



Clinical Genomics Industry





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.



OVERVIEW

Genomic research allows scientists to have a grasp of one's genetic information. Studying the human genome helps provide data about the risks of developing a disease or the likely response to treatment. This knowledge helps researchers characterize and diagnose rare and inherited diseases for the development of new techniques for treating and preventing them.

To aid the research on clinical genomics and advance the efficiency of DNA sequencing, Esco Lifesciences offers a variety of reliable equipment that also promotes laboratory safety.

Sample Preparation

- Centrifuge
- Laboratory Oven

Sample Handling

- Class II Biological Safety Cabinet

Amplification and Detection

- Automated Nucleic Acid Extraction System
- Microplate Shaker/Incubator
- PCR Cabinet
- PCR Thermal Cycler

Storage and Preservation

- Laboratory Refrigerator
- Laboratory Freezer
- Ultra-low Temperature Freezer





Versati™ Centrifuge

Features

- Distinct Control Panel and Intelligent Versati™ Microprocessor Control System
- Genuine-Protect™ Safety Lid Lock
- V-balance™ Weight Imbalance Protection
- Smartdrive™ Rotor Auto Recognition
- Diverse Choices of Rotor (Swing-out and Fixed-angle Rotors)
- Temperature range from -20°C to 40°C with 1°C increments (Refrigerated models only)
- Maintenance-free, Brushless Motor
- CFC-free refrigeration system
- Emergency Switch
- Storage of up to 99 programs



Introduction

Versati™ centrifuges are equipped with maintenance-free motors, robust mechanism, and intelligent Versati™ microprocessor control system that offers extreme reliability and safety. Versati™ has a strong 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.

Versatile and Outstanding Features

- **Compact Design** - Small footprint and curved design ensure comfortable loading and unloading of samples and cleaning of the unit.
- **Incredible Flexibility** - Wide choice of easy and interchangeable rotors meets all your application needs. Huge selection of adapters allows centrifugation of practically all commercially available tubes.
- **High Temperature Ramp Rate** - Compressor in Versati™ centrifuges has strong power which allows fast cooling rate. The time cost can be as low as 10 mins when temperature decreases from room temperature to 4°C.
- **Fast Pre-cooling** - Versati™ centrifuges provide fast pre-cooling function that is maintained even when centrifuge is not in use. This feature is useful if the samples are temperature-sensitive.
- **Overspeed Protection** - Equipped with speed detection system, Versati™ centrifuges show the actual speed on the screen. Once the speed exceeds the safety range, the alarm will sound off and rotation is halted.
- **Over Temperature Protection** - The unit will stop running once an over temperature is detected in the chamber, rotor, and frequency converter. This provides comprehensive protection which prolong the life span of Versati™ centrifuges.
- **Aerosol-tight and Autoclavable** - High-quality, extremely robust aluminum lid of rotor allows aerosol-tight centrifugation. Rotor, buckets, lids, and adapters are autoclavable (20 min, 121°C) to ensure sterility of the centrifuge environment.

General Accessories for Versati™ Tabletop Centrifuge



Swing-bucket Rotor

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



Microtiter Plate Rotor

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



Fixed-angle Rotor

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



Aerosol-tight Fixed-angle Rotor

This TÜV Nord Certified Bioseal Rotor used for 1.5/2.0 mL tubes is also available in tabletop centrifuge models. Adapters are used to run 0.5 mL and 0.2 mL / 0.4 mL PCR tubes.



Fixed-angle Rotor

This aluminum fixed-angle rotor can hold twenty 10 mL dome tubes. This rotor has no available adapter.



Fixed-angle Rotor

Aluminum rotor for ten 50 mL conical tubes. It has available adapters for 15 mL conical and dome tubes.

Note: There are a total of 11 rotor options for TCVI TCR and 47 available adapters for both models.



