

# OrbiCult™

## Temperature-Controlled Incubator Shakers

*Seamless Precision for Superior Laboratory Performance*





## Welcome to Esco

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

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

**Availability and Accessibility.** Esco has headquarters in Singapore, Indonesia, and Philippines, with manufacturing facilities are 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 products are of high quality, reliable, and dependable; assuring customers of research accuracy. 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.** Building ergonomic designs and reducing noise levels of the units ensures comfort for our users.

**Esco Cares for the Environment.** One in every four of Esco's employees is involved in R&D and a number of them evaluate new components and/or designs to produce energy efficient equipment. Being GREEN is more than just modifying parts used to produce a new energy efficient technology, it is also embodied in the every aspect of the company.

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

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

**OrbiCult™**

Temperature-Controlled Incubator Shakers

## Products and Application

### Laboratory Equipment

#### Sample Handling and Preparation

- Class I Biological Safety Cabinets
- Class II 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 Cabinets
- Vertical Laminar Flow Cabinets
- Laboratory Animal Research Workstations
- Laboratory Centrifuges

#### Sample Cultivation

- CO<sub>2</sub> Incubators, Direct Heat Air-Jacketed
- CO<sub>2</sub> Incubators with Cooling System
- CO<sub>2</sub> Incubators with High Heat Sterilization
- Laboratory Shakers

#### Amplification and Detection

- Conventional Thermal Cyclers
- 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

- Ducted Fume Hoods
- Ductless Fume Hoods
- Filtered Storage Cabinets
- Powder Weighing Balance Enclosure
- Exhaust Blowers
- Fume Hood Airflow Monitor

#### General Equipment

Laboratory Thermostatic Products

- Forced Convection Laboratory Oven
- Forced Convection Laboratory Incubator

### Medical / IVF Equipment

#### Controlled Embryo Handling

- Esco Multi-Zone ART Workstation
- Esco Multi-Zone ART Workstation Class II
- AVT Anti-Vibration Table
- Semi-Closed Environment (SCE) IVF

#### Safe Embryo Culture

- MIRI® Multiroom Incubator
- MIRI® II Multiroom Incubator
- Mini MIRI® Humidified Incubator
- Mini MIRI® Dry Incubator
- CelCulture® CO<sub>2</sub> Incubator

#### Innovative Time-Lapse Imaging

- MIRI® Time-Lapse Incubator
- MIRI® GA Gas and Temperature Validation Unit
- Unique Consumables

CultureCoin®

### Healthcare

#### Esco Pharma Products

##### Airflow Containment

- BioBooth™
- Ceiling Laminar Airflow (CLAF)
- Cytoculture® Cytotoxic Safety Cabinet
- Pharmacon™ Downflow Booth
- Esco Garment Storage Cabinet
- Esco Glassware Cabinets
- Laminar Flow Horizontal/Vertical Trolley (LFH/VT)
- Laminar Flow Straddle Units
- Evidence Drying Cabinet

##### Isolation Containment

- Advanced Processing Platform Isolator (APPI)
- Aseptic Containment Isoaltor (ACTI)
- Blood Cell Labelling Isolator
- Streamline® Closed Restricted Access Barrier System (SLC-RABS)
- Containment Barrier Isolator (CBI)
  - CBI-Unidirectional (CBI-U)
  - CBI-Turbulent (CBI-T)
  - CBI-Class III Biosafety Cabinet (CBI-III)
  - CBI-Convertible Class III/Class I Biosafety Cabinet (CBI-H)
  - HPI-G3-Without Filter Below Work Zone
  - HPI-G3-With Filter Below Work Zone
  - HPI-Inflatable Seal (HPI-IS)
- General Processing Platform Isolator
  - GPPI-Inflatable Seal (GPPI-IS)
  - GPPI-Static Seal (GPPI-SS)
- Streamline® Compounding Isolator
  - SCI - Isolator Configuration
  - SCI - Class III Biosafety Cabinet (SCI-III)
- Technetium Dispensing Isolator
- Turbulent Flow Aseptic Isolator (TFAI)
- Weighing and Dispensing Containment Isolator (WDCI)

