mono, Frontier® Duo
- High Performance Fume Hood  
*Brand Available:* Frontier® Acela
- Specialized High Performance Fume Hood  
*Brands Available:* Frontier® Acid Digestion, Frontier® Perchloric Acid, Frontier® Radioisotope, Frontier® Acela™ M, Frontier® Floor Mounted
- Full Polypropylene Fume Hood – Trace Metal Applications  
*Brand Available:* Frontier® PPH
- Chemical Fume Scrubbers  
*Brand Available:* EnviroSAFE
- Exhaust Blowers
- Fume Hood Airflow Monitors  
*Brand Available:* Sentinel™ XL

### Certifications



ASHRAE 110



EN 14175



UL 1805

## Laboratory Thermostatic Products



### Laboratory Oven



OFA-110-<sub>-</sub>

### Forced Convection Laboratory Incubator



IFA-110-<sub>-</sub>

### Natural Convection Laboratory Incubator



INA-110-<sub>-</sub>

### Refrigerated Incubator



IFC-110-<sub>-</sub>

### Introduction

Esco Isotherm® world-class laboratory ovens and incubators—great choice for high-forced volume thermal convection applications and temperature-controlled environment. With ergonomic design, microprocessor PID controls, 4-zone heated air jacket and precisely tuned and tested ventilation and insulation package, Esco Isotherm® is your reliable equipment for universal applications.

### Features

- Wide range of programming options
- Multiple over-temperature protection systems guarantee maximum sample and user protection
- Access port for temperature validation and mapping
- Isocide™ antimicrobial coating prevents surface contamination and inhibits bacterial growth

### For Forced Convection Ovens, Incubators and Refrigerated Incubators

- Pre-heat chamber technology
- Forced convection design provides faster temperature response rates, improved uniformity, and reduced fluctuation
- Fan speed and air exchange rates are adjustable
- Ergonomic door handle with keylock
- Optional stainless steel main body meets pharmaceutical and clinical laboratory requirements

### For Natural Convection Incubators

- Natural convection design best suits for gentle ventilated incubation requirement
- Ergonomic door handle

### Product Lines

- Laboratory Ovens
- Forced Convection Laboratory Incubators
- Natural Convection Laboratory Incubators
- Refrigerated Incubators

Brand Available: Isotherm®

### Certification



CE

## PCR Thermal Cyclers



Swift™  
MiniPro®



Aeris™  
Thermal  
Cyclers



Swift™  
ProGene

### PCR Thermal Cyclers

#### Introduction

Esco offers a choice of conventional and real-time thermal cycler models designed to meet critical requirements for almost all kinds of PCR variants such as Gradient PCR, Touchdown PCR, High-throughput PCR, in situ PCR, quantitative PCR, relative quantification, and so on. Block configurations are available for a number of sample formats of PCR tubes, strips, plates, and slides.

#### Features

- Excellent temperature uniformity and stability
- Suitable for various sample formats, which can simplify experiments
- User-friendly controls and operation
- Long warranty period wipes your worries away
- High heating and cooling rates

#### Product Lines

- Conventional PCR Thermal Cycler  
*Brands Available: Aeris™, Swift™*
- Real-time PCR Thermal Cycler  
*Brand Available: Swift™ ProGene*

### Microplate Shakers

#### Introduction

The Esco ProvoCell™ Shaking Micro Incubator is designed for a wide variety of mixing applications for accurate incubation of reactions and denaturation of nucleic acids and proteins. ProvoCell™ combines an advanced microprocessor-based controller with Peltier heating and cooling to deliver outstanding reliability, safety and overall performance.

#### Features

- 7 easily interchangeable blocks designed to suit most of your laboratory applications.
- Digitally controlled
- Advanced Peltier heating and cooling technology

## Automated Nucleic Acid Extraction System



Swift™ Extract

### Automated Nucleic Acid Extraction System

#### Introduction

The Esco Swift™ Extract Automated Nucleic Acid Extraction System can be used to extract from variety of samples, cells, and viruses coupled with extraction kits that offer a simple, fast, and cost-effective techniques to isolate DNA/RNA.

