

ESCO

WORLD CLASS. WORLDWIDE.



CelCulture® Water-Jacketed CO₂ Incubator

CelCulture®

Water-Jacketed CO₂ Incubator
Cradle for Beautiful Cells





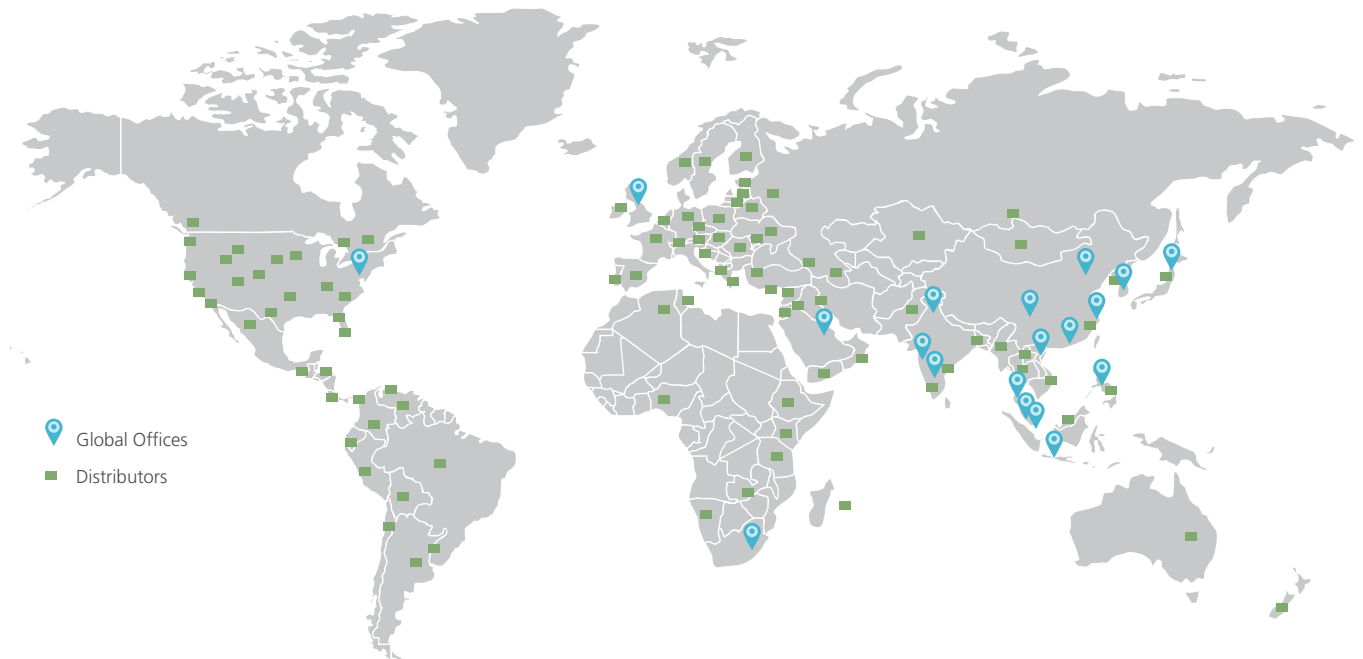
WELCOME TO ESCO



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

- A leader in the development of controlled environment, laboratory and pharmaceutical equipment solutions.
- A world leader in biological safety cabinets.
- Esco has established offices in 13 countries such as Bahrain, China, India, Japan, Korea, Malaysia, Philippines, Singapore, UK, US, Vietnam, South Africa and Indonesia and is continually expanding.
- North American facilities in Pennsylvania; sales, service, logistics for US & Canada.
- Group total of more than 600 employees.
- Distributors in more than 100 countries.
- Products independently tested to international standards.
- Large R&D investments, world leading technologies.
- State-of-the-art production; vertically integrated manufacturing floor space.
- Worldwide service played out over a geographic expanse so broad that the sun never sets on what we do.



