

MCO-170ACL-PA

# CytoGrow

CO<sub>2</sub> Incubator

5.8 cu.ft. | 165 L



MCO-170ACL-PA



The CytoGrow CO<sub>2</sub> incubator includes strategic upgrades designed to improve performance, contamination control and user interface for establishing and maintaining a safe *in vitro* cell culture environment.

## Unified Controller

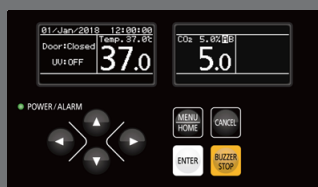
A central intuitive control panel with graphic user interface simplifies operation and improves visibility of key performance parameters. An organic LED input/output display creates an ergonomically friendly selection of all functions including temperature and CO<sub>2</sub> setpoints and alarm deviation limits for temperature and CO<sub>2</sub>. A USB data port permits download of logged performance and event information.

## Easier to Clean

The slide-out perforated stainless steel shelves rest securely in integrated shelf channels molded into the left and right side walls, eliminating the need for troublesome shelf brackets and clips. Molded shelf channels reduce the amount of interior parts by up to 80%. Perforated shelves promote natural temperature and gas uniformity.

## Elimination of Condensation

The innovative Peltier powered dew stick located in the interior chamber draws condensation away from the inner door, outer door and inside inCu-saFe<sup>®</sup> copper enriched stainless steel surfaces. The dew stick returns moisture to the humidity reservoir and arrests contamination before it can destroy cell cultures. Interior temperature control and uniformity are not affected.



## Central Management

The microprocessor controller manages all incubator functions and user inputs through an arrow prompted menu. Notifications include actual temperature, actual CO<sub>2</sub>, door status, UV status and deviation alarms. A thermal conductivity CO<sub>2</sub> sensor maintains setpoint to within 0.1% and reduces any need for periodic calibration. A USB port on the front panel permits a .csv download of temperature, CO<sub>2</sub>, deviations and events for permanent recordkeeping.



## Germicidal Barriers

An optional built-in UV lamp automatically destroys airborne contaminants through serial dilution of air that gently circulates through a rear plenum. The inCu-saFe copper enriched stainless steel alloy creates an internal germicidal barrier against airborne contaminants. Unlike pure copper, the inCu-saFe surface will not discolor or corrode due to CO<sub>2</sub> exposure over time.



## Reproducibility Assured

Reduction of interior parts and condensation control helps minimize external factors that often complicate efforts to reproduce cell culture and other protocols. Stable temperature and CO<sub>2</sub> are quickly restored to setpoints after door openings, while relative humidity returns to an elevated state to prevent media desiccation.

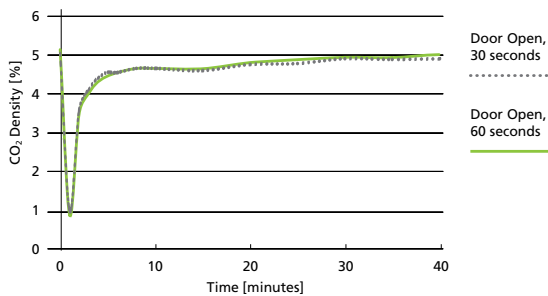


Model MCO-170ACL-PA

### Integrated Design

Cabinet construction offers an ideal combination of inner and outer door integrity with non-porous gasket surfaces to resist contamination. Two incubators can be stacked (optional stacking adapter required) to double available volume within the same floor space.

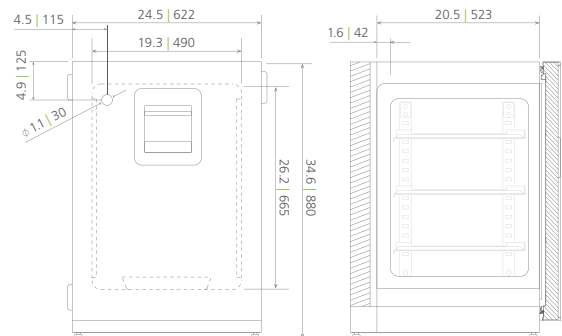
### Rapid CO<sub>2</sub> Density Recovery



The automatic CO<sub>2</sub> control system delivers precise, reliable and repeatable CO<sub>2</sub> control. The CO<sub>2</sub> setpoint is adjustable from 0% to 20%. CO<sub>2</sub> sample port is integrated into the inner glass door.

