

Guide to Esco Products and Services 2017-2018

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



ESCO
WORLD CLASS. WORLDWIDE.

Guide to Esco Products and Services

Table of Contents

Corporate Profile	3
Tradition of Quality and Innovation	4
Research and Development	7
Products and Applications	8
Sample Preparation	
Biological Safety Cabinets.....	9
Laminar Flow Clean Benches.....	10
Lab Animal Research Workstations.....	11
Laboratory Centrifuges.....	12
Sample Cultivation	
CO ₂ and CO ₂ / O ₂ Incubators.....	13
Laboratory Shakers.....	14
Sample Storage	
Upright Ultra-low Temperature Freezers.....	15
Laboratory Refrigerators and Freezers.....	16
Sample Protection	
Remote Monitoring, Datalogging, Programming Software.....	17
Intelligent Remote Monitoring Application Protocol.....	18
Wireless Monitoring System.....	19
Sample Tracking System.....	20
Chemical Research	
Ductless Fume Hoods.....	21
Laboratory Fume Hoods.....	22
General Equipment	
Laboratory Thermostatic Products.....	23
Sample Analysis	
PCR Thermal Cyclers	
Conventional Thermal Cyclers, Real-time PCR Systems.....	24
PCR Sample Handling	
Microplate Shakers, PCR Cabinets.....	25
Esco Healthcare Equipment	
Esco Pharma.....	26
TaPestle Rx.....	27
VacciXcell.....	28
Assisted Reproductive Technology (ART) Equipment	29
After Sales Services	30
Esco Gives You Better Choices	31
Esco Global Network	32



Welcome to Esco

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



Esco represents innovation and forward-thinking designs, which are all coupled with the highest standard quality since 1978. The Esco Group of Companies remains dedicated in delivering innovative solutions for the clinical, life sciences, research, industrial, laboratory, pharmaceutical and IVF community. With the most extensive product line in the industry, our products have passed a number of international standards and certifications. Esco operates under ISO 9001, ISO 14001 and ISO 13485.

Availability and Accessibility. Headquartered in Singapore, manufacturing facilities are located in Asia and Europe. R&D is conducted worldwide spanning the US, Europe and Asia. Sales, services and marketing subsidiaries are located in 12 major markets including the US, UK, Japan, China and India. Our regional distribution centers are located in Bangladesh, China, Denmark, Germany, Hong Kong, India, Indonesia, Italy, Japan, Lithuania, Malaysia, Philippines, Russia, Singapore, South Africa, South Korea, Russia, Taiwan, Thailand, UAE, United Kingdom, USA, and Vietnam. Because of our worldwide presence, you can be sure that Esco is within your reach.

High Quality, Reliable and Dependable. Our customers are confident that only with the best quality, reliable, and dependable products, can they be sure of the accuracy of their research and procedures. Cross functional teams from Esco Production, R&D, Quality Assurance and Senior Management, are regularly assembled to review and implement areas for improvement.

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

Esco Cares for Your Comfort. Comfort of our users is ensured by building ergonomic designs and by reducing the noise levels of the units.

Esco Cares for the Environment. One in every four of Esco's employees is involved in Research and Development and a number of these evaluate new components and/or designs to produce energy efficient equipment. Being GREEN is more than just modifying the parts we use to produce a new energy efficient technology, it also embodies the every aspect of the company.

Customer Service and Support. Our service does not stop once purchase has been made. Esco gives on-time customer service and offers end-user seminars, service training, preventive maintenance, provides educational materials and informative videos.

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

ESCO

WORLD CLASS. WORLDWIDE.

Tradition of Quality & Innovation

1978

Esco manufactures the first laminar flow clean bench; 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® New CO₂ incubator.



2011

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



Esco launches CelCulture® CO₂ Incubator with Suppressed O₂ 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® Multi-room 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



Esco launches Fertilisafe™ IVF Workstation



Miri® Time-Lapse incubator



2014

Esco launches CelCulture® CO₂ Incubator (Direct Heat Air-Jacketed, Water Jacketed and With Cooling System)



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™ Shaker



Esco launches CelSafe® CO₂ Incubators



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

Creation of Esco Ventures as the strategic investment arm of Esco Group, focused on early stage investments in life sciences tools and medical technology start ups with innovative technologies.

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



ESCO

WORLD CLASS. WORLDWIDE.

2016

Introduced Esco Healthcare - the latest 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. VacxiXcell - 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. TaPestleRx - specializes in healthcare & laboratory design and construction.

2016

Esco launches SCI - Streamline® Compounding Isolators (Total Exhaust)-Compounding Aseptic Containment Isolator



Esco launches HPI Gen3 - Isoclean® Healthcare Platform Isolator



Esco launches CBI - Containment Barrier Isolator



Esco launches BioNoc™ - Cell Culture Matrix / Carrier



Esco launches GlucCell® - Glucose Monitoring System



Esco launches CelCradle™ - Upstream Process / Bioreactor



Esco launches TideCell™ - Fermenter / Stirred Tank Bioreactor (Lab Scale)



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



Esco launches CPI - Cradle PRO Isolator



Esco launches APPI - Advanced Processing Platform Isolator



Esco launches Sampling Rigid Isolator



Esco launches VBE - Ventilated Balance Enclosure



Esco launches EDVC / EDHC - Evidence Drying Cabinet



Esco launches Mobile Biovap™



Esco launches Mini Miri® Humidified Benchtop Incubator



Esco launches Fertilisafe™ Workstation with Miri® Chambers



Esco launches SCE - Semi Closed Environment

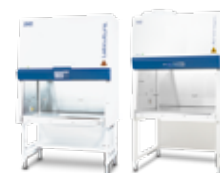


2017

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



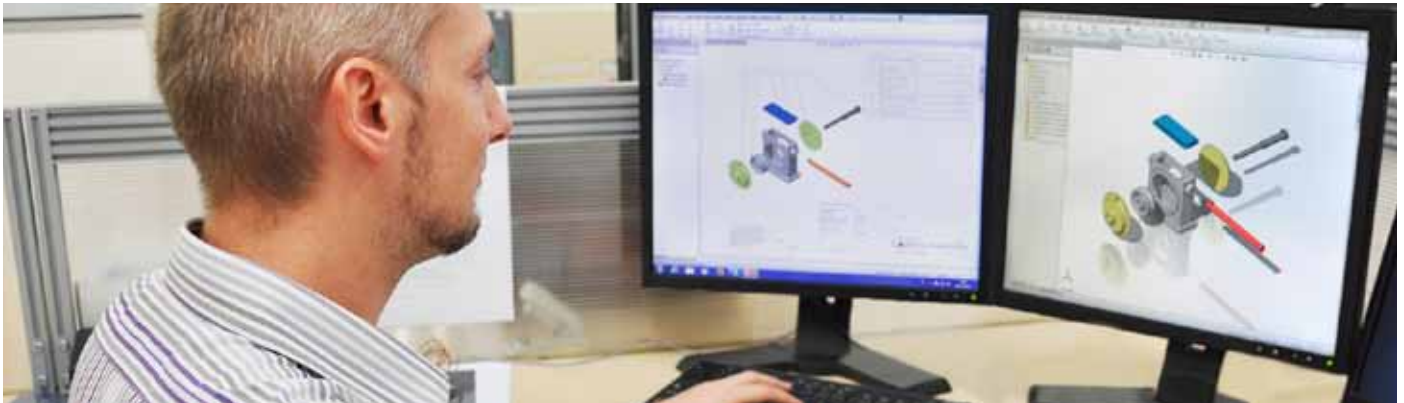
Esco launches Labculture® and Airstream® AB2 Gen 3 Class II Type B2 Biological Safety Cabinets with Sentinel™ Touchscreen controller and certified under UL and NSF