##### Cross Contamination Facility Integrated Barrier

- BioPass™ Pass Through
- Cleanroom Air Showers
- Dynamic Pass Boxes/ Dynamic Floor Laminar Hatches
- Infinity® Air Shower Pass Box
- Esco Sputum Booth
- Infinity® Pass Boxes
- Infinity® Cleanroom Transfer Hatch
- Soft Capsule® Soft Wall Cleanroom

##### Ventilation Containment

- Ventilated Balance Enclosure

#### Esco VacciXcell Products

##### Bioreactors and Fermenters

- CelXrocker™
- CelCradle™
- CelShaker™
- CelCradle™ X
- CelCradle Semi-Automated Harvesting System™ (CCX-SAH)
- BioXcell™
- StirCradle™
- StirCradle™ PRO
- TideXcell™
- TideXcell™ Harvesting System (TXLHS)
- VXL™ 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

- Filling Line Isolators
- cRabs (close restricted access barriers)
- oRabs (open restricted access barriers)

#### Integrated Solutions

- Cell Processing Isolator
- Cell Processing Center

#### Esco TaPestle Rx Products

##### Pharmacy Compounding Solutions

- Compounding Pharmacy Isolators (SCI, HPI, CBI, GPPI)
- Safety Cabinets and Enclosures (CYT, Class II BSC, VBE, LFC)
- Aseptic Filling Systems

##### Radiopharmacy Equipment Solutions

- Radioisotope Fume Hood
- Lead-lined Biosafety Cabinet
- Technetium Dispensing Isolator
- Blood Cell Labeling Isolator
- GMP-compliant Radioisotope Dispensing Isolator

## Key Features



Double Layer Transparent Window



3-Tier User Management Control

### Stable & Energy-Efficient Drive System

*High-Speed Performance with Minimal Energy Consumption*

- Advanced 3D Triple-Axis Eccentric Drive: Delivers high-speed, high-load operation while minimizing energy expenditure
- Powerful Brushless Motor: Minimize vibration for durable, maintenance-free operation.
- Built-in Filter Magnetic Ring: Reduce wavelength interference for enhanced stability and smooth operation.

### Standard Dual UV Sterilisation Design

*Maximized Effectiveness with Flexible Control*

- Bidirectional Sterilization: Ensures thorough sterilization with minimal dead spots.
- Independent Function Control: Separate controls for lighting and UV functions for customizable use.

### Space-Saving Stacking Design

*Optimized Space Efficiency with Ergonomic Access*

- Three-Tier System: Features downward and upward-opening doors for easy access and space maximization.
- Independent Layer Control: Allows simultaneous or separate operation at different parameter settings.

### Superior Structural Features

*Durable and Easy-to-Maintain Design*

- Stainless Steel Interior: Resists bacterial growth, easy to clean, and features coved corners.
- High-Strength Casing: Electrostatic spray coating for excellent insulation.
- Double-Layer Safety Glass Doors: Provides superior insulation and anti-fogging properties.
- Stable & Energy-Efficient: Noise levels below 55 dB for a quieter working environment.





Linear Motion Shakers with Push-pull Rails

CO<sub>2</sub> Infrared Sensor

## Uniform & Stable Temperature Control System

*Precise Regulation for Optimal Performance*

- PID Control and Variable Frequency Compressor: Ensure accurate and stable temperature with minimal fluctuations.
- Dual Cross-Flow Fans: Efficient air circulation maintains excellent uniformity.
- Automatic Defrosting: Guarantees stable operation even at low temperatures.

## Clean & Responsive CO<sub>2</sub> Control System

*Reliable Monitoring for a Clean Environment*

- DCS Infrared CO<sub>2</sub> sensor Provides precise CO<sub>2</sub> detection, unaffected by temperature and humidity.
- Efficient Contamination Prevention: Multiple high-efficiency filters ensure a clean environment.