#### Features

- High extraction efficiency
- Standard programs
- Safe for use
- High temperature accuracy

#### Product Line

- Automated Nucleic Acid Extraction System  
*Brand Available: Swift™ Extract*

## Microplate Shakers

#### Product Line

- Microplate Shaker/Incubator  
*Brand Available: ProvoCell™*



ProvoCell™ Shaking  
Micro Incubator



ProvoCell™ II



## PCR Cabinets



*Streamline® SCR-2A\_*



*Airstream® PCR-4A\_*

### PCR Cabinets

#### Introduction

Polymerase Chain Reaction (PCR) is a process where millions of copies of DNA are amplified from a single copy or low copy number template. Because of the high copy number generated during PCR, it is also essential to prevent possible contamination of the PCR samples.

#### Features

- Greater protection against contamination from the ambient environment and cross-contamination within the main chamber.
- High quality polyester pre-filter and main HEPA filter with a typical efficiency of >99.99% at 0.3 microns.
- Built-in UV lamp with timer to facilitate decontamination between PCR cycles.
- Available in 0.6, 0.9 and 1.2 meter models (2', 3' and 4').

#### Product Line

- Polymerase Chain Reaction Cabinets  
*Brands Available: Airstream®, Streamline®*

## Disinfection Technologies



*ASD-S  
Automatic Hand Sanitizer  
Dispenser*



*Automatic Temperature  
Measurement and  
Disinfection Machine*

## Air Purification Technologies



*PS-501T1  
Ceiling Air Purifier*



*AP-1300  
Airstream® PURE Air Purifier*

### Disinfection Technologies

#### Introduction

Esco offers disinfection devices that dispense liquid sanitizer with a contactless mechanism. These dispensers are great additions to laboratories, offices, malls, and homes to help promote a cleaner and safer environment.

#### Features

- Refillable 1000mL container
- Automatic induction
- Can be wall-mounted or stand-mounted

#### For Automatic Temperature Measurement and Disinfection Machines

- Quick and accurate temperature measurements
- Alarm function
- °C/°F unit available

### Air Purification Technologies

#### Introduction

The Esco Ceiling Air Purifier and Airstream® PURE Air Purifier are designed to remove unwanted odors and indoor pollutants such as pollens, volatile compounds, dust, and mold spores in the air. Equipped with an effective filtration system, these air purifiers are more than capable of providing clean and fresh indoor air.

#### Features

- Low noise operation
- Effective filter system
- Removes indoor pollutants and odors
- Disinfects and sterilizes air
- Provides clean air

Esco Healthcare enables a complete translational discovery to delivery within the Healthcare Industry from research and development to clinical trials, final commercial production, and pharmacy compounding/stem cell therapy.



Esco Pharma is a leading manufacturer of containment and isolation systems with a global footprint spanning US, Europe and Asia. We provide standardized platforms with built-in configurations while ensuring operational parameters are not compromised. This enables the manufacture of internationally compliant pharmaceuticals, nutraceuticals, and cosmeceuticals.

Esco Pharma's largest global network of localized application specialists and service offices, provide faster service response than others; translating into more competitive maintenance costs and shorter project life cycles.

Esco Pharma provides specialist services, equipment packages, and process solutions from our core platform products. This leads to improved operator protection, reduction of cross contamination, and a more efficient processing; thus, directly and indirectly advancing occupational health and human healthcare.

### Esco Pharma Products

#### Airflow Containment

- BioBooth®
- Ceiling Laminar Airflow
- Cytoculture® Cytotoxic Safety Cabinet
- Pharmacon™ Downflow Booth
- Evidence Drying Cabinet
- Esco Garment Storage Cabinet
- Esco Glassware Hoods
- Laminar Flow Horizontal/Vertical Trolley
- Laminar Flow Straddle Unit

#### Cross Contamination Facility Integrated Barrier

- Cleanroom Air Showers
- Infinity® Air Shower Pass Box
- Infinity® Cleanroom Transfer Hatch
- Infinity® Pass Boxes
- Soft Capsule® Soft Wall Cleanroom
- Dynamic Passboxes and Dynamic Floor Label Hatches
- Esco BioVap™ Biodecontamination System
- BioPass™ Pass Through
- Esco Sputum Booth