Esco launches Orbicult™ Incubator Stackable Shaker (ISS2)



Research and Development



An integral part of our business planning effort is based on managing a robust research and development program in Singapore, China, Europe and the USA, balanced against an investment in service support, training and customer education. Compared to industry averages, Esco invests a significant percentage of annual revenues in research and development. As a result of our investment, and with continuous feedback and idea evaluation among our research, global sales, marketing, purchasing and manufacturing teams; Esco products reflect the best contemporary designs in performance, ergonomics and customer satisfaction.

- Engineers located in technology centers in Singapore, China, Europe and the USA
- Growing patent portfolio
- Core competencies:
 - Embedded system, sensor and software development and integration
 - Containment engineering for biohazards, chemical vapors and hazardous powders
 - Decontamination cycle development
 - Computational fluid dynamics
 - Temperature, humidity, gas and environmental control
 - Imaging systems
 - Wireless and remote monitoring
 - cGMP laboratory design

Production and Quality



Esco's manufacturing advantage stems from our extensive degree of vertical integration, enabled by our world-leading high throughput. All processes, with a few exceptions, are performed in-house. This allows us to achieve quality and reliability that is truly world class.

- Incoming materials inspection and warehousing
- CNC-controlled sheet metal fabrication
- Full range of welding including MIG, TIG, Spot, and Robotic welding
- Environment-friendly powder coating lines
- Electromechanical final product assembly
- Electrical / electronics sub-assembly
- Multi-step electrical and physical performance testing
- Independent quality control at each step in the production cycle
- Microbiology, chemistry, containment test labs
- Instruments calibration laboratory

Esco's focus on quality and timeliness is relentless. Continuous improvement is a mantra. Cross-functional teams from Esco Production, R&D, Quality Assurance, Senior Management, are regularly assembled to review and implement areas for improvement.

Every year, Esco manufacturing site is audited by certification bodies like ISO 9001, ISO 14001, ISO 13485, NSF International, and TUV Nord Germany. Our machines safety, workplace safety, and environmental safety are also audited by different government institutions.

All of the third party audits help our customer to ensure Esco manufacturing sites consistency of producing quality products and continual improvement.

Products and Application

Life Sciences Laboratory Equipment

Sample Preparation

- Class I Biological Safety Cabinets
- Class II Type A2 Biological Safety Cabinets
- Class II Type B1 Biological Safety Cabinets
- Class II Type B2 Biological Safety Cabinets
- Class III Biological Safety Cabinets
- Horizontal Laminar Flow Clean Benches
- Vertical Laminar Flow Clean Benches
- Laboratory Animal Research Workstations
- Laboratory Centrifuges

Sample Cultivation

- CO₂ Incubators, Direct Heat Air-Jacketed
- CO₂ Incubators with Cooling System
- CO₂ Incubators with Stainless Steel Exterior
- CO₂ Incubators (Water-Jacketed)
- Laboratory Shakers

Sample Analysis

PCR Thermal Cyclers

- Conventional Thermal Cyclers
- Real-time PCR Systems

PCR Sample Handling

- Microplate Shakers
- PCR Cabinets

Sample Storage & Sample Protection Solutions

- Ultra-low Temperature Freezers
- Lab Refrigerators and Freezers
- Sample Database Management Software
- Intelligent Remote Monitoring Application Protocol
- Remote Monitoring, Datalogging, Programming Software
- Wireless Monitoring System

Chemical Research

- Ductless Fume Hoods
- Laboratory Fume Hoods
- Fume Hood Airflow Monitors
- Exhaust Blowers
- Powder Weighing Balance Enclosures

General Equipment

Laboratory Thermostatic Products

- Laboratory Oven
- Laboratory Incubator
- Refrigerated Incubator
- Natural Convection Incubator

Forensic Sciences

- Evidence Drying Cabinet

Medical / IVF Equipment

Controlled Embryo Handling

- IVF Workstation
 - Stereo Zoom Microscope
- Anti-vibration Table

Safe Embryo Culture

- Benchtop Multi-room Embryo Incubators
- CO₂ Incubators

Innovative Time Lapse Imaging

- Time-Lapse Embryo Incubator

Accurate Quality Control

- CO₂ / O₂ Temperature Validation Unit

Healthcare

Esco Pharma Products

Airflow Containment Products

- Pharmacon® Downflow Booths
- Ceiling Laminar Airflow Units
- Laminar Flow Horizontal Trolley
- Laminar Flow Vertical Trolley
- Enterprise® Laminar Flow Straddle Units
- Garment Storage Cabinet
- Cytotoxic Safety Cabinets

Isolation Containment

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

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 BioPass™ Pass Through

Ventilation Containment

- Ventilated Balance Enclosure
- Extraction Hoods/Enclosures
- Local Exhaust Ventilation Systems

VacciXcell Products

Bioreactors and Fermenters

- CelCradle™
- TideCell®
- StirCradle™
- StirCradle™-Pro
- VacciXcell™ Hybrid bioreactor

Cell Culture Monitoring, Media and Consumables

- Super Plus™
- Plus™ Vero
- Plus™ MDCK
- Plus™ MDCK II
- BioNOC™ II macrocarriers
- GlucCell® Glucose Monitoring System
- CVD Kit

Filling Line Equipment

- AseptiCell®
- Traditional Filling Line

Integrated Solutions

- Cell Processing Isolator
- Cell Processing Center

TaPestle Rx Products and Services

PRODUCTS

Pharmacy Automation and Compounding Supply

- Compounding Pharmacy Isolators (SCI, HPI, CBI, GPPI)
- Safety Cabinets and Enclosures (Class II BSC, VBE, LFC)
- Radiopharmacy Hoods and Isolators
- Automated IV Compounding System*
- Aseptic Filling Systems