GLOBAL NETWORK

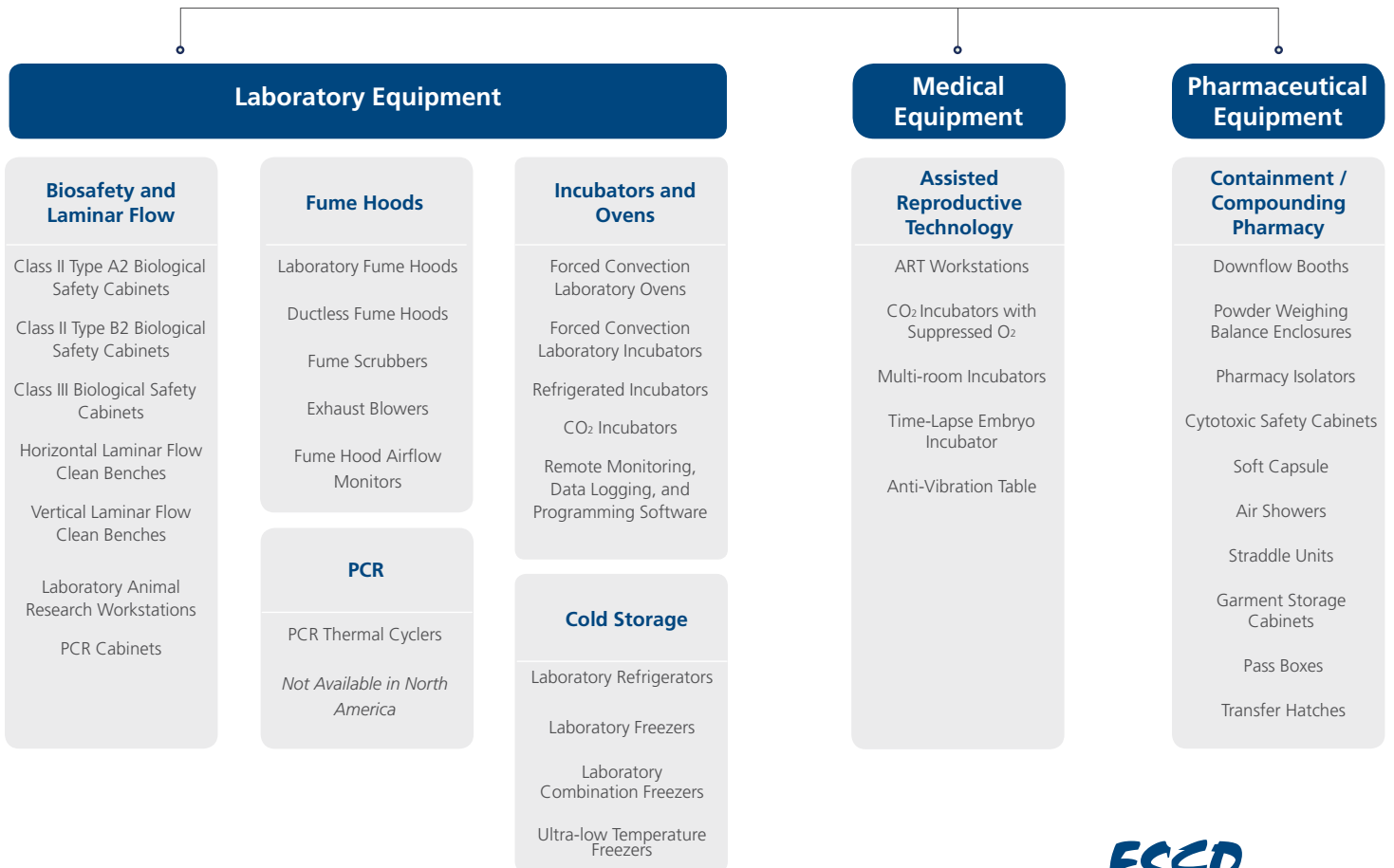


 Global Offices
 Distributors

PRODUCTS AND APPLICATION

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Esco Life Science Tools





CelCulture®

Water-Jacketed CO₂ Incubator

INTRODUCTION

Esco CelCulture® Water-Jacketed CO₂ Incubator provides a very stable environment to grow and maintain cell cultures.

Water-Jacketed CO₂ Incubator can maintain temperature by surrounding the chamber by hot walls generated from the heated water. The heated water circulates and radiates heat around the inner chamber which maintains constant temperature.

Water-Jacketed CO₂ Incubator can hold the chamber temperature much longer when power is lost. The CO₂ incubator will also be able to recover temperature much faster after power failure as it also gets back more quickly as temperature settings change due to frequent opening of the door.

KEY FEATURES

MORE STABLE TEMPERATURE CONTROL

- Faster temperature recovery times after power outage and door openings.
- Better temperature uniformity

INCREASED SECURITY

Hold a set temperature inside the chamber much longer than air-jacketed units in the event of power failure.

