



## *IncuSafe* MCO-80IC REACH-IN INCUBATOR

**Model:**  
MCO-80IC-PE

The MCO-80IC is ideal for culturing high volumes of patient samples and performing short-term studies. The MCO-80IC includes PHCbi's advanced incubator technologies to provide outstanding performance and anti-contamination control and has an exceptionally low CO<sub>2</sub> gas consumption.

# REACH-IN DESIGN WITH LARGE CAPACITY



MCO-80IC -PE with optional inner door kit (MCO-80ID-PW)

## MCO Large Scale Cell Culture CO<sub>2</sub> Incubator

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MCO-80IC-PE | 851 litres Incubator

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The MCO-80IC is ideal for culturing high volumes of patient samples, performing short-term studies, and working with large volume cell culture apparatus.

Sometimes your pharmaceutical research may call for large scale processing. With the *IncuSafe* MCO-80IC large scale reach-in incubator, take your cell culture needs to greater levels by growing more cell lines at once. Improved decontamination technologies (24/7 Active Background Decontamination control with optional UV light) and CO<sub>2</sub> and temperature sensors allow for faster turnaround and higher cell yield.

## PREVENTATIVE CONTAMINATION CONTROL

- Incubator interior and plenums made from PHCbi's exclusive inCu saFe® germicidal, copper-enriched stainless steel.
- Heated glass door and door frame heater prevent condensation.
- Optional UV sterilisation system for humidity reservoir.

## HUMIDITY SELECTION AND OPTIONAL UV STERILISATION

As standard, the MCO-80IC offers a choice of normal and high humidity modes for different application needs. For reliability and reduced maintenance the humidity reservoir heater is located on the outside wall of the reservoir and is not susceptible to corrosion or scaling through contact with water. An optional auto-fill 20 litre secondary water tank (Model MCO-80AS) provides an additional water supply to the humidity reservoir.

PHCbi's patented and laboratory proven SafeCell UV sterilisation system (option) is employed to sterilise the humidifying water reservoir and help minimise contamination concerns.

## CO<sub>2</sub> CONTROL - FASTER RECOVERY & LOWER GAS CONSUMPTION

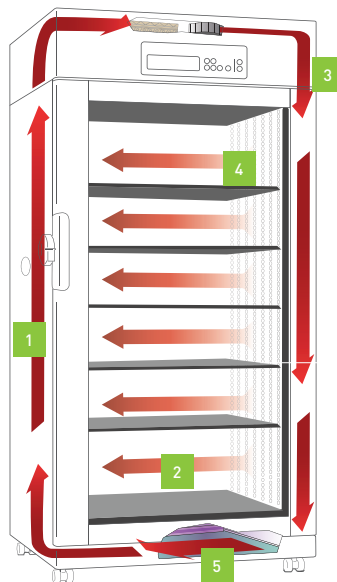
PHCbi's large scale cell culture incubator has been designed specifically for critical applications in pharmaceutical, biotechnology and clinical investigation. Large chamber capacity applications require special consideration of gas usage and

	PHCBI MCO-80IC			COMPETITOR MODEL		
Door Openings (Number per day)	0	2 x 30 sec	2 x 60 sec	0	2 x 30 sec	2 x 60 sec
CO <sub>2</sub> Consumption (litres per day)	280 l/day	440 l/day	457 l/day	597 l/day	728 l/day	752 l/day
30kg CO <sub>2</sub> Cylinder Retention Time*	60 days	39 days	37 days	28 days	23 days	23 days

\* Test conditions: Set temperature = 37°C, set CO<sub>2</sub> = 5%, Ambient temperature = 20°C.  
 \* All values are actual test values for reference only, and cannot be guaranteed in operation.

## HORIZONTAL LAMINAR AIRFLOW SYSTEM

The MCO-80IC features a cross-shelf horizontal airflow system, which promotes optimum temperature and CO<sub>2</sub> uniformity throughout the incubator and contributes to rapid recovery after door openings. The conditioned air is directed evenly through the incubator using perforated wall plenums made from PHCbi's exclusive inCu saFe® copper-enriched stainless steel. The horizontal airflow helps to maintain uniform air circulation and even temperature distribution when samples are placed in the incubator.



1. Access ports (each side, 40mm).
2. Horizontal laminar airflow system maintains accurate temperature and CO<sub>2</sub> control and uniformity at all shelf levels, top-to-bottom, front-to-back.
3. Humidified air minimizes potential for cell culture media desiccation.
4. Perforated sidewall panels right (pressure) and left (negative pressure) assure a positive, gentle airflow from right to left.
5. Optional SafeCell® UV sterilisation system provides sterilisation of the humidity reservoir.

recovery times. PHCbi's proprietary IR sensor with P.I.D. CO<sub>2</sub> control algorithm is paramount to the industry's leading design. An optional inner door system (MCO-80ID-PW) is also available to enhance these results further.

# SPECIFICATIONS

Model: MCO-80IC-PE

IncuSafe Reach In CO <sub>2</sub> Incubator		
Model Number		MCO-80IC-PE
External Dimensions (W x D x H) <sup>1)</sup>	mm	986 x 853 x 2040
Internal Dimensions (W x D x H)	mm	806 x 693 x 1524
Volume	liters	851
Net Weight	kg	275
Performance		
Temperature Control Range & Fluctuation	°C	AT +5 to 50 (AT; 20 to 35)
Temperature Uniformity <sup>2)</sup>	°C	±0.5
CO <sub>2</sub> Control Range & Fluctuation <sup>3)</sup>	%	0 ~ 20, ±0.15
Humidity Level & Fluctuation	%RH	Normal mode; >80% R.H., High mode; > 90% R.H.
Control		
Temperature Sensor		Thermistor
CO <sub>2</sub> Sensor		IR
Display		LED
Construction		
Exterior Material		Painted steel
Interior Material		SS copper alloyed
Insulation Material		PUF
Heating Method		N (laminar airflow)
Outer Door	qty	1 double paned glass
Outer Door Lock		N
Field Reversible Door		Y
Inner Doors	qty	Option
Shelves	qty	5
Shelf Dimensions (W x D x H)	mm	30
Max. Load per Shelf	kg	150
Max. Shelf Capacity	qty	5
Access Port	qty	2
Access Port Position		Left and right hand side
Access Port Diameter	∅ mm	40
Alarms		
Power Failure		R
Out of Temperature Setting		V-B-R
High Temperature		V-B-R
Out of CO <sub>2</sub> Setting		V-B-R
Water level		V
Door open		V
Electrical and Noise Level		
Power Supply	V	230
Frequency	Hz	50
Noise Level	dB	33
Options		
SafeCell UV System		MCO-80UVS-PE
Multiple Inner Doors		MCO-80ID-PW (5 small doors)
CO <sub>2</sub> Gas Pressure Regulator		MCO-100L-PW
N <sub>2</sub> Gas Pressure Regulator		MCO-80GC-PW
Automatic CO <sub>2</sub> Cylinder Changeover System		-
Semi-automatic one point Gas Calibration Kit		MCO-80ST-PW
Roller bottle rack mounting kit		MCO-80RBS-PW
Automatic water supply system kit		MCO-80AS-PW

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections.  
<sup>2)</sup> Ambient temp 25°C, settings 37°C, CO<sub>2</sub> 5%, no load  
<sup>3)</sup> Nominal value

Dimensions MCO-80IC-PE