**Southeast Asian Markets only*

Healthcare and Laboratory Construction Components

- Prefabricated Walls (Airecell®)
- Prefabricated Containerized Facility (Prefab™)
- Series Ceiling Systems
- Hygienic/Hermetic Door Systems
- Surgical Scrub Sinks
- Vinyl Tiles and Epoxy
- Laboratory Fit-outs
 - Worktops
 - Frames
 - Specialty Storage cabinets
 - Service Spines & Reagent Shelving

SERVICES

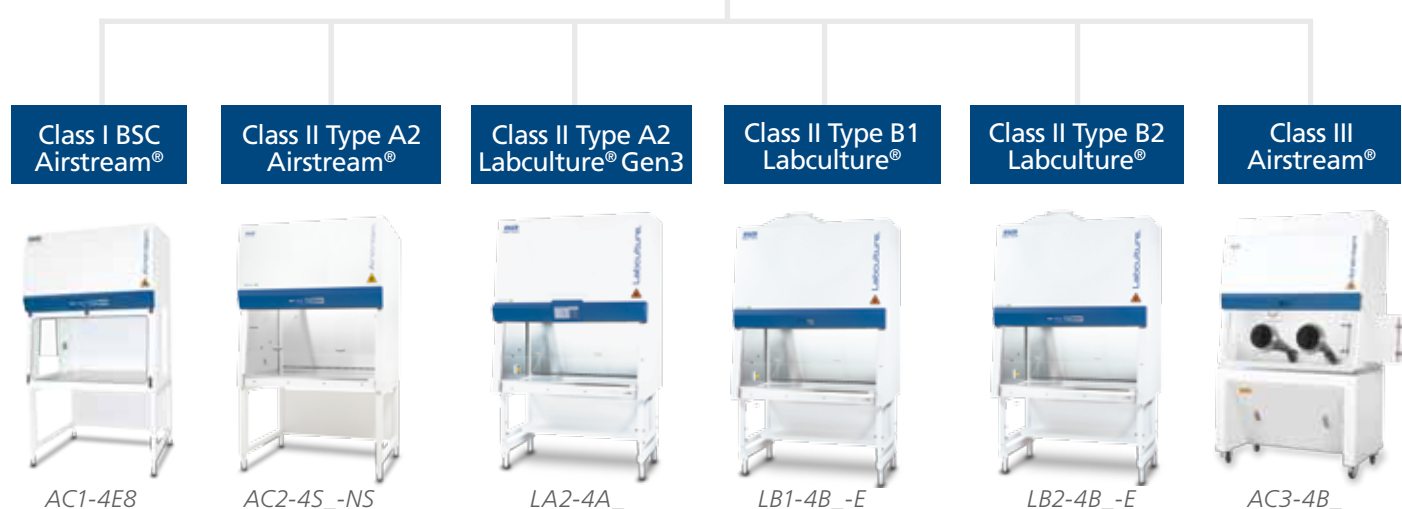
- Conceptualization
- Planning
- Procurement
- Installation

FACILITY DESIGNS

- Process Architecture
- Biocontainment/Biosafety
- Pharmacy Compounding/Nuclear Medicine
- Cleanroom, Vaccine and Cell Processing
- Laboratory
- Containerized Facility
- ART/IVF
- Cold Chain

Life Science | Sample Preparation

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.

*most models

- Large performance envelope
- Ergonomic design
- Low noise
- Easy to clean

Product Lines

- Class I, Biological Safety Cabinets

* Brand Available: Airstream®

- Class II, Type A2 Biological Safety Cabinets

* Brands Available: Airstream®, Airstream® Plus, Airstream® Reliant, Labculture®, Labculture® Reliant, NordicSafe®, Biostream®

- Class II, Type B1 Biological Safety Cabinets

* Brand Available: Labculture®

- Class II Type B2 Biological Safety Cabinets

*Brands Available: Labculture®, Airstream®

- Class II, Type B2 Biological Safety Cabinets Gen3

* Brands Available: Labculture®, Airstream®

- Class III Biological Safety Cabinets

*Brand Available: Airstream®

- Lead-Shielded Class II Biological Safety Cabinets

*Brand Available: Cytoculture®

Certifications



NSF / ANSI 49



JIS K3800



EN 12469



SANS 12469



UL 61010



國家食品藥品監督管理總局



TÜV NORD, Germany



WORLD CLASS. WORLDWIDE.



Laminar Flow Clean Benches



Horizontal Laminar Flow Clean Benches



LHG-4_G-F_

LHS-4_G-F_

LHG-4DS-F_

Vertical Laminar Flow Clean Benches



LVS-4_G-F_

LVG-4_G-F_

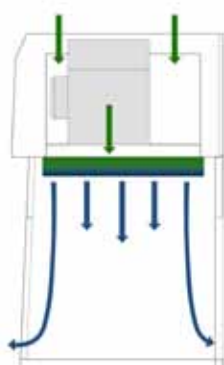
ACB-4A_

Introduction

Esco is an industry leader in the development of professional quality laminar flow clean benches 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.

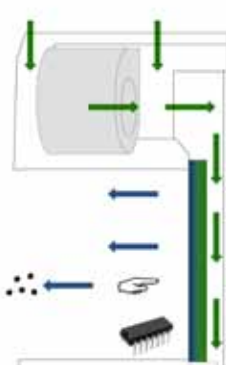
Our selection of Vertical, Horizontal and Specialty clean benches offers a variety of choices for installations where high quality construction is essential. Our clean benches are aerodynamically engineered and use only premium quality ULPA and HEPA filters with integrated motor/blower assemblies for 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 Clean Benches
- Horizontal Laminar Flow Clean Benches, for Plant Tissue Culture
- Reverse Horizontal Flow Cabinets
- Vertical Laminar Flow Clean Benches

Certification



UL 61010

Lab Animal Research Workstations

Dual Access Animal Containment Workstations



VDA-4A_

Bedding Disposal Animal Containment Workstations



VBD-4A_

Universal Animal Containment Workstations



VA2-4A_-E

Introduction

Animal research, cage changing and bedding disposal procedures are now simpler, safer and more productive with the Esco range of VIVA® Animal Containment 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® lab animal research products 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

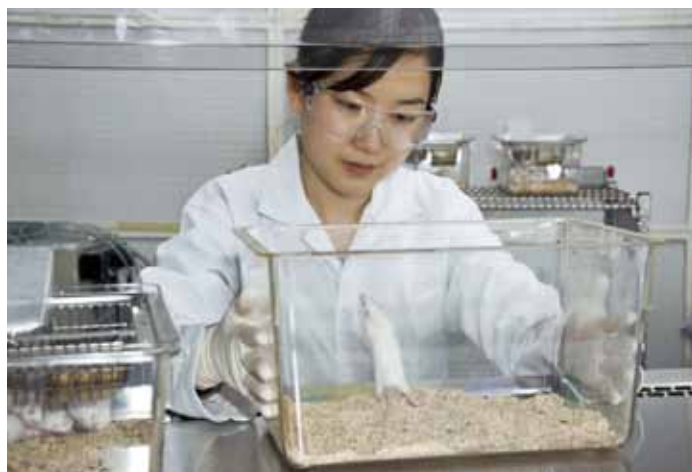
- Universal Animal Containment Workstations
- Dual Access Animal Containment Workstations
- Bedding Disposal Animal Containment Workstations

*Brand Available: VIVA®

Certification



UL 61010



ESCO

WORLD CLASS. WORLDWIDE.