#### Isolation Containment

- Streamline® Compounding Isolators (SCI)
- Isoclean® Healthcare Platform Isolator (HPI)
- Containment Barrier Isolator (CBI)
- General Processing Platform Isolator (GPPI)
- Weighing and Dispensing Containment Isolator (WDCI)
- Aseptic Containment Isolator (ACTI)
- Turbulent Flow Aseptic (Grade A) Isolator (TFAI)
- Technetium Dispensing Isolators
- Blood Cell Labeling Isolators
- Open and Closed Restricted Barrier Access Systems (RABS)
- Cell Processing Isolator (CPI)
- Filling Line Isolator

#### Ventilation Containment

- Ventilated Balance Enclosure

#### Certification



UL 61010 (for HPI)



DFB G2



TFAI™



BioPass™



VBE



GPPI

BioVap™  
Biodecon System



Esco TaPestle Rx is the division of Esco Healthcare that specializes in pharmacy compounding, providing world class facility brought in line with international cGMP standards.

Esco TaPestle Rx is built on the legacy of two pharmacists whose oath is to consider the welfare of humanity and the relief of human suffering. Our primary concern is always fundamental in shaping our vision of elevating healthcare by providing access to life sciences tools in developing countries.

### PRODUCTS

#### Pharmacy Compounding Equipment

- Cytoculture® Cytotoxic Safety Cabinet
- Streamline® Compounding Isolator
- Isoclean® Healthcare Platform Isolator
- Containment Barrier Isolator - Unidirectional Model
- Ventilated Balance Enclosure

#### Radiopharmaceuticals Handling

- Frontier® Radioisotope Fume Hood
- Lead-lined Biosafety Cabinet
- Technetium Dispensing Isolator
- GMP-compliant Radioisotope Dispensing Isolator



SCI



HPI



CBI



VBE



Frontier® Radioisotope  
Fume Hood



Lead-lined Biological  
Safety Cabinet



Technetium Dispensing  
Isolator



GMP-compliant Radioisotope  
Dispensing Isolator



Esco VaccixCell has a wide range of bioprocessing tools from adherent bioreactors, stirred tank bioreactors, consumables, cell-line specific culture medium, and more. These products are perfect for research and development up to commercial or manufacturing scale for several applications such as vaccine production, cell/gene therapy, cellular agriculture, and more. As part of the bioprocess equipment manufacturers worldwide, Esco Vaccixcell aims to provide solutions for easy access to advanced therapeutics and high-quality biologics for all nations.

The division's core technology, "Tide Motion", works as a linearly scalable bioreactor system that provides 3D adherent cell culture environment for high cell and/or product yield.

**Esco VaccixCell Products**

**Bioreactors and Fermenters**

- CelXrocker™ (CXR)
- CelCradle™ (CC)
- CelCradle X® (CCX)
- TideXcell® (TXL)
- VXL™ Hybrid
- BioXcell®
- StirCradle™
- StirCradle™ PRO

**Harvesting System**

- CelShaker™
- CelCradle X® Semi-Automated Harvester (CCX-SAH)
- TideXcell® Harvesting System (TXLHS)

**Cell Culture Monitoring, Media and Consumables**

- Super Plus™
- Plus™ Vero
- Plus™ MDCK
- Plus™ MDCK II
- BioNOC™ II macrocarriers
- BioMESH® macrocarriers
- GlucCell™ Glucose Monitoring System
- Crystal Violet Dye (CVD) Nuclear Count Kit

**Filling Line Equipment**

- Traditional Filling Line

**Integrated Solutions**

- Cell Processing Isolator (CPI)
- Cell Processing Center





## Assisted Reproductive Technology (ART) Equipment

### Embryo Culture



MIRI® II



MIRI®



Mini MIRI® Dry



Mini MIRI® Humidity



CCL-IVF



MIRI® TL



CultureCoin®

### Sample Handling



MAW



MAW-Class II



LVG



AVT-1



TCR

### Quality Control



MIRI® GA



SAFE Sens

### Introduction

Esco Medical is one of the business units of the Esco Lifesciences Group, which provides innovative technological solutions for fertility clinics and laboratories. Esco Medical is the leading manufacturer and innovator of high quality IVF equipment that are designed in Denmark and mostly made in the EU.