COMPLETE CONTAMINATION CONTROL METHODS

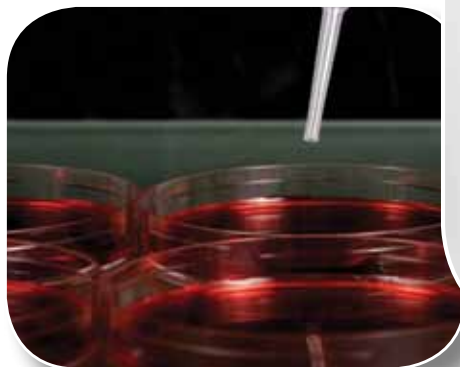
- ULPA filter
- 0.2 micron inline filter
- ISOCIDE™ antimicrobial coating.
- 90°C Moist Heat Decon Cycle (water in the external chamber needs to be drained first)

CONVENIENCE

The unit is equipped with a fill-in port to place water and a drain valve to facilitate faster depletion of water when cleaning, before decon cycle or before transporting the equipment

EASY MONITORING

Water level can be check via the water level sensor.



OPTIONS AND ACCESSORIES

All options and accessories for standard CelCulture® CO₂ Incubators are also appropriate to use on Water-Jacketed CelCulture® CO₂ Incubators.

ORDERING INFORMATION

TC SENSOR MODEL WITH STAINLESS STEEL CHAMBER

Models		Description
230 V / 50-60 Hz	115 V / 50-60 Hz	
CCL-050A-8-WJ	CCL-050A-9-WJ	CelCulture® Incubator, 50 L, TC Sensor, CO ₂ Control, Water-Jacketed
CCL-170A-8-WJ	CCL-170A-9-WJ	CelCulture® Incubator, 170 L, TC Sensor, CO ₂ Control, ULPA, Water-Jacketed
CCL-240A-8-WJ	CCL-240A-9-WJ	CelCulture® Incubator, 240 L, TC Sensor, CO ₂ Control, ULPA, Water-Jacketed

IR SENSOR MODEL WITH STAINLESS STEEL CHAMBER

Models		Description
230 V / 50-60Hz	115 V / 50-60 Hz	
CCL-050B-8-WJ	CCL-050B-9-WJ	CelCulture® Incubator, 50 L, IR Sensor, CO ₂ Control, Water-Jacketed
CCL-170B-8-WJ	CCL-170B-9-WJ	CelCulture® Incubator, 170 L, IR Sensor, CO ₂ Control, ULPA, Water-Jacketed
CCL-240B-8-WJ	CCL-240B-9-WJ	CelCulture® Incubator, 240 L, IR Sensor, CO ₂ Control, ULPA, Water-Jacketed

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SUPPRESSED O₂ MODEL WITH STAINLESS STEEL CHAMBER

Models		Description
230 V / 50-60 Hz	115 V / 50-60 Hz	
CCL-050T-8-WJ	CCL-050T-9-WJ	CelCulture® Incubator, 50 L, IR Sensor, CO ₂ Control, O ₂ Control, Water-Jacketed
CCL-170T-8-WJ	CCL-170T-9-WJ	CelCulture® Incubator, 170 L, IR Sensor, CO ₂ Control, O ₂ Control, ULPA, Water-Jacketed
CCL-240T-8-WJ	CCL-240T-9-WJ	CelCulture® Incubator, 240 L, IR Sensor, CO ₂ Control, O ₂ Control, ULPA, Water-Jacketed

GENERAL SPECIFICATION

Models	CCL-50-_-WJ	CCL-170-_-WJ	CCL-240-_-WJ
Temperature			
Ambient Temperature Range	18 to 34°C (64 to 93°F)		
Temperature Control Method	Direct Heat and Water Jacketed using PID microprocessor		
Temperature Range	Ambient +3°C to 60°C		
Temperature Uniformity	± 0.2°C*	± 0.2°C*	± 0.3°C*
Temperature Fluctuation	± 0.1°C	± 0.1°C	± 0.1°C
Temperature Recovery time** (after 1 min. door opening, 98% from initial value)	4 minutes	6 minutes	6 minutes
Start up time (25°C amb. to 37.0°C)	60 minutes	60 minutes	80 minutes
Power Off Temperature Drop Rate: 1 hour 10 hours	1.8°C 7.0°C	0.6°C 6.2°C	1.2°C 5.5°C
CO₂			
CO ₂ Control System	Microprocessor PID		
CO ₂ Range	0-20%		
CO ₂ Accuracy	± 0.1%		
CO ₂ Sensor	Infrared (IR) Sensor**/TC Sensor		
CO ₂ Recovery Time*** (after 1 min. door opening, 98% from initial value)	Standard Unit: 8 minutes Suppressed O ₂ model: 6 minutes	Standard Unit: 4 minutes Suppressed O ₂ model: 5 minutes	Standard Unit: 5 minutes Suppressed O ₂ model: 5 minutes
O₂ for Supressed O₂ Model			
O ₂ Control System	Microprocessor PID		
O ₂ Range	1% - 20.7%		
O ₂ Accuracy	± 0.1%		
O ₂ Sensor	Galvanic Cell Type		
O ₂ Recovery Time*** (after 1 min. door opening, 98% from initial value)	At 1.0% O ₂ volume: 10 minutes At 5.0% O ₂ volume: 6 minutes	At 1.0% O ₂ volume: 20 minutes At 5.0% O ₂ volume: 10 minutes	At 1.0% O ₂ volume: 24 minutes At 5.0% O ₂ volume: 12 minutes