Laboratory Centrifuges

Micro Centrifuges

Tabletop Centrifuges



MCV-88-__

MCR-88-__



TCR-1500-__

TCV-1500-__

Introduction

Esco proudly introduces our new family member the Versati™ centrifuges, equipped with maintenance-free motors, robust mechanism and intelligent Ecourage™ microprocessor control system, that offers extreme reliability and safety. Covering micro centrifuge and low-to-high speed general-purpose centrifuge, with variety of rotors, adapters and accessories, the Versati™ has a strong versatility to fit all your application needs and suit a variety of consumable tubes, strips and plates.

Features

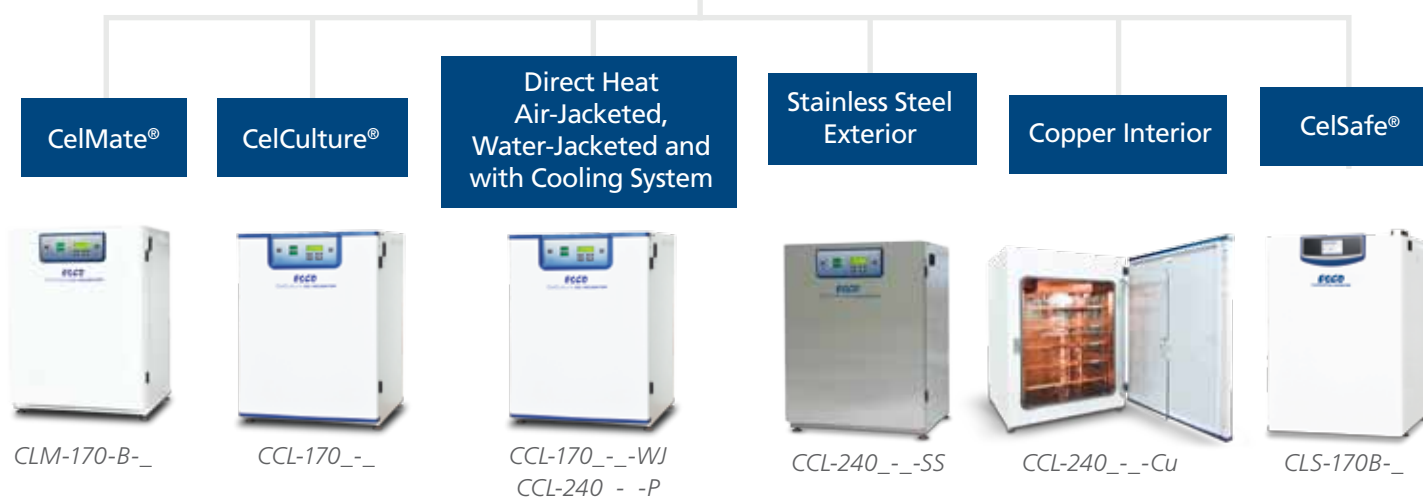
- Distinct Control Panel and Intelligent Ecourage™ Microprocessor Control System
- Genuine-Protect™ Safety Lid Lock
- V-balance™ Weight Imbalance Protection
- Smartdrive™ Rotor Auto Recognition
- Diverse Choices of Rotor (swing out & Fixed Angle Rotors)
- Integrated Design of Interior Centrifuge Chamber
- Temperature range from -20°C to 40°C with 1°C increments (only Refrigerated Unit)
- Maintenance-free, Brushless Motor
- CFC-free refrigeration system
- Emergency Switch
- Polished and Practical Appearance
- Max speed up to 16000 rpm (RCF=24381)
- Storage of up to 99 runs including rotor
- Noise level < 63 dBA (depend on rotor)

Product Line

- 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™

CO₂ and CO₂ / O₂ Incubators



Introduction

Esco CO₂ Incubators offer the best temperature and CO₂ control providing superior protection for your cell cultures. Sleek, reliable and intuitive, the Esco CO₂ incubators provide comprehensive sample protection that brings your scientific dreams one step closer to reality.

Features

- **Precise Parameter Control**
 - Best uniformity and control among competition, which means samples are evenly heated
 - Fast CO₂, 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 CO₂ incubators are now equipped with infrared CO₂ sensor for enhanced precision and stability
 - Water-jacketed models can hold the chamber temperature much longer when power is lost
- **Robust Contamination Control for Optimum Protection**
 - SteriSafe™ ULPA Filtration System
 - Validated SwiftCon™ 90°C Moist Heat Decontamination Cycle (CelMate® and CelCulture®)
 - 200°C High Heat Sterilization Cycle (CelSafe®)
 - Filtered Gas Injection Lines
 - ISOCIDE™ Antimicrobial Coating
- **Provide maximum safeguarding of cell cultures via Voyager software system**
 - It is a centralized monitoring and control system for your laboratory which provides extra protection for your samples.
 - With alarms to alert user when exceeding predefined parameter limits
- **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 16 Mb built-in flash memory guarantees long-term storage of data

Product Lines

- CO₂ Incubators
*Brand Available: CelMate®
- CO₂ and CO₂ / O₂ Incubators
 - Direct Heat Air-Jacketed
 - Water-Jacketed
 - With Cooling System
 - Stainless Steel Exterior
 - Copper Interior
 *Brand Available: CelCulture®
- CO₂ and CO₂/O₂ Incubators
 - Touchscreen Display
 - Up to 200°C Dry Heat Sterilization
 - Direct Heat Air-Jacketed
 - Single-piece rib cage design for easy cleaning
 - Active Humidification option
 - Security Lock feature
 - USB data collection feature and Graph functions
 - High temperature resistant CO₂, O₂, and Humidity (no need to remove during decontamination)
 *Brand Available: CelSafe®

Certifications



ESCO

WORLD CLASS. WORLDWIDE.