## Customizable Humidity Control System

*Adaptable Humidity Management for Equipment Protection*

- Active Humidification: Rapidly increase humidity to specific humidity level.
- Automatic Water Replenishment: Automatically maintains safe water level to ensure consistent humidity level.

## Powerful & Fast Program Control System

*Intuitive Operation with Versatile Programming*

- 10-Inch Color Touchscreen: Intuitive interface with screen lock, timeout, and password protection.
- Real-Time Parameter Tracking: Displays live and historical data.
- Multi-Stage Programming: 12-stage automation for diverse environments.
- 3-Tier User Management Control: Prevents misuse or operation by unauthorized personnel.



## Precise & Safe Speed Control System

*Accurate and Gentle Operation for Sample Protection*

- Feedback Mechanism: Maintains precise speed control under heavy loads.
- Gentle Shaking Design: Slow start and stop prevent cell rupture and spillage, ensuring sample safety.
- Automatic Safety Stop: Automatically pauses operation when the door is opened to ensure operator's safety

## Intelligent Safety System for Maximum Protection

*Comprehensive Safety with Smart Features*

- Advanced Alarm System: Multiple audio and visual alarms with recording and retrieval.
- Smart Program Recovery: Automatically resumes operation according to the original program after power is restored following a power outage.
- Robust Data Handling: Stores over 912 days of data, with 7-day retrieval and USB export.

## OUR SERVICES

We Provide a One-stop Solution from Installation to Decommissioning of Your Equipment!



### Expert Support from Start to Finish

Our team provides full technical assistance from installation, calibration, user training, to decommissioning. Comprehensive documentation and service reports are included for traceability and compliance purposes.



### Fast Response

We offer responsive technical support within 24 hours\* for priority clients. Our support team is easily reachable via email and phone.



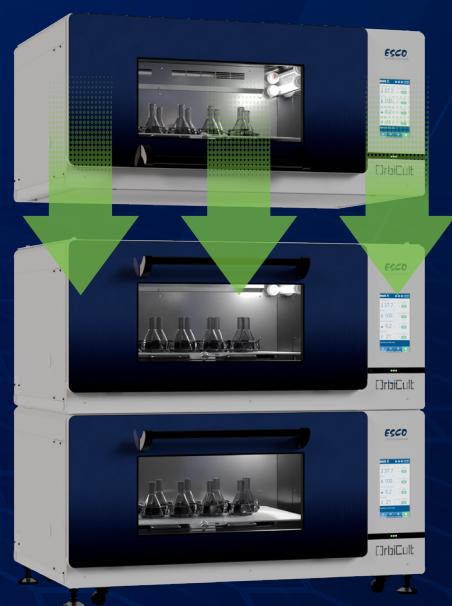
### Dedicated Regional Service Team

Our Field Service Representatives are trained to provide fast and reliable service, with access to ready spare parts and factory-level technical support.



### Commitment to Service Excellence

We aim to exceed customer expectations through timely, consistent, and professional support throughout the equipment lifecycle.



Safeguard Your Equipment with Our Service and Warranty Package!

# Why Choose OrbiCult™ Series?



## ***Modular Design***

The OrbiCult™ incubator shaker features 2 different capacities and a 3-Tier stackable design that allow users to maximize experiment output with minimum equipment footprint. Each unit operates independently with different parameters further enhancing the flexibility and efficiency in experiment setups.



## ***Precise Control***

This advanced system offers meticulous regulation of temperature, rotation speed, CO<sub>2</sub> concentration and humidity, ensuring that optimal conditions are maintained for various laboratory applications. Its integrated feedback mechanism prevents deviations and maximizes experimental reproducibility.



## ***Versatility***

Standard refrigeration model and multi-section programmable function allow the OrbiCult™ incubator shaker to meet diverse research and production requirements. Capable of supporting a wide array of applications from cell cultivation, DNA & protein production to plasmid cloning, this system serves as a highly adaptable tool for modern laboratory workflows.