OFA-110

Isotherm®

Forced Convection Laboratory Oven

Features

- Ventiflow™ Ventilation System – Forced air convection design
- Pre-heat Chamber Technology – 4-zone heated air jacket
- SmartSense™ Microprocessor PID Control Technology
- Isocide™ Antimicrobial Powder Coating
- Door Keylock
- Multiple Redundant Over-Temperature Protection System
- Superior Insulation

Available sizes: 32 L, 54 L, 110 L, 170L, and 240 L

ISOCIDE™



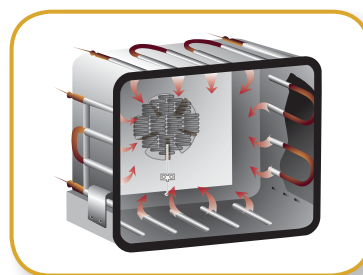
Introduction

Esco Isotherm® laboratory ovens are designed with a forced-convection ventilation system, intuitive interface, microprocessor PID control with programming options, a 4-zone heated air jacket, and ergonomic features to provide quality and convenience.



Ventiflow™ Ventilation System

- Forced convection design produces faster temperature response rates, improves uniformity, and reduces fluctuation
- Low energy consumption and low noise level



Pre-heat Chamber Technology

- 4-zone heated air jacket ensures stable heating and maximum temperature uniformity in the chamber
- 2-point door seal and eccentric hinge ensures maximum gasket



Multiple Redundant Over-temperature Protection System

- Over-all temperature protection meets DIN 12880 Class 3.1 standards



SmartSense™ Microprocessor PID Control Technology

- Connected to an instrument-grade precision platinum temperature probe
- Ensures fast ramp time. Prevents overshoot and ensures stable temperature once set point is achieved

Clinical Genomics Industry

OPTIONS AND ACCESSORIES (for Isotherm® products)



Wall bracket (only for 32 L and 54 L chambers)

- Accommodates desired operating heights.



Reversed Door Swing (Factory-installed)



Voyager Software Kit

- Esco Voyager is a PC-based software package developed for remote monitoring, datalogging and programming/device configuration of Esco controlled environment laboratory equipment.



Support stands

- Fixed height at 715 mm (28")



Additional Shelf

- Two shelves are included for 32 L, 54 L, 110 L, 170 L and 240 L models as standard. Additional shelves may be ordered.



Optional Stainless Steel Exterior

- Robust construction and corrosion-resistant surface that meets pharmaceutical and clinical laboratory requirements.



AC2-4S_NS

Airstream®

Class II Biological Safety Cabinets

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

Introduction

Esco's Biological Safety Cabinet is a primary engineering control which provides user protection against biohazards as the inflow air creates airflow barrier preventing accidental release of biohazards from the cabinet's working area and at the same time provides product protection with the airflow barrier inside the work zone which is on the other hand created by the downflow air.

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.

Basic Principle

Ambient air is pulled through front grille to create inflow, without going through the work surface. Inflow is joined by half of the downflow, to create front air curtain that is fine-tuned to create a large performance envelope. The combined air stream travels through the back air column towards the blower. Approximately 1/3 of the air in the common plenum is exhausted through the ULPA filter to the room. The remaining 2/3 of the air is passed through the downflow ULPA filter and into the work area as a vertical laminar flow air to create ISO Class 3 work surface and prevents cross contamination.

Near the work surface, the downflow splits. About half goes to the front grille, and half goes to the rear grille. A small portion enters the side capture zones to prevent dead air corners. The design was optimized to give large performance envelope, that provides operator and product protection at wide Inflow and Downflow variation from the Nominal point.



NSF / ANSI 49



UL 61010



国家食品药品监督管理局



TÜV NORD, Germany



JIS K3800



EN 12469



SANS 12469



STANDARDS Australia



Green Product

Airstream® Class II Biological Safety Cabinets

The World's Most Energy-Efficient, Quiet, and Compact Biosafety Cabinet

Aside from providing protection for you and your environment, Airstream® Class II biological safety cabinet provides protection for your microbiological samples.

We understand your BSC requirements.

Airstream® offers the most complete Class II cabinet range, with 9 models to choose from.