Life Science | Sample Cultivation



Laboratory Shakers

Benchtop Ambient Shaker



AS1-NC-19

Benchtop Incubator Shaker



IBS-R-19

Stackable Incubator Shaker



ISS2

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 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 broader temperature and speed control range
- Intelligent CO₂, O₂ & humidity control technology with accuracy of up to 1% (ISS2 only).
- **DualSafe™:** Innovative moisture heat & air flow UV decontamination method, maximizes the decontamination effects to protect your sensitive cells from contaminations (ISS2-CRD only).
- **Programmable Design:** Unit's memory can store up to 15 (for IBS and ISS2) 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 most suitable solution for your applications.

Product Lines

- Benchtop Ambient Shaker: for Ambient Shaking Application
- Benchtop Incubator Shaker: for Constant Temperature Shaking Application
- Stackable Incubator Shaker: for Maximum Performance Shaking Application.

*Brand Available: OrbiCult™

Upright Ultra-low Temperature Freezers

Silver Controller



UUS-714A-_-SS

Gold Controller



UUS-714B-_-SS

Platinum Controller



UUS-714C-_-5D

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 insuring 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 insure the highest level of performance and protection of your samples.

Features

- Excellent vial capacity with a minimal footprint
- Three controllers are available in every size to meet every customer needs
- Touchscreen user interface (for Aalto Platinum Controller)
- **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
 - PROtect Redundant Wireless Sample Monitoring System
- **GSM Modem:** a device that alerts the user through SMS in case of sample threatening alarms; USB port to download datalog files; Buck and Boost system function for voltage stabilization (for Aalto Gold and Platinum Controller)
- Email alerts via Wi-Fi (for Aalto Platinum Controller) and network cable in case of sample threatening alarms
- Unique predictive failure management and freezer health monitoring system (for Aalto Platinum Controller)
- LCO₂ Back-up system (for all controllers)
- SampleTracker inventory management system to track all stored samples (for Aalto Platinum Controller)
- iRMAP™ allows for an additional optional Esco service to allow Esco to monitor freezers from a remote location (for Aalto Platinum Controller)

Product Lines

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

*Brand Available: Lexicon® II

Certification



ESCO
WORLD CLASS. WORLDWIDE.

Laboratory Refrigerators and Freezers

Laboratory Refrigerators



HR1-140S-__

HR1-140T-__

Laboratory Freezers



HF2-400T-__

HF2-1500S-__

Laboratory Combination Refrigerators and Freezers



HC6-400S-__

HC6-700S-__

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**
 - Superior forced-air design instead of regular cold wall for both refrigerators and freezers.
 - Rapid cool down and very fast recovery due to fan assistance.
 - Fast temperature equilibration; superior sample protection.
 - Intelligent automatic defrost to minimize temperature changes during ice defrost
- **Sample Safety**
 - Door lock provides additional security for expensive samples and reagents from unauthorized users.
 - External surfaces are powder-coated with Esco ISOCIDE™ to eliminate 99.9% of surface bacteria within 24 hours of exposure.
 - Triple-pane glass doors for refrigerator models to easily locate needed samples or reagents with the door closed, preventing risks. Triple-pane doors provide superior insulation compared to any other glass door technology.
 - Door will automatically close under 90° when released to maintain temperature and to protect samples.
 - Audible 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
- Door automatically closes when released to maintain temperature and to protect samples

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



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, CO₂, 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. CO₂ 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.)

System Requirements

- Operating system: Windows 2000, XP, 7, and Windows 2003 Server. (English)
- Memory: 512 MB
- Hard disk space: 1 GB
- Interface: USB/RS232
- Prerequisite Software: .NET Framework 2.0 (included) Windows Installer 3.1 (included)



Compatible Equipment

- Lexicon® – Ultra-Low Temperature Freezer v. 1 (Silver, Gold, and Platinum controller)
- CelCulture® – CO₂ Incubator (CCL) v. 1.3.1
- CelMate® – CO₂ 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.

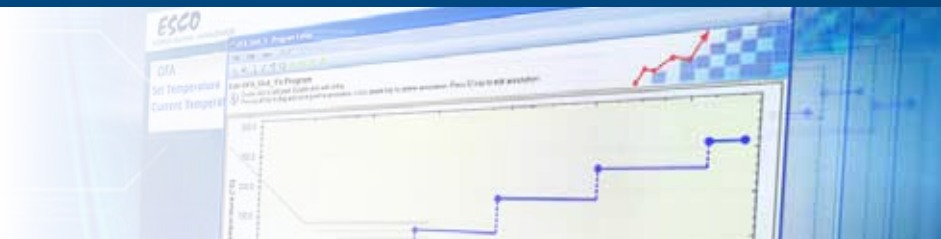
Features

- 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, Gold, and Platinum controller)
- CelCulture® – CO₂ Incubator (CCL) v. 1.3.1
- CelMate® – CO₂ 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

Introduction

Esco PROtect monitoring system includes radio frequency recorders which can be connected to any brands of freezer, cold storage system and temperature controlled equipment. These recorders automatically send data to a central server to monitor temperature and other parameters and send real-time alert to users in case of severe failure.

Esco PROtect complies with quality assurance procedures:

ISO 17025 and ISO 15189 norm, GMP and audit trail traceability for conformance to 21 CFR Part 11

Features

A. Real Time Monitoring System

- Wireless Technology that protects your samples 24/7 with continuous data logging function and immediate alarm notifications
- Centralize monitoring for all your equipment (any brands and any models):
 - Temperature for refrigerators, freezers, cold chambers, cryogenic tanks and -80°C freezers
 - Temperature and CO₂ for ovens/incubators
 - Temperature and humidity for climatic chamber, ambient area
- Measurement and recording of physical parameters such as temperature, CO₂ and humidity
- Direct reading on the display
- In using the radio frequency, the recorder has longer battery lifetime and transmission distance.
- Configurable alarm using SMS and email notification
- Continuous measurement even during facility power failure situations.

B. Simple and Cost Effective

- Fast Installation, commissioning and maintenance
- Can centrally monitor integrity of samples even during a power outage or electronic failure of refrigerator, freezer, incubator, oven, etc.
- Accurate and efficient compared to manual data readings
- Reduce labor cost for manual data readings since manual data readings are less accurate, less reliable and time consuming. This saves you time and money
- Readily accessible through the display or monitoring software thru PC
- Multi-site installation
- Interchangeable digital probes with embedded memory to facilitate maintenance procedures
- Modern and eco-friendly

C. Traceability and Security – Quality Assurance

- Local regulations or recommendations within Quality Management Programs

System Requirements

• PROtect Server

- Computer Architecture: 32 bit and 64 bit
- OS: Windows 2000, XP, Vista, Win 7 and Windows 2003-2008 Server
- RAM: 3 GB (minimum)
- HD: 250 GB capacity or higher
- Video Card: VGA compatible 1280 X 1024 32 bit (minimum Windows Installer 3.1 (included))

