

ESCO

WORLD CLASS. WORLDWIDE.



*CelCulture® CO₂ Incubator
Model CCL-170-_-_-*

CelCulture®

CO₂ Incubator with Integrated Cooling System

Solution for Highly Specialized Applications





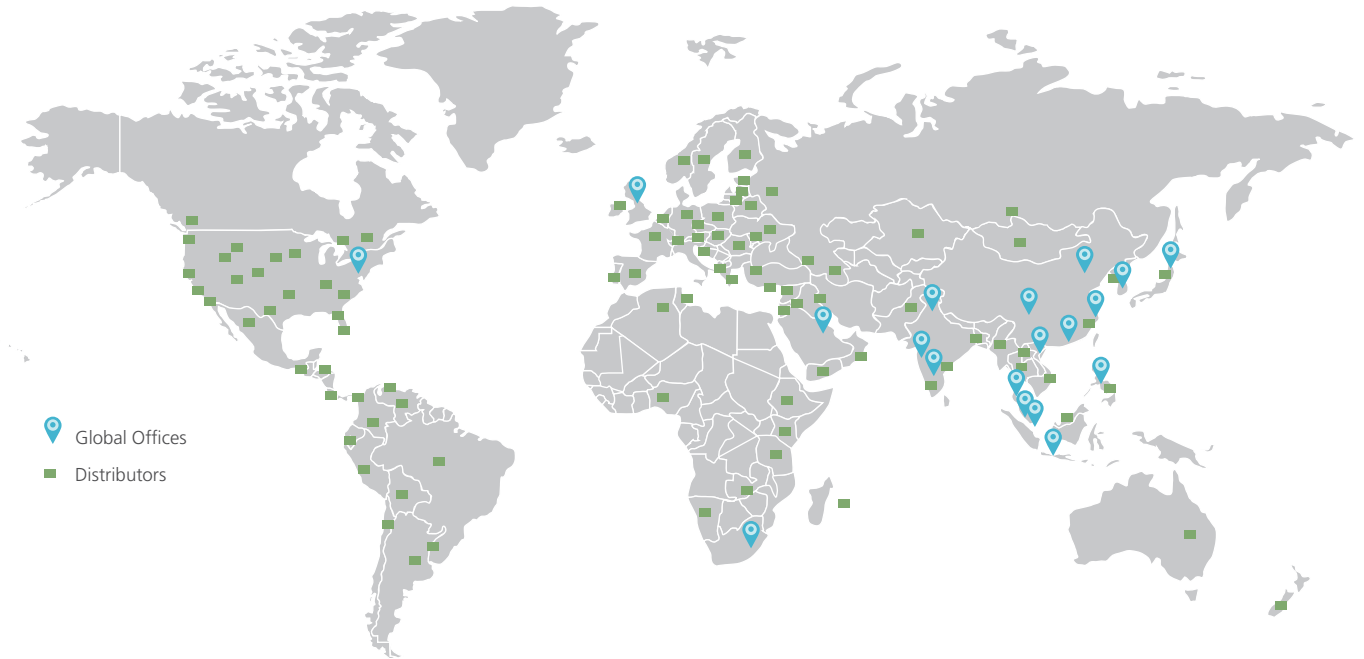
WELCOME TO ESCO

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.