AC2-4E8



AC2-4D8



AC2-4G8



AC2-4S8



AC2-CN
(Available only for China)



AC2-4S9-NS



AR2-4S9
(Available only for USA)



AC2-4E8-TU



AC2-4S8-TU

OPTIONS AND ACCESSORIES



Support Stands

- Fixed height, with levelling feet or casters
- Telescoping height, with levelling feet or casters
- Electronic adjustable height, with levelling feet or casters



Electrical Outlet

- European/ Worldwide Style, available in Type C, D, E, F, G, H, I
- North American style



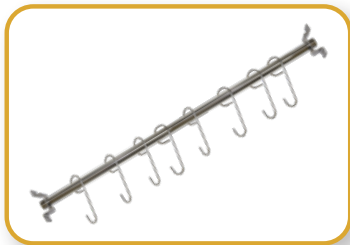
Germicidal UV Lamp

- Emission of 253.7 nanometers for most efficient decontamination
- Lamp is positioned away from operator's line-of-sight for safety and proper exposure to interior surfaces



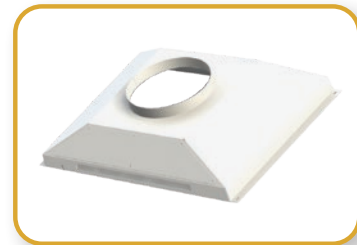
Service Fixtures

- European/ Worldwide style
- North American style
- Electronic adjustable height, with levelling feet or casters



IV Bars with Hooks

- Stainless steel construction, Max Load 6 kg (13 lbs)
- Available for all standard Esco cabinets



Exhaust Accessories

- Air-tight damper and thimble exhaust collar
- SEAS (Sentinel Exhaust Alarm System)*
- Anti-blow back valve
- Tri-safe exhaust collar with alarm



Ergonomic Foot Rest

- Angled, helps maintain proper posture
- Easily adjustable from 3" to 11" in 1" increment, 20" wide
- Anti-skid coating, chemical-resistant finish



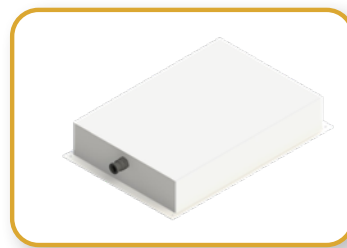
Ergonomic Lab Chair

- Laboratory-grade construction, meets Class 100 cleanliness;
- Alcohol-resistant PVC materials
- Adjustable height 395-490 mm (15.6"-19.3")



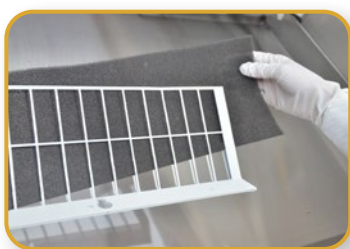
PVC Arm Rest

- Chemically treated, improves operator comfort, easy to clean



VHP Port

- VHP Out Top Box for Cabinet with or without exhaust collar installed



Pre-filter

- Pre-filter on paper catch



Formalin Vaporizer

- Dependable construction and innovative design
- Specifically designed for safety cabinet decontamination with automatic control

**Type A Biological Safety Cabinets with thimble exhaust collar NOT equipped with alarm system can no longer be certified by an NSF-Accredited certifier.*

Other Accessories

Accessories	Description
Decontamination bag	<ul style="list-style-type: none"> • Plastic decontamination bag for formalin decontamination on all BSC
Port	<ul style="list-style-type: none"> • Airtight cable port, installed on right side wall • Holds 1 to 4 cables
Microscope Viewing Pouch	<ul style="list-style-type: none"> • Factory-installed • Mounting and viewing pouch integrated into sash
IQ/OQ	<ul style="list-style-type: none"> • Installation Qualification and Operational Qualification Protocol

Swift™ Extract

Automated Nucleic Acid Extraction System

Features

- High Extraction Efficiency
- High Temperature Accuracy
- User-friendly Interface
- Versatile Blocks and Rods
- Standard Programs



SWT-EXT-32

Introduction

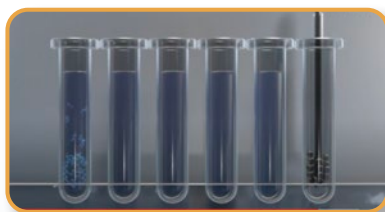
Spin-column based and manual extraction systems require repetitive pipetting steps which are prone to human errors causing deviations in the extraction process. This could affect patient management due to possible false positives and negatives. Automated nucleic acid extraction systems provide robust solution for more consistent and reliable nucleic acid extracts.