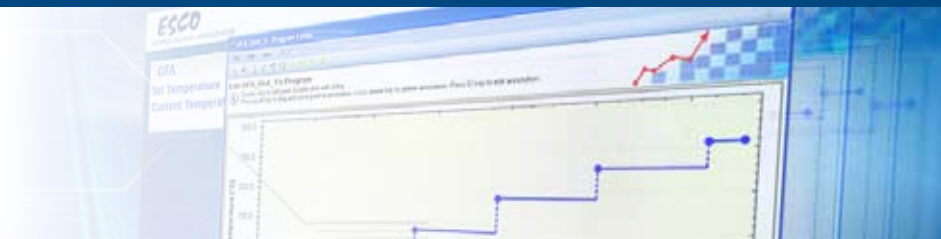
• PROtect Client

- Computer Architecture: 32 bit and 64 bit
- OS: Windows 2000, XP, Vista, Win 7 and Windows 2003-2008 Server
- RAM: 2 GB (minimum)
- HD: 1 GB capacity or higher
- Video Card: VGA compatible 1280 X 1024 32 bit (minimum)



ESCO

WORLD CLASS. WORLDWIDE.



Sample Tracking System

SampleTracker

Introduction

Esco SampleTracker is a comprehensive Biosample Inventory Management solution. The Software tracks the sample management activities throughout its life cycle. The software scope covers all the features and functionalities required for the Sample Inventory Management and Tracking for all sizes of laboratories, managing different types of samples and having various types of storages. Flexibility in configuration of laboratories and sample attributes is one of the unique characteristics of SampleTracker.

SampleTracker automatically generates a unique identification number for each sample, which makes it easy for users to trace the sample as and when required.

Compatible Esco Equipment : Esco Aalto Platinum controller freezer

Key Features:

- Sample Definition and Configuration
- Laboratory Equipment Configuration and Management
- User Management and Roles and Privileges Management
- Sample operations such as:
 - Check In
 - Sample Aliquoting
 - Sample assignment to storage location
 - Sample movement within storage location
 - Sample Check Out
- Sample shipment to outside of facility
- Sample disposal
- Barcode label creation
- Freezer Controller Communication Service
- Query Builder
- Report
- Backup and Restore
- Data Import and Export
- Audit Trail and Signature points configuration

Benefits:

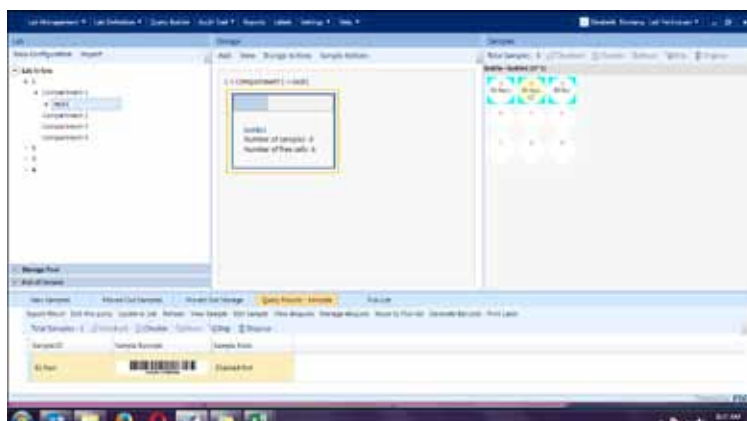
- Intuitive User Interface, Feature-rich and easy-to-use.
- Flexible configuration
- 21 CFR Part 11 compliant software
- System monitors to observe internal functions
- Backup option for database
- User defined dedicated access rights for individual users
- Robust reporting tools
- Communication with Freezer

SampleTracker Client:

- Operating system: Windows XP, 7, 8, and Windows 2003 and 2008 Server. (English)
- Memory: 1 GB
- Hard disk space: 1 GB
- Prerequisite Software: .NET Framework 4.0 (included)

SampleTracker Server:

- Operating system: Windows XP, 7, 8, and Windows 2003 and 2008 Server. (English)
- Memory: 4 GB
- Hard disk space: 4 GB
- Prerequisite Software: .NET Framework 4.0 (included) SQL Server 2008 R2 Express (included) or higher
- Communication with Freezer



Life Science | Chemical Research



Ductless Fume Hoods



Ascent® Opti Ductless Fume Hoods

Ascent® Max Ductless Fume Hoods

Specialized Ductless Fume Hoods



SPD-4B_



ADC-4B_



ADC-4D_



ADC-4C_



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 110-1995, 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™
ForMax™
TitraMax™

Certifications



ASHRAE 110



AFNOR NF X 15-203



EN 14175-3



UL 61010

BS 7258

BS 7989



WORLD CLASS. WORLDWIDE.



Laboratory Fume Hoods



General Purpose Fume Hoods



EFH



EFD

High Performance Fume Hood



EFA

Full Polypropylene Fume Hood



PPH

Specialized High Performance Fume Hoods



EFP



EFI



EFA-M



EFF

Introduction

Esco Laboratory Fume Hoods are among the best in the world. They comply with international standards ASHRAE 110-1995, BS 7258, and EN 14175-3. They are also tested for fire, electrical, and mechanical hazards under the fume hood standard UL 1805.

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

- Exhaust Blowers

- Fume Hood Airflow Monitors

*Brand Available: Sentinel™ XL

Certifications



ASHRAE 110



EN 14175



UL 1805

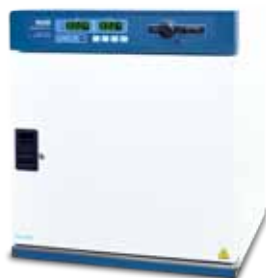
Laboratory Thermostatic Products

Laboratory Oven



OFA-110-__

Forced Convection Laboratory Incubator



IFA-110-__

Natural Convection Laboratory Incubator



INA-110-__

Refrigerated Incubator



IFC-110-__

Introduction

The Esco world class laboratory incubators and ovens for thermal convection applications. 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

For Forced Convection Ovens, Incubators and Refrigerated Incubators

- Solaris™ 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

For Natural Convection Incubators

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

Product Lines

- Forced Convection Laboratory Ovens
- Forced Convection Laboratory Incubators
- Natural Convection Laboratory Incubators
- Refrigerated Incubators
- Stainless Steel Options for all sizes of Ovens, Incubators & Refrigerated Incubators

*Brand Available: Isotherm®

PCR Thermal Cyclers

Conventional Thermal Cyclers



Conventional Thermal Cyclers

Introduction

Esco offers a choice of Conventional Thermal Cycler models designed to meet critical requirements for almost all kinds of PCR variants such as Touchdown PCR, High-throughput PCR, *in situ* PCR, 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

Product Line

- Conventional PCR Thermal Cycler

* Brands Available: Aeris™, Swift™

Real-time PCR Systems



Real-time PCR Systems

Introduction

The Esco Swift™ Spectrum PCR machines come in 48- and 96-well formats and have full functionality. Notably, these are open systems designed for use with most commonly available dyes that are suitable to applications such as diagnostics, research, and quarantine product testing. The included software is very powerful and seamlessly performs absolute or relative quantification, and even SNP analysis.