### Dimensions

Unit : inch | mm



Model Number	MCO-170ACL-PA		With Optional UV Decontamination	
External Dimensions (W x D x H) <sup>1)</sup>	inches   mm	24.4 x 28.7 x 35.6	620 x 730 x 905	
Internal Dimensions (W x D x H)	inches   mm	19.3 x 20.6 x 26.2	490 x 523 x 665	
Volume	cu.ft.   liters	5.8   165		
Net Weight	lbs   kg	163   74		
<b>Performance</b>				
Warranty <sup>2)</sup>		3 years parts and labor		
Temperature Control Range and Fluctuation <sup>3)</sup>	°C	+5 above ambient to +50, ± 0.1		
Temperature Uniformity <sup>3)</sup>	°C	± 0.25		
CO <sub>2</sub> Control Range and Fluctuation <sup>3)</sup>	%	0 to 20, ± 0.15		
Humidity Level & Fluctuation	% RH	95 at 37°C, ± 5		
<b>Control</b>				
Controller		Microprocessor – softkey 7 button menu		
Temperature Sensor		Thermistor		
Display	qty	White graphic OLED readable to 0.1 increments		
CO <sub>2</sub> Sensor		Thermal conductivity		
<b>Construction</b>				
Exterior Material		Painted steel (rear cover coated steel)		
Interior Material		Stainless steel copper enriched alloy		
Outer Door	qty	1		
Field Reversible Door		Included		
Humidity Pan	qty	1 (stainless steel with ½ cover)		
Condensation Management		Included		
Inner Door	qty	1; Sealing tempered glass with positive latch		
Shelves	qty	3 (stainless steel copper enriched alloy with integrated shelf support)		
Shelf Dimension (W x D x H)	inches   mm	18.5 x 17.7 x 0.5   470 x 450 x 12		
Max. Load per Shelf	lbs   kg	15   7		
Max. Total Load	lbs   kg	61   28		
Max. Shelf Capacity	qty	10		
Access Port / Position	qty	1; rear upper left		
Access Port Diameter	inches   mm	1.2   30 with silicone (non-VOC) stopper		
Leveling Feet	qty	4		
<b>Decontamination Control</b>				
InCu-safe Chamber, Plenum, Shelves, Shelf Channels	passive	Included (stainless steel copper enriched alloy)		
SafeCell UV Light System	passive/active	Optional	Included	
<b>Alarms</b> (V=Visual Alarm, Buzzer Alarm, R=Remote Alarm)				
Power Failure		R		
Temperature Deviation	high	V-B-R		
CO <sub>2</sub> Gas Deviation		V-B-R		
Door Open		V-B		
CO <sub>2</sub> Supply Empty		V-B-R		
UV Lamp Fault (optional)		V		
<b>Electrical</b>				
Power Supply		115V, 1Ø, 60Hz NEMA 5-15P requires NEMA 5-15R receptacle		
<b>Options</b>				
SafeCell UV Light System		MCO-170UVS-PA	Included	
CO <sub>2</sub> Gas Pressure Regulator	psi	0-15; MCO-100L		
InCu-safe Shelf		MCO-170ST-PW		
Reinforced Shelf		MCO-170RT-PW		
Stacking Kit <sup>4)</sup>		MCO-170PS-PW		
Stacking Plate <sup>4)</sup>		MCO-230SB-PW		
Roller Base		MCO-170RB-PW		
<b>Optional Communication System</b>				
Wireless, Cloud-based, Automatic Data Management		LabAlert® Monitoring System		

<sup>1)</sup>Exterior dimensions of main cabinet only, excluding handle and other external projections

<sup>2)</sup>Current warranty offered at time of printing and may be subject to change

<sup>3)</sup>Ambient temperature 23°C, setting 37°C, CO<sub>2</sub> 5%, no load

<sup>4)</sup>Allows for stacking MCO-170ACL onto any MCO-170 unit

Note: Additional options available. Contact PHC Corporation of North America

Specifications are subject to change without notice.

For latest specification information contact PHC Corporation of North America at info@us.phcd.com.

Performance data herein is based on independent testing at time of publication.