Esco Swift™ Extract Automated Nucleic Acid Extraction system provides an easy monitoring of extraction protocols and shows a real-time display of the running protocol through its user-friendly interface. It is also designed with safety in mind as it features an 8-strip consumable for placement on rods to prevent cross-contamination and UV light for decontamination.

Basic Principle

Nucleic acids such as DNA or RNA bind to microscopic magnetic beads found in the accompanying nucleic extraction kit*. A series of steps are involved to (1) lyse the cells containing the nucleic acids, (2) wash away impurities, and (3) release the extracted DNA or RNA from being bound to the magnetic beads in the kit.

*For use with compatible extraction kit



High Extract Efficiency

- Collection efficiency of up to 98% compared to average market efficiency of 95%.



High Temperature Accuracy

- Deep-well heat block accurate heating of wells for effective lysing of cells.



Versatile Blocks and Rods

- Blocks allow for upgrading to higher throughput.



User-friendly Interface and Standard Programs

- Real-time display of running program for easy monitoring of extraction protocol.
- Capable of storing programs for easy setup of routing protocols.

Clinical Genomics Industry

ProvoCell™

Microplate Shaker/Incubator

Features

- Programmable and smooth rotation up to 1500 rpm
- Easy to clean and interchangeable blocks
- High temperature accuracy
- User-friendly interface
- Small footprint



PV-PVC + PV-BLC-1

Introduction

Esco ProvoCell™ Microplate Shaker/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 technology that permits rapid switching between heating and cooling with accurate temperature control and block uniformity. It can be used on the benchtop or in a biological safety or laminar flow cabinet without the contamination risk associated with conventional water- or liquid-cooling baths.

OPTION: Choose from a selection of mixing blocks accessories

7 Interchangeable Blocks



PV-BLC-1
1.5 mL x 40 (Standard)



PV-BLC-2
0.2 mL x 96



PV-BLC-3
0.5 mL x 54



PV-BLC-4
15 mm x 24



PV-BLC-5
96 wells ELISA board



PV-BLC-6
0.5 mL x 26 + 1.5 mL x 24



PV-BLC-7
2 mL x 40

Provocell™ II

Microplate Shaker/Incubator

Features

- Programmable and smooth rotation up to 3000 rpm
- Easy to clean and interchangeable blocks
- High temperature accuracy
- User-friendly interface
- Small footprint



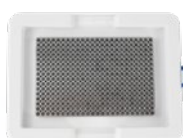
PV-PVC2 + PV-BLC2-2

Introduction

Molecular biology methods including those for diagnostic testing processes involves a variety of protocols that requires heating, mixing, and shaking steps for small-volume in tubes and microplates. Esco Provocell™ II Microplate Shaker/Incubator features a programmable and smooth rotation up to 3000 rpm with a user-friendly interface and easy to clean interchangeable blocks. Microplate shaking incubators are designed to provide a variety of mixing applications for accurate incubation of reactions and extraction of nucleic acids and proteins.

OPTION: Choose the suitable block based on your application

9 Interchangeable Blocks



PV-BLC2-1
384 Wells



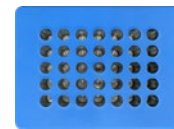
PV-BLC2-2
0.2 mL x 96



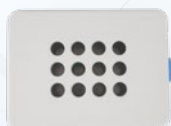
PV-BLC2-3
0.5 mL x 54



PV-BLC2-4
1.5 mL x 35



PV-BLC2-5
2.0 mL x 35



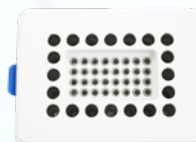
PV-BLC2-6
5.0 mL x 12



PV-BLC2-7
15 mL x 12



PV-BLC2-8
Up to 50 mL x 4



PV-BLC2-9
1.5 mL x 20 + 0.2 mL x 32



AERIS-BG096

Aeris™

Conventional PCR Thermal Cycler

Features

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



Introduction

Esco offers a choice of Conventional Thermal Cycler designed to meet critical requirements for all kinds of PCR processes, such as Gradient PCR, Touch down PCR, High throughput PCR, *in situ* PCR and so on, using a variety of PCR tubes, strips, plates and slides. Designed to meet critical requirements for pathogen detection and quantification.