Features

- Best uniformity and accuracy ensure reliability and excellent performance
- Open system with wide selection of excitation and emission wavelength options
- User-friendly with three language choices (English, Chinese and Spanish) on the control system
- Industry-leading warranty for peace of mind

Product Lines

- Spectrum 48 Real-time PCR Thermal Cyclers
- Spectrum 96 Real-time PCR Thermal Cyclers

* Brand Available: Swift™

Microplate Shaker



*ProvoCell™ Shaking
Micro Incubator*

PCR Cabinet



Airstream® PCR-4A_

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
- Fully programmable even during running, with speed setting up to 1500 rpm
- Clear large Vacuum Fluorescent Display (VFD) and User-friendly interface
- Contamination-free metal blocks
- Small footprint
- Can be used inside safety cabinets
- Orbital movement
- Excellent rotation stability
- Optimized mixing
- Durable

Product Line

- Microplate Shaker/Incubator

*Brand Available: ProvoCell™

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®

Esco Healthcare is the latest Group Division in the Esco Group of companies. Collectively, we enable 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 PLATFORM
PHARMA SPECIALIST.

Esco Pharma is a leading manufacturer of containment and isolation systems with a global footprint spanning US, Europe and Asia. We provide specialist services, equipment packages, and process solutions from core platform products, leading to improved protection of operators, reduction of cross-contamination and more efficient processing, thereby, directly and indirectly, advancing occupational health and human healthcare. Globally, Esco Pharma's scope of activity revolves around Biotherapeutics, Niche Manufacturing, and QC/QA.

Esco provides standardized platforms with built-in configurations, which enables users to modify operational parameters in situ, based on process demands and need not to commit to operational parameters upfront.

Esco Pharma Products

Airflow Containment Products

- Pharmacon® Downflow Booths
- Ceiling Laminar Airflow Units
- Laminar Flow Horizontal Trolley
- Laminar Flow Vertical Trolley
- Enterprise® Laminar Flow Straddle Units
- Garment Storage Cabinet
- Cytotoxic Safety Cabinets

Isolation Containment

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

Ventilation Containment

- Ventilated Balance Enclosure
- Extraction Hoods/Enclosures
- Local Exhaust Ventilation Systems

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 BioPass™ Pass Through



DFB G2



ACTI



VBE



BioPass™
Pass Through



HPI-G3



TaPestle Rx is the division of Esco Healthcare that specializes in healthcare and laboratory design and construction, providing world class facility brought in line with international cGMP standards.

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 Automation and Compounding Supply

- Compounding Pharmacy Isolators (SCI, HPI, CBI, GPPI)
- Safety Cabinets and Enclosures (Class II BSC, VBE, LFC)
- Radiopharmacy Hoods and Isolators
- Automated IV Compounding System*
- Aseptic Filling Systems

*Southeast Asian Markets only

Healthcare and Laboratory Construction Components

- Prefabricated Walls (Airecell®)
- Prefabricated Containerized Facility (Prefab™)
- Series Ceiling Systems
- Hygienic/Hermetic Door Systems
- Surgical Scrub Sinks
- Vinyl Tiles and Epoxy
- Laboratory Fit-outs
 - Worktops
 - Frames
 - Specialty Storage cabinets
 - Service Spines & Reagent Shelving

FACILITY DESIGNS

- Process Architecture
- Biocontainment/Biosafety
- Pharmacy Compounding/Nuclear Medicine
- Cleanroom, Vaccine and Cell Processing
- Laboratory
- Containerized Facility
- ART/IVF
- Cold Chain

SERVICES

- Conceptualization
- Planning
- Procurement
- Installation



WORLD CLASS. WORLDWIDE.



VACCI XCELL
ADHERENT BIOPROCESSING SPECIALIST

Vaccixcell is the bioprocessing division of Esco Healthcare, particularly specializing in adherent bioprocessing. Vaccixcell provides design and manufacture of single-use, multiple-use, and hybrid bioreactor solutions for the vaccine, cell therapy and biologics industry. Vaccixcell envisions a world of vaccine self-sufficiency and easy access to advanced therapeutics and high quality biologics for all nations. Vaccixcell is Esco's social entrepreneurship, in line with the group's vision to provide enabling technologies to make human lives safer and healthier.

Vaccixcell's core technology is the tide motion system, which is the only bioreactor system in the world that has true linear scalability and can scale up to 5000 L!

Vaccixcell Products

Bioreactors and Fermenters

- CelCradle™
- TideCell®
- StirCradle™
- StirCradle™-Pro
- Vaccixcell™ Hybrid Bioreactor

Cell Culture Monitoring, Media and Consumables

- Super Plus™
- Plus™ Vero
- Plus™ MDCK
- Plus™ MDCK II
- BioNOC™ II macrocarriers
- GlucCell® Glucose Monitoring System
- CVD Kit

Filling Line Equipment

- Asepticell®
- Traditional Filling Line

Integrated Solutions

- CradlePro-Iso
- Cell Processing Center



CelCradle™



TideCell® 5L



Vaccixcell™ Hybrid Bioreactor



CradlePro-Iso



StirCradle™



GlucCell®



Plus™ Vero



Plus™ MDCK



Super Plus™



Assisted Reproductive Technology (ART) Equipment

Embryo Incubators



Controlled Embryo Handling



IVF Accessories



Introduction

Esco Medical is one of the divisions of the Esco Group of companies, which targets 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

- Benchtop Multi-Room Incubator

Brand Available: Miri® Benchtop Multi-room Incubator

- Humidified Benchtop Incubator

Brand Available: Mini Miri® Benchtop Incubator

- CO₂ Incubator

Brand Available: CelCulture® CO₂ Incubator

Controlled Embryo Handling

- IVF Workstation

Brand Available: Fertilisafe™ IVF Workstation

- Semi Controlled Environment

Brands Available: SCE IVF and SCE ICSI

- Anti-Vibration Table

Brand Available: AVT-1

Other IVF accessories

- CO₂ / O₂ and Temperature Validation unit

Brand Available: Miri® GA

- CO₂ / O₂ Gas Validation Unit

Brand Available: Miri® GA Mini

- 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)

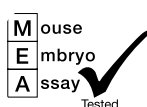
Certification



(for CelCulture)



(for Miri® TL and Miri®)



ESCO

WORLD CLASS. WORLDWIDE.

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.

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. An interactive online LiveSupport™ concierge center accessible through the Esco website offers extended hours of operation. LiveSupport™ permits users to dialogue directly with Esco personnel.