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Humidity			
Humidification Method	Humidity pan		
Humidity range*****	85% - 93%		
Humidity range (Suppressed O ₂ control)*****	85% - 91%		
Physical Parameters			
Interior Volume	50 L (1.8 cu. ft.)	170 L (6.0 cu. ft.)	240 L (8.5 cu. ft.)
Internal Dimensions (W x D x H)	345 mm x 375 mm x 390 mm (13.6" x 14.8" x 15.4")	505 mm x 530 mm x 635 mm (19.9" x 20.9" x 25.0")	595 mm x 620 mm x 635 mm (23.4" x 24.4" x 25.0")
External Dimension (W x D x H)	500 mm x 500 mm x 705 mm (19.7" x 19.7" x 27.8")	660 mm x 670 mm x 980 mm (26.0" x 26.4" x 38.6")	750 mm x 765 mm x 980 mm (29.5" x 30.1" x 38.6")
Water Jacket Volume	10 L	20 L	45 L
Net Weight	75 kg (165 lbs) (no water)	102 kg (225 lbs) (no water)	170 kg (374 lbs) (no water)
Shipping Weight	90 kg (198 lbs)	118 kg (260 lbs)	185 kg (407 lbs)
Shipping Dimension (W x D x H)	660 mm x 690 mm x 980 mm (26.0" x 27.2" x 38.6")	850 mm x 750 mm x 1240 mm (33.5" x 29.5" x 48.8")	860 mm x 860 mm x 1240 mm (33.8" x 33.8" x 48.8")
Number of Shelves	2	4	
Maximum No. of Shelves	4	7	
Shelves Area (W x D)	310 mm x 310 mm (12.2" x 12.2")	470 mm x 470 mm (18.5" x 18.5")	550 mm x 550 mm (21.7" x 21.7")
Max. Load per Shelf	4 kg/shelf (8.8 lbs/shelf)	11 kg/shelf (24.3 lbs/shelf)	15 kg/shelf (33.1 lbs/shelf)
Available Electrical Configuration	220 - 240 VAC, 50 / 60 Hz, 1 Φ , 3.4 A 110 - 130 VAC, 50 / 60 Hz, 1 Φ , 7.0 A		
Airflow	6-8 cfm		
Interior Material	Stainless steel, type 304		
Nominal Power 37°C	28 Watts	50 Watts	80 Watts
Power/FLA current	495 Watts, 2.8 A, 230 V 495 Watts, 5.6 A, 115 V	640 Watts, 2.8 A, 230 V 640 Watts, 5.6 A, 115 V	850 Watts, 3.7 A, 230 V 850 Watts, 7.4 A, 115 V
Contamination Control			
Contamination Control Methods	1) Main body is electrogalvanized steel with ISOCIDE™ antimicrobial coating; 2) 0.2 micron in-line filter for gas inputs; 3) ULPA filter***** 4) 90°C Moist Heat Decon Cycle (water in the external chamber needs to be drained first)		

* Data recorded under optimum factory setting conditions

** For temperature not exceeding 37°C

*** For CO₂ not exceeding 5.2%. Recovery time for TC sensor is longer

**** For O₂ not exceeding 5.2%

***** Esco does not guarantee condensation free chamber at higher humidity level.

***** Not available on 50 L size model

ESCO GLOBAL NETWORK



- ART Equipment
- Biological Safety Cabinets
- CO₂ Incubators
- Cold Storage
- Compounding Pharmacy Equipment
- Containment / Pharma Products
- Ductless Fume Hoods
- Lab Animal Research Products
- Laboratory Fume Hoods
- Laboratory Incubators
- Laboratory Ovens
- Laminar Flow Cabinets
- Laboratory Freeze Dryers
- PCR Cabinets
- PCR Thermal Cyclers
- Powder Weighing Balance Enclosures

The Esco Group of Companies is a global life sciences tools provider with sales in over 100 countries. The group is active in lab equipment, pharma equipment and medical devices. Manufacturing facilities are located in Asia and Europe. R&D is conducted worldwide spanning the US, Europe and Asia. Sales, service and marketing subsidiaries are located in 12 major markets including the US, UK, Singapore, Japan, China and India. Regional distribution centers are located in the US, UK, and Singapore.

Life Science • Chemical Research • Assisted Reproductive Technology (ART) • Pharmaceutical Equipment • General Equipment

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