The Aeris™ thermal cycler offers five interchangeable blocks designed to meet critical requirements for different applications. It comes with an intuitive touch screen to deliver easy-to-use programming; AeonStar™ Peltier is qualified to deliver outstanding and precise performance and unique IsoHeat™ temperature control technology delivering high heating and cooling rates with excellent temperature accuracy and uniformity. SmartDrive™ automatic block recognition increases user convenience. AerisLine™ software enables the remote control of up to 30 individual units via one PC.

OPTION: Choose the appropriate block for your PCR application

Five Interchangeable Blocks



AERIS-BG096 G-96 WELL

Applicable consumables: 0.2 mL tube, 96-well microplate, 12 x 8 strips, 8 x 12 strips



AERIS-BG384 G-384 WELL

Applicable consumables: 384-well microplate



AERIS-B4830 48 x 0.2 mL + 30 x 0.5 mL WELL

Applicable consumables: 0.2 mL tubes, 0.5 mL tubes, 4 x 12 strips



AERIS-B4076 4 IN SITU SLIDES

For In Situ PCR

Applicable consumables: 4 slides *in situ*



AERIS-BD048 D-48 X 0.2 mL

Two in one! Two independent experiments may be carried out at the same time.

Applicable consumables: 0.2 mL tubes, 6 x 8 strips



SWT-MIP-0.2

Swift™ MiniPro®

Conventional PCR Thermal Cycler

Features

- **Superior Performance**
 - Excellent Temperature Uniformity
 - High Temperature Precision
 - Outstanding Ramp Rate
- **Convenience**
 - Compact Footprint
 - Convenient Setup, Fast Run
 - Friendly Interface
 - Adjustable Hot Lid
 - Adjustable Ramp Rate
- **Stability**



Introduction

The Esco Swift™ MiniPro® thermal cycler is a low cost personal thermal cycler with a compact footprint, suitable for a variety of critical experimental applications, such as Touch Down PCR, Time Release PCR and others. The Swift™ MiniPro® thermal cycler uses advanced peltier technology to achieve precise temperature control and fast ramp rates with minimal over- and under-shoot for process speed and accuracy.

OPTION: Choose the type of block that comes with the main unit depending on your sample requirements



Block 1
24 x 0.2 mL

Applicable consumables: 0.2 mL tubes, 3 x 8 strips



Block 1
18 x 0.5 mL

Applicable consumables: 0.5 mL tubes



PCR-3A

Airstream®

Polymerase Chain Reaction Cabinets

Features

- Pre-filter and main HEPA filter with a typical efficiency of >99.99% at 0.3 microns
- Protection against cross-contamination within the main chamber
- Built-in UV lamp with timer
- Sentinel™ Silver Microprocessor Controller
- Isocide™ Antimicrobial Powder Coating



ISOCIDE™

Introduction

An ideal PCR laboratory should consist of three areas, each isolated from each other. Reagents should be prepared in the reagent preparation area and transferred to the sample preparation area, through a pass box or inside closed containers. After preparation of the final reaction mix, the tubes should be transferred to the amplification area, again through a pass box or in a closed container. The thermal cycler where the PCR amplification takes place is located in the amplification area. The Airstream® PCR cabinet provides DNA and RNA-contaminant free environment through the use of HEPA filters and UV decontamination system. The cabinet can be installed in the reagent preparation area of the PCR laboratory.

More Benefits

Easy-to-Use

- Timer is easy to adjust
- UV hour meter monitors bulb life
- Automatic decontamination for 0.9 m (3') and 1.2 m (4') models
 - Close sash: UV turns on automatically for decontamination
 - Open sash: airflow activates automatically

Safety

- UV interlock prevents UV exposure
- UL recognized electrical components
- UV filtering sash and side walls

Two-in-One

Can be used as a regular laminar flow cabinet and UV can also be used for decontamination of regular lab items.

Ergonomics

- Low noise
- Angled front
- Glass sides
- Curved work surface front edge
- Powder-coated rear wall eliminates reflections
- Vertical airflow minimizes direct airflow towards operator, causing dry eyes



Streamline®

Polymerase Chain Reaction Cabinets

Features

- HEPA-filtered Laminar Flow
- ISO Class 3 Work zone
- Equipped with German-made ebm-papst® motors with external rotor design
- Isocide™ Antimicrobial Powder Coating
- UV Decontamination Technology

ISOCIDE™

Introduction

The Streamline® Polymerase Chain Reaction (PCR) Cabinet provides a controlled environment for performing PCR amplification experiments. Through HEPA-filtered airflow and UV decontamination of surfaces, DNA and RNA contamination of PCR reactions are reduced ensuring the validity of the results.