## TECHNICAL SPECIFICATIONS

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## Optional Accessories

No	Item Code	Description
1	2200054T	Erlenmeyer Flask Clamp 50 mL
2	2200055T	Erlenmeyer Flask Clamp 100 mL
3	2200056T	Erlenmeyer Flask Clamp 150 mL
4	2200057T	Erlenmeyer Flask Clamp 200 mL
5	2200058T	Erlenmeyer Flask Clamp 250 mL
6	2200059T	Erlenmeyer Flask Clamp 500 mL
7	2200060T	Erlenmeyer Flask Clamp 1000 mL
8	2200061T	Erlenmeyer Flask Clamp 2000 mL
9	2200062T	Erlenmeyer Flask Clamp 3000 mL
10	2200063T	Test Tube Rack 40 x Ø14 mm, 5 mL Tubes
11	2200064T	Test Tube Rack 40 x Ø16 mm, 10 mL Tubes
12	2200065T	Test Tube Rack 40 x Ø18 mm, 15 mL Tubes
13	2200066T	Test Tube Rack 27 x Ø22 mm, 20 mL Tubes
14	2200067T	Test Tube Rack 21 x Ø30 mm, 50 mL Tubes
15	2200068T	Test Tube Rack, SS, 36 x Ø21.5 mm, 20 mL
16	2200069T	Test Tube Rack, SS, 36 x Ø18.5 mm, 15 mL
17	2200070T	Test Tube Rack, SS, 55 x Ø15.5 mm, 10/15 mL
18	2200071T	Test Tube Rack, SS, 15 x Ø30 mm, 50 mL
19	2200072T	Test Tube Rack, SS, 24 x Ø30 mm, 50 mL
20	2200073T	Adjustable Test Tube Rack, SS, 24 x Ø30 mm, 50 mL
21	2200074T	Fixed Centrifuge Tube 21 x Ø30 mm, 50 mL, W/ Stabilizing Dev
22	2200075T	Fixed Centrifuge Tube 40 x Ø18 mm, 15 mL, W/ Stabilizing Dev
23	2200076T	Fixed Centrifuge Tube Rack 10 x Ø30 mm, 50 mL, W/ Stabilizing Dev
24	2200077T	Fixed Centrifuge Tube Rack 24 x Ø18 mm, 15 mL, W/ Stabilizing Dev
25	2200078T	Adjustable Test Tube Rack 40 x Ø14 mm, 5 mL
26	2200079T	Adjustable Test Tube Rack 40 x Ø16 mm, 10 mL
27	2200080T	Adjustable Test Tube Rack 40 x Ø18 mm, 15 mL
28	2200081T	Adjustable Test Tube Rack 40 x Ø16 mm, 10mL, w/ Stabilizing Dev
29	2200082T	Adjustable Test Tube Rack 27 x Ø22 mm, 20 mL
30	2200083T	Adjustable Test Tube Rack 21 x Ø30 mm, 50 mL
31	2200084T	Adjustable Test Tube Rack 21 x Ø28 mm, 50 mL, w/ Stabilizing Dev
32	2200086T	Multifunctional Spring Rack, 165 x 165 x 80 mm
33	2200087T	Multifunctional Spring Rack, 720 x 440 x 80 mm
34	2200088T	Multifunctional Spring Rack, 899 x 539 x 81.5 mm
35	2200089T	Fixture Separating Funnel 4 Clamps

No	Item Code	Description
36	2200090T	Fixture Separating Funnel, For Funnel > 500 mL
37	2200091T	Infusion Bottle Clamp 500 mL, SS
38	2200092T	Infusion Bottle Clamp 1000 mL, SS
39	2200093T	Self-Adhesive Silicon Pad, S
40	2200094T	Self-Adhesive Silicon Pad, L
41	2200095T	Micro Plate Holder
42	2200096T	24-Deep Well Plate Holder, 127 x 85 x 51 mm
43	2200097T	Deep Well Plate Clamp, 780 x 450 x 84 mm
44	2200098T	Static Shelf, 864 x 500 mm, For Culture Dish
45	2200099T	Static Shelf, 1005 x 600 mm, For Culture Dish
46	2200100T	Stacking Stand, For OC-30
47	2200101T	Stacking Stand, For OC-40
48	2200102T	Automatic Water Replenishment Device
49	2200103T	Active Humidifier
50	2200104T	Reservoir, 240W x 240D x 449H mm, 15 L (PH and AH)