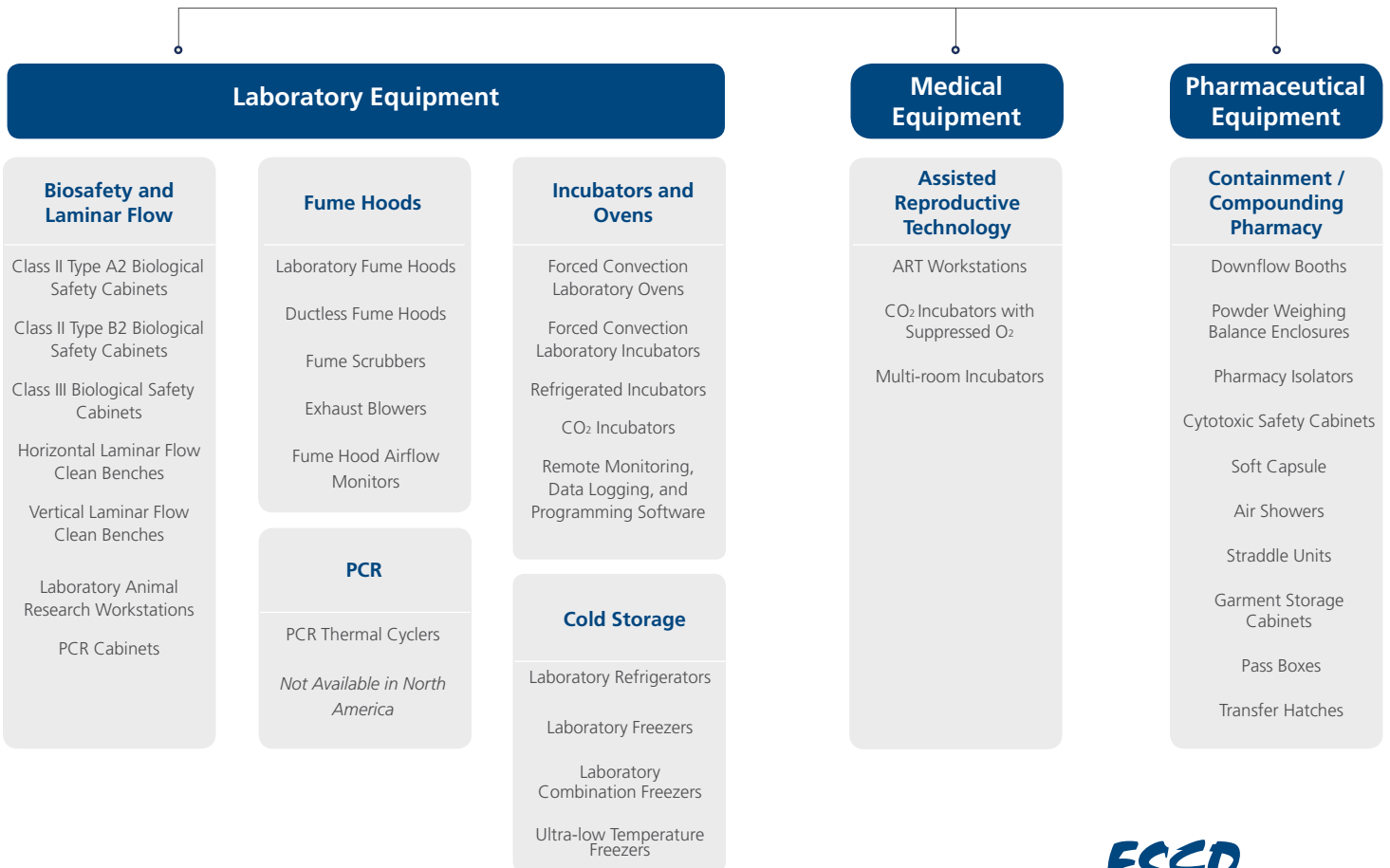


GLOBAL NETWORK



PRODUCTS AND APPLICATION

Esco Life Science Tools





CelCulture®

CO₂ Incubator with Integrated Cooling System

INTRODUCTION

Esco CelCulture CO₂ Incubator with Integrated Cooling System provides solution for highly specialized application.

The integrated cooling system allows studies of samples that requires temperature at/or below ambient temperature.

KEY FEATURES

WIDER TEMPERATURE RANGE

Temperature range of 12°C below ambient to 60°C above ambient means wider range of applications.

HIGHLY EFFICIENT, ENVIRONMENTALLY FRIENDLY PELTIER COOLING SYSTEM

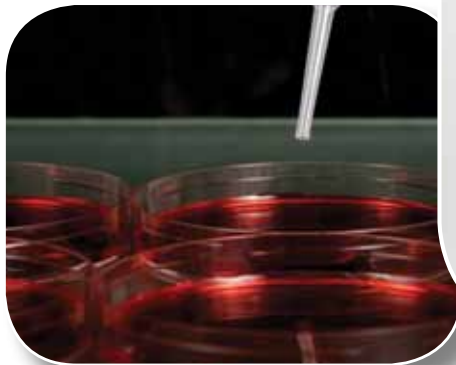
This provides precise heating and cooling inside the chamber making sure that your samples are safe from temperature changes.

COMPLETE CONTAMINATION CONTROL METHODS

- 90 °C validated moist heat decontamination cycle
- ULPA filter
- ISOCIDE® anti-microbial coating
- 0.2 micron in-line filter

APPLICATIONS

- Stem Cell Research
- Mammalian Research
- Tissues Re-generation
- Food Research
- Regenerative Medicine
- Marine Biology
- Fish Cell Research
- Amphibian cell Research
- Insect Cell Research



HEATING AND COOLING FUNCTION

Users can use it as a conventional CO₂ incubator using heating mode or switch to cooling mode.



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SYSTEM SETPOINTS
TEMP=37.0°C  O2=5.0%
CO2= 5.0%  HEATING
SYSTEM OK
```