OPTIONS AND ACCESSORIES



Support Stand with Caster Wheels (SPC)

- For 0.6 m (2'), 0.9 m (3') and 1.2 m (4') models
- Available in two standard heights: 711mm (28.0") or 860mm (34.0")
- Durable polyurethane caster wheels with 360 degree horizontal rotation
- Total brake system on front wheels
- Maximum weight supported: 600 kg (1323 lbs)



Support Stand with Leveling Feet (SAL)

- For 0.6 m (2'), 0.9 m (3') and 1.2 m (4') models
- Available in two standard sizes: 737 mm (29.0") or 864 mm (34.0")
- Maximum weight supported: 500 kg (1,100 lbs)



HP Series

Laboratory Refrigerators and Freezers

Features

- Forced-air design
- Intelligent automatic defrost
- Excellent temperature uniformity
- Door lock
- Triple-pane glass doors for refrigerators
- Isocide™ Antimicrobial Powder Coating
- High-quality stainless-steel interior for sample protection
- Internal LED lighting that saves up 70% power with less heat exposure
- Standard wheels for easy location or movement
- Audible and visual alarms

ISOCIDE™



Introduction

Laboratory professionals invest time, money and hard work on irreplaceable samples. A cold storage equipment can store thousands to millions of dollars' worth of valuable products. Once proper storage requirements are not met, these precious samples may be put at risk and eventually lead to sample spoilage and wastage. That is why, it is important to carefully choose the cold storage that can assure optimal product protection.

Esco HP Series is designed for laboratory use offering superior product protection with long term reliability and exceptional product quality. When superior levels of cold storage performance, reliability, and flexibility are needed, the Esco HP series of Laboratory Refrigerators and Freezers is the best choice—it provides a high-performance protection for your precious samples!



HR1-140S- _

HR1-400T- _

+2°C to +15°C

Laboratory Refrigerators



HF2-400T- _

HF2-1500S- _

(HF2): -10°C to -25°C
(HF3): -20°C to -40°C

Laboratory Freezers



HC6-400S- _

HC6-700S- _

Refrigerator: +2°C to +15°C
Freezer: -10°C to -24°C

Laboratory Combination
Refrigerators and Freezers

OPTIONS AND ACCESSORIES



Shelf Kits (SK_)

Atoxic, plastic-coated steel, supported by anti-tilt clips. It is for additional space inside your chamber where you can place your samples. It also provides a good support for your samples to prevent damage and maintain organization of samples.



Drawer Kits (DK_)

A drawer extractible on telescopic slides, adjustable in height, bottom made of painted steel, beehive structure type, supplied with adjustable dividers made of polypropylene, front is fitted with an ergonomic aluminum handle, for the storage of samples in a more convenient and organized way.



Digital Monitor (DM_)

An independent visual/acoustic alarm and recording system, with an accuracy of 0.1°C due to the PT100 probe used for temperature detection. It will take over alarm failures, together with standard rechargeable batteries that record event such as unauthorized personnel.



Access Port (AP_)

A 15 mm or 35 mm diameter hole that will be placed at the back of the unit, closed with a white plastic cap, used for the access of additional probes inside the chamber.



Basket Kit (BK1)

Made of stainless steel that provides an anti-corrosion environment for your samples. It is mounted on anti-tilt side slides and can be glided outside the chamber for the purpose of easy access to samples.



Chart Recorder

The chart recorder provides an easy-to-read graph of data vs time. It is a reliable, accurate, and stable instrument, for on-the-spot written documentation of chamber temperature.