Self-adhesive silicon pad



Erlenmeyer flask clamp



Adjustable test tube rack



Test tube rack



Microplate holder



Deep well plate clamp



Active humidifier

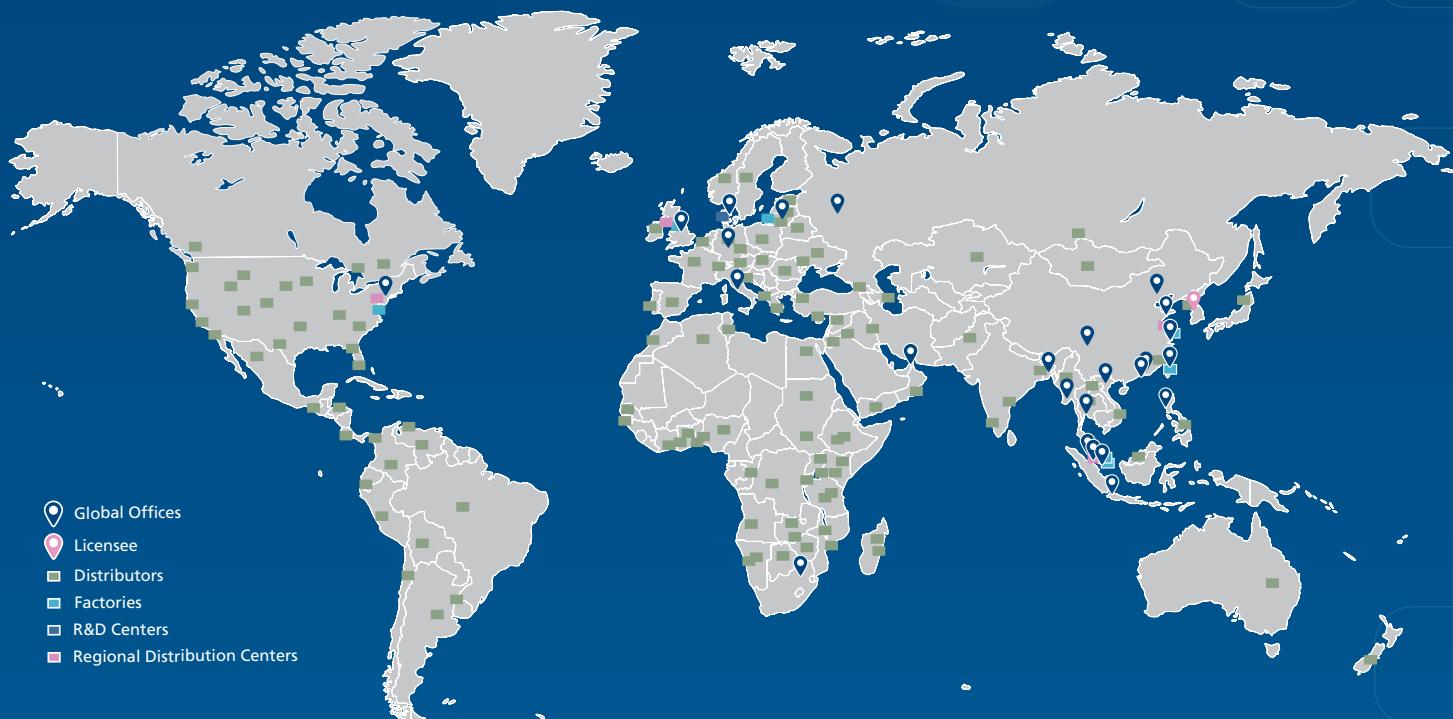


Infusion bottle clamp



Multifunctional spring rack

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42 LOCATIONS IN 21 COUNTRIES ALL OVER THE WORLD



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