```
SYSTEM SETPOINTS
TEMP=12.0°C  O2=5.0%
CO2= 5.0%  COOLING
SYSTEM OK
```

OPTIONS AND ACCESSORIES

All options and accessories for standard CelCulture CO₂ incubators are also appropriate to use on CelCulture CO₂ Incubator with Integrated Cooling Option.

ORDERING INFORMATION

IR SENSOR MODEL WITH INTEGRATED COOLING SYSTEM

Models	Description
CCL-170-B-8-P	CelCulture Incubator, 170L, IR sensor, CO ₂ control, Moist Heat Decon, Peltier System, 230VAC, 50/60 Hz
CCL-170-B-9-P	CelCulture Incubator, 170L, IR sensor, CO ₂ control, Moist Heat Decon, Peltier System, 115VAC, 50/60 Hz

SUPPRESSED O₂ MODEL WITH INTEGRATED COOLING SYSTEM

Models	Description
CCL-170-T-8-P	CelCulture Incubator, 170L, IR sensor, CO ₂ control, O ₂ control, Moist Heat Decon, Peltier System, 230VAC, 50/60 Hz
CCL-170-T-9-P	CelCulture Incubator, 170L, IR sensor, CO ₂ control, O ₂ control, Moist Heat Decon, Peltier System, 115VAC, 50/60 Hz

GENERAL SPECIFICATION

Models	CCL-170B-8-P CCL-170B-9-P
TEMPERATURE (Heating Mode)	
Ambient Temp Range	18 to 34°C (64 to 93 °F)
Temperature Control Method	Direct Heat and Air Jacketed with Peltier Cooling System using PID microprocessor
Temperature Range, °C	12°C below ambient to 60°C above ambient
Temperature Uniformity, °C	± 0.2*
Temperature Fluctuation, °C	± 0.1
Temperature Recovery time** (after 1 min. door opening, 98% from initial value), minutes	6
TEMPERATURE (Cooling Mode)	
Pull Down Time to 8°C below Ambient (at 25°C Ambient Temperature), minutes	42
Pull Down Time to 12°C below Ambient (at 25°C Ambient Temperature), minutes	90
Temperature Uniformity at 8°C below Ambient, °C	± 0.4
Temperature Recovery Time*** (after 1 min. door opening, 98% from initial value), minutes	32
Power Off Temperature Increase Rate 1 hour, °C 10 hours, °C	1.9 10
CO ₂ (Heating Mode)	
CO ₂ Control System	Microprocessor PID
CO ₂ Range, % CO ₂	0-20
CO ₂ Accuracy, % CO ₂	± 0.1
CO ₂ Sensor	Infrared (IR) Sensor**
CO ₂ Recovery Time*** (after 1 min. door opening, 98% from initial value) (Heating Mode)	Standard Unit: 4 minutes Suppressed O ₂ model: 5 minutes
CO ₂ (Cooling Mode)	
Start-up Time at 5% CO ₂ , minutes	14
Recovery Time at 5% CO ₂ , minutes	9
CO ₂ Fluctuation, %CO ₂	± 0.3
FOR SUPPRESSED O ₂ MODEL (Heating Mode)	
O ₂ Control System	Microprocessor PID
O ₂ Range, % O ₂	1-20.7
O ₂ Accuracy, % O ₂	± 0.1
O ₂ Sensor	Galvanic Cell Type
O ₂ Recovery Time**** (after 1 min. door opening, 98% from initial value), minutes	At 1.0% O ₂ volume: 20 At 5.0% O ₂ volume: 10

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FOR SUPPRESSED O ₂ MODEL (Cooling Mode)	
Start-up Time at 5% O ₂ , minutes	14
O ₂ Recovery Time at 5% O ₂ **** (after 1 min. door opening, 98% from initial value), minutes	12
O ₂ Fluctuation, %O ₂	± 0.2
Humidity (Heating Mode)	
Humidification Method	Humidity pan
Humidity range	85% - 93%
Humidity range (Suppressed O ₂ control)	85% - 91%
Physical Parameters	
Interior Volume	170l (5.7 cu. Ft.)
Internal Dimensions (W x D x H)	505 mm x 530 mm x 635 mm (19.9" x 20.9" x 25.0")
External Dimension (W x D x H)	660 mm x 672 mm x 900 mm (26.0" x 26.46" x 35.4")
Net Weight	105 kg (231 lbs)
Shipping Weight	131.5 kg (289 lbs)
Shipping Dimension (W x D x H)	820 mm x 850 mm x 930 mm 32.28" x 33.47" x 36.62"
Number of Shelves	4
Maximum No. of Shelves	7
Shelves Area (W x D)	470 mm x 470 mm (18.5" x 18.5")
Max. Load per Shelf	11 kg/shelf (24.3 lbs/shelf)
Available Electrical Configuration	220 - 240 VAC, 50 / 60 Hz, 1Φ, 3.4 A 110 - 130 VAC, 50 / 60 Hz, 1Φ, 7.0 A
Airflow	6-8 cfm
Interior Material	Stainless steel, type 304
Maximum Power Consumption	800 Watts
Power Consumption 37°C	80 W
CONTAMINATION CONTROL	
Contamination Control Methods	1) Main body is electrogalvanized steel with ISOCIDE® antimicrobial coating; 2) Moist 90°C OVERNIGHT decon. cycle (HPA validated); 3) 0.2 micron in-line filter for gas inputs; 4) ULPA filter

* Data recorded under optimum factory setting conditions
 ** For temperature not exceeding 37°C
 *** For CO₂ not exceeding 5.2%.
 **** For O₂ not exceeding 5.2%

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



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Esco Technologies, Inc. • 2940 Turnpike Drive, Units 15-16 • Hatboro, PA 19040, USA
Toll-Free USA and Canada 877-479-3726 • Tel 215-441-9661 • Fax 215-441-9660
us.escoglobal.com • eti.sales@escoglobal.com

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 Global Offices: Manama, Bahrain | Beijing, China | Chengdu, China | Guangzhou, China | Shanghai, China | Bangalore, India
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