Model	Item Code	Description
SK1	1330063	Shelf Kits for HR1-140, HF2-140 (Standard and Touchscreen models)
SK2	1330064	Shelf Kits for HR1-400, HF2-400 and HC6-400 (Standard and Touchscreen models)
SK3	1330065	Shelf Kits for HR1-700, HF2-700, HF3-700, HC6-700, HR1-1500 and HF2-1500 (Standard and Touchscreen models)
SK4	1330066	Shelf Kits for HF3-400 (Standard and Touchscreen models)
DK1	1330067	Drawer Kits for HR1-140, HF2-140 (Standard and Touchscreen models)
DK2	1330068	Drawer Kits for HF2-400, HR1-400 and HC6-400 (Standard and Touchscreen models)
DK3	1330069	Drawer Kits for HR1-1500, HF2-1500, HR1-700, HF2-700 and HC6 700 (Standard and Touchscreen models)
DK4	1330070	Drawer Kits for HF3-400 (Standard and Touchscreen models)
DK5	1330071	Drawer Kits for HF3-700 (Standard and Touchscreen models)
DM1	1330072	Backup battery + Digital Monitor + PT100 probe for temperature monitoring and recording during power failure. (Single Chamber, Touchscreen Models)
DM2	1330073	Backup battery + Digital Monitor + PT100 probe for monitoring and recording during power failure. (Dual Chamber, Touchscreen Models)
AP15	1330074	15 mm Access Port for all models (Standard and Touchscreen models)
AP35	1330075	35 mm Access Port for all models (Standard and Touchscreen models)
BK1	1330076	Stainless Steel Basket Kit for HR1-700, HR1-1500, HF2-700, HF2-1500, HF3-700 and HC6-700S (Standard and Touchscreen models)
Backup Battery	1330127	Standard backup battery for temperature monitoring during power failure (Standard Models)
4-20 mA	1330129	4-20 mA Output (Touchscreen models)
GSM	1330216	GSM Module (Touchscreen models)
Chart Recorder	1330185	Chart Recorder for all models (Standard and Touchscreen models)
IQOQ	9010179	Installation Qualification Operation Qualification for all models

Lexicon® II

Ultra-low Temperature Freezers



Features

- Temperature range: -50°C to -86°C
- Simple and intuitive controller
- Fast pull down time
- Effective cooling technology
- Superior insulation system
- Environment-friendly HFC refrigerants
- Excellent uniformity
- Extended warm-up time during a power failure
- Isocide™ antimicrobial powder coating
- Audible and visual alarms

Available sizes: 363 L, 480 L, 597 L, and 714 L



Introduction

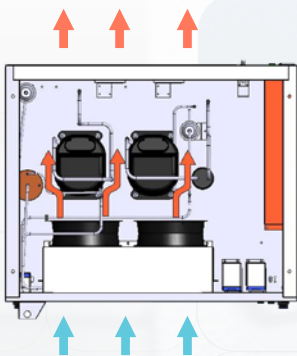
Cold storage equipment plays a very important role in a researcher's life work. Most of the studies conducted by each researcher rely on low-temperature storage in maintaining the integrity and quality of their precious samples and other biological products. For some studies, environmental samples are collected and sent to the biorepository for long-term storage in an Ultra-low Temperature Freezer (-50 to -86°C).

Esco Lexicon® II Ultra-low temperature freezer are designed with the performance and quality that are demanded by sensitive and precious samples across clinical and research applications. As ULT freezers are often operated at -80°C continuously for years, reliability is of paramount importance to the researchers. Constructed from high-quality proven components with energy-efficient refrigeration design, Esco ULT Freezers provide top-notch protection that can withstand the test of time to guarantee the integrity of your samples.

Silver Controller



Gold Controller



CASCADE COMPRESSOR

- 2-Stage cascade refrigeration system.
- Two fans are employed to draw consistent airflow from the front to the back of the freezer to cool the condenser.
- Two 1-hp hermetic compressors operated at a low speed for longer life.
- The compressors sit directly behind the fans and are air-cooled for better operating conditions.