NSF International Accreditations

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.

In line with Esco's commitment in providing world class services worldwide, Esco has a large contingent of NSF accredited certifiers which makes 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**.

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.

References and Links

For more information, you can visit Esco at www.escoglobal.com

Whatever your needs are,
**we serve it to you
on a silver platter.**





Esco Gives You Better Choices

With the widest range of laboratory, medical, and pharmaceutical products available worldwide

- Airflow Containment
- ART / IVF Equipment
- Barrier Isolation System
- Biological Safety Cabinets
- Bioreactors and Fermenters
- CO₂ Incubators
- Compounding Isolators
- Cross Contamination Facility Integrated Barrier
- Ductless Fume Hoods
- Evidence Drying Cabinet
- Freeze Dryer
- Isolation Containment
- Lab Animal Research Products
- Laboratory Fume Hoods
- Lab Refrigerators and Freezers
- Laboratory Ovens and Incubators
- Laboratory Shakers
- Laminar Flow Cabinets
- PCR Cabinets
- PCR Thermal Cyclers
- Powder Weighing Balance Enclosures
- Radiopharmacy Isolators
- Sample Protection Solutions
- Ultra-low Temperature Freezer



Winner, SPBA - Maybank Regional Brands
2014



Winner, SPBA - Maybank Regional Brands
2015



Winner, SPBA - Regional Brands
2016

**Singapore Prestige
Brand Award (SPBA)
HALL OF FAME**

Inducted October, 2016

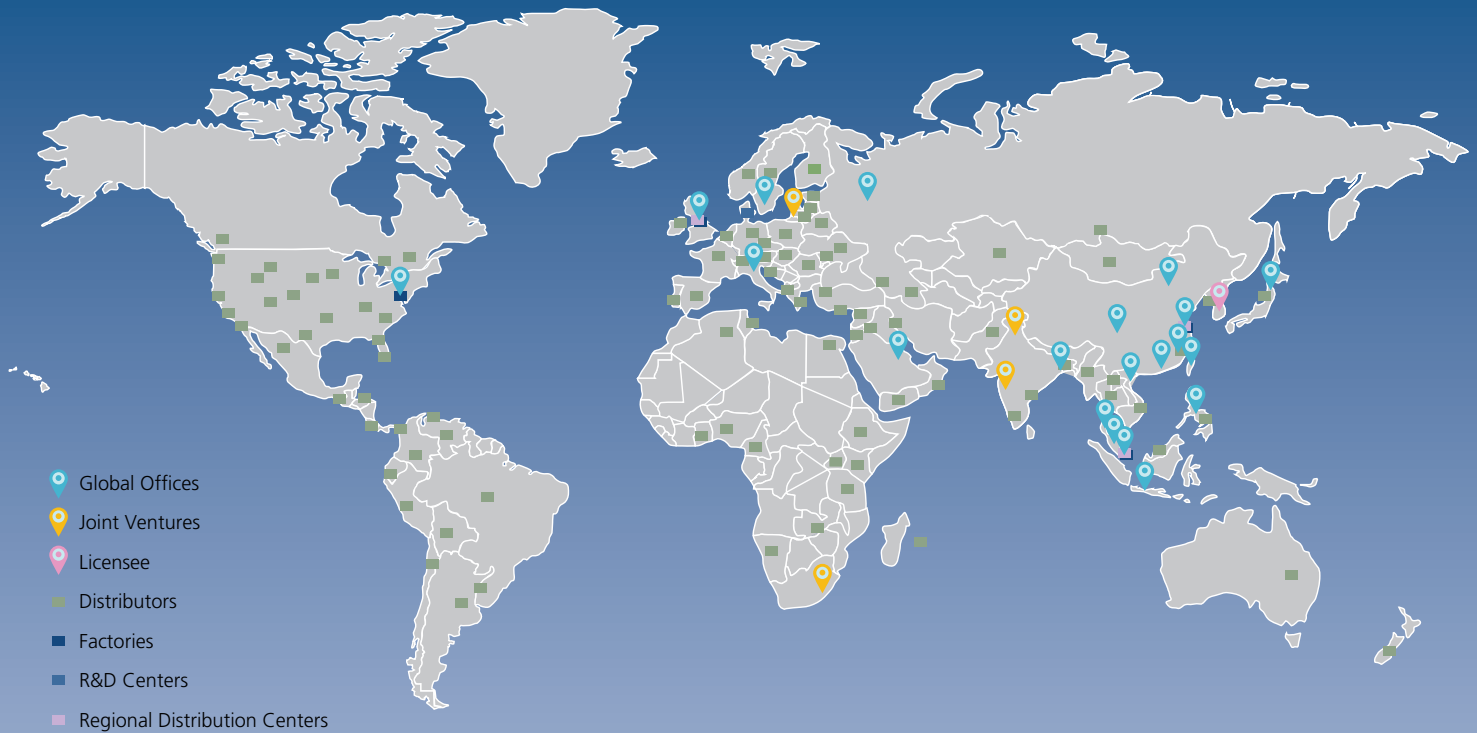
Our induction as **Overall Winner, SPBA - Regional Brands in three consecutive years - 2014, 2015 and 2016** is just one of our many other accolades testifying to the world class quality, reliability and fame of our products and services which are recognized by our customers throughout the world.

Esco Micro Pte. Ltd.

21 Changi South Street 1 • Singapore 486777 • Tel +65 6542 0833 • Fax +65 6542 6920 • mail@escoglobal.com • www.escoglobal.com

Esco Global Offices: Bangladesh | China | Denmark | Germany | Hong Kong | India | Indonesia | Italy | Japan | Lithuania | Malaysia | Philippines | Russia | Singapore | South Africa | South Korea | Taiwan | Thailand | UAE | United Kingdom | USA | Vietnam

ESCO GLOBAL NETWORK



Join us on Social Media and Download our Apps!



ESCO

WORLD CLASS. WORLDWIDE.

Esco Micro Pte. Ltd. • 21 Changi South Street 1 • Singapore 486 777
Tel +65 6542 0833 • Fax +65 6542 6920 • mail@escoglobal.com
www.escoglobal.com

Esco Technologies, Inc. • 903 Sheehy Drive, Suite F, Horsham, PA 19044, USA
Toll-Free USA and Canada 1-877-479-3726 • Tel 215-441-9661 • Fax 484-698-7757
eti.sales@escoglobal.com • www.escolifesciences.us

Esco Global Offices: Bangladesh | China | Denmark | Hong Kong | India | Indonesia | Italy | Japan | Lithuania | Malaysia | Philippines | Singapore | South Africa | South Korea | Russia | Taiwan | Thailand | UAE | United Kingdom | USA | Vietnam