### Embryo Incubators

- Time-Lapse Embryo Incubator  
Brand Available: MIRI® TL Embryo Incubator
- Multiroom Incubator Incubator  
Brand Available: MIRI® Multiroom Incubator, MIRI® II-12 Multiroom Incubator
- Compact Benchtop Incubators  
Brand Available: Mini MIRI® Dry Incubator, Mini MIRI® Humidity Incubator
- CO<sub>2</sub> Incubator  
Brand Available: CelCulture® CO<sub>2</sub> Incubator

### Certifications



for CelCulture®



(for MIRI® TL and MIRI®)



CE

### Sample Handling

- Workstations  
Brand Available: Multi-Zone ART Workstations (MAW)
- Class II Workstations  
Brand Available: Multi-Zone ART Workstations (MAW) Class II
- Anti-Vibration Table  
Brand Available: AVT-1
- Table Centrifuge Refrigerated  
Brand Available: Versati™

### Other IVF accessories

- CO<sub>2</sub> / O<sub>2</sub> and Temperature Validation unit  
Brand Available: MIRI® GA
- Stereo Zoom Microscope  
Brand Available: Esco Stereomicroscope MS-1
- Continuous pH monitoring tool  
Brand Available: SAFE Sens\*

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



# After-Sales Services

## Parts Availability

Whenever service is needed and parts are required, minimizing downtime is a critical objective. Statistical usage analysis helps Esco to predict parts life, permitting Esco to manage logistics and stage proper inventories around the world. The combination of predictive maintenance, historical data, and geospecific proximity assures our customers that parts and labor are available whenever service is scheduled through the local sales organization.

## Registration, Documentation, and Instruction

Quality control at Esco extends from research and development through engineering, manufacturing, shipment, delivery, and customer feedback. Esco maintains an aggressive program to encourage warranty card registration by mail, email or online submission so that we know where Esco products are located and how they are being used. Rest assured that all information disclosed from warranty registrations will be kept confidential. All Esco products include unique serial numbers for identification. Documentation for all performance tests is archived and maintained for customer reference with all the backup procedures.

## Online Technical Information

Site preparation instructions are useful before product arrival and installation. Installation and start-up manuals, operation manuals and quick reference guides are available anytime from the Esco resources online.

## NSF International Accreditations and TÜV Nord Certification

The National Sanitation Foundation (NSF) International is an independent, non-profit organization that provides standards development, product certification, auditing, education, and risk management for public health and the environment.

The NSF mark is your assurance that the product complies with all the standard requirements, tested by one of the most respected independent certification organizations in existence today. NSF conducts periodic unannounced inspections and product testing to verify that the product continues to comply with the standard. It is valued by consumers, manufacturers, retailers, and regulatory agencies worldwide.

TÜV NORD GS certification has been helping to minimize risks and hence ensure maximum safety and quality. TÜV NORD's recognised certifications stand worldwide for an exemplary level of safety and make a valuable contribution to the continuing improvement of products and processes.

Esco has passed the stringent requirements during testing and inspection and has given the TÜV NORD approval mark that confirms compliance of the product with the provisions of the Product and Equipment Safety Act as regards health and safety.

In line with Esco's commitment in providing world-class services worldwide, Esco as a manufacturer feels the impact of providing the best after-sales service through our competent service engineers. Thus, Esco is the only manufacturer in the world with the most number of NSF accredited certifiers across the globe. In addition, Esco enhances the capacity to the highest quality of service by providing TÜV NORD GS certified service engineers with expertise to ensure timely preventive and corrective maintenance of the laboratory equipment. These accreditations make Esco not only an **Excellent Standards COmpany** but also an **Excellent Service COmpany**, which exemplifies Esco's collective quest of being an **Eternally Successful COmpany**.

## References and Links

To know more about the services we offer, visit [www.escolifesciences.com](http://www.escolifesciences.com)



# ESCO LIFESCIENCES GROUP

42 LOCATIONS IN 21 COUNTRIES ALL OVER THE WORLD



- Global Offices
- Licensee
- Distributors
- Factories
- R&D Centers
- Regional Distribution Centers

Follow us on social media, download our apps,  
and scan the QR code for more info.



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Esco Lifesciences



Esco Lifesciences

# ESCO

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