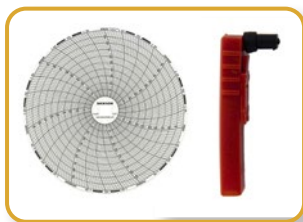
OPTIONS AND ACCESSORIES



Chart Recorder Kit



LCO₂ Back-up System



Temperature Chart and Pen Replacements for 6" Chart Recorder



Ice Scraper



Standard Cardboard 2-inch and 3-inch Boxes



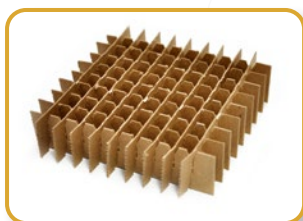
Cryo Safety Gloves



Additional Shelving Kit



Modifiable Clip rack for Lexicon® II



Standard Cardboard 49-cell, 64-cell, 81-cell, and 100-cell Dividers



2-inch and 3-inch Drawer rack for Lexicon® II



SMS Module System (for Gold controller)



PROtect Gen 2 - Independent and Redundant Monitoring System



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**.

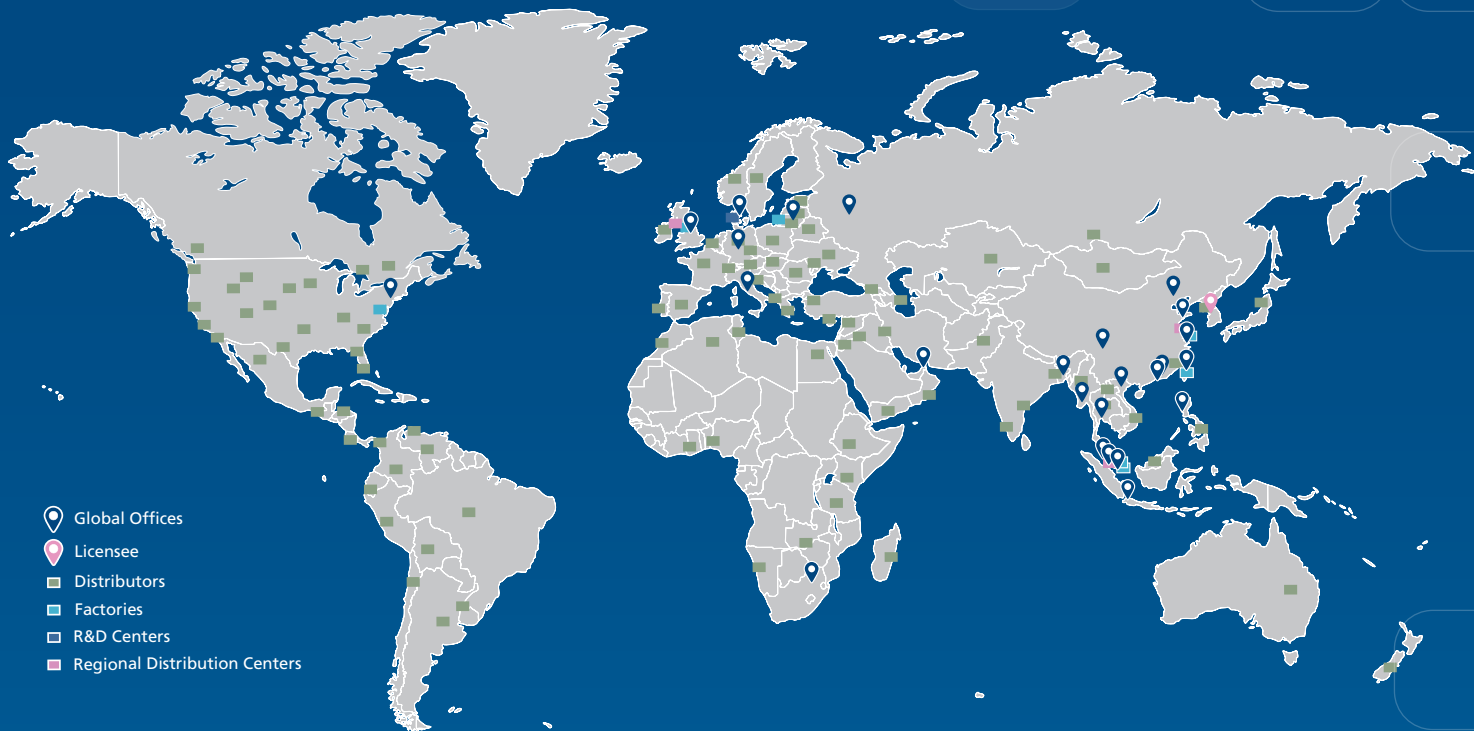
References and Links

To know more about the services we offer, visit www.escolifesciences.com



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