

**Panasonic**

## CO<sub>2</sub> incubators

Optimising cell culture productivity  
MCO-170AIC



### Optimum cell growth

Panasonic MCO-170AIC CO<sub>2</sub> incubators offer outstanding quality in performance for successful cell growth.

Discovery powered by  
precision

# Optimising cell culture productivity

We understand that creating successful cell cultures requires a CO<sub>2</sub> incubator that offers the highest levels of precision, security and ease of use.

Our latest MCO-170AIC CO<sub>2</sub> incubators with Panasonic's innovative technologies offer outstanding quality in performance, maximise cell culture productivity and provide optimum results and reproducibility.

## Providing a precisely controlled environment for sensitive cell cultures

Delivering long-term performance, optimal cell viability and successful experiments, each Panasonic incubator provides precise control of CO<sub>2</sub> concentration and temperature, while remaining easy to operate and maintain. The MCO-170AIC CO<sub>2</sub> incubators support a reliable, stable cell culture environment across all shelf positions, meaning each and every cell is safely maintained under ideal conditions.

### DHA Direct heat and air jacket system

- Provides high precision temperature control for advanced uniformity and rapid recovery after door opening.

### **NEW** Improved insulation performance and lower running costs

- Delivers improved culture conditions and a reduction in electricity costs.<sup>1</sup>

### PID Control of CO<sub>2</sub> and temperature

- Precise control guarantees exceptional performance and optimum results.

### Dual IR CO<sub>2</sub> sensor

- Minimises the effect of temperature and humidity changes during and after door openings for outstanding CO<sub>2</sub> control and fast recovery.

## Optimum protection for your cell cultures

We know how valuable your cultures can be. Our advanced contamination control systems are designed to prevent the loss of your irreplaceable cell cultures with continuous background contamination control, all supported by a new security system.

### InCu saFe<sup>®</sup> copper-enriched stainless steel interior

- Protects cell cultures by eliminating surface contamination sources and mitigating the effect of airborne contaminants.

### Optional Safe Cell UV<sup>®</sup> with NEW increased UV lamp life

- Sterilises airborne and water pan contamination with 2.5 times longer lamp life.<sup>2</sup>

### **NEW** Optional electric door lock

- Provide enhanced security for your cultures and their conditions with an optional automatic electric door lock with password.



1) Compared to previous Panasonic 170 litre CO<sub>2</sub> incubators measured under equivalent operating conditions. (AT 20°C-23°C)

2) Compared to previous Panasonic 170 litre CO<sub>2</sub> incubators.





## Increasing work efficiency

We have designed our incubators with ease of use and efficiency in mind. By delivering a user friendly cell culture incubator with rapid systems and processes, Panasonic can help make your work as simple as possible.

### **NEW** More space for more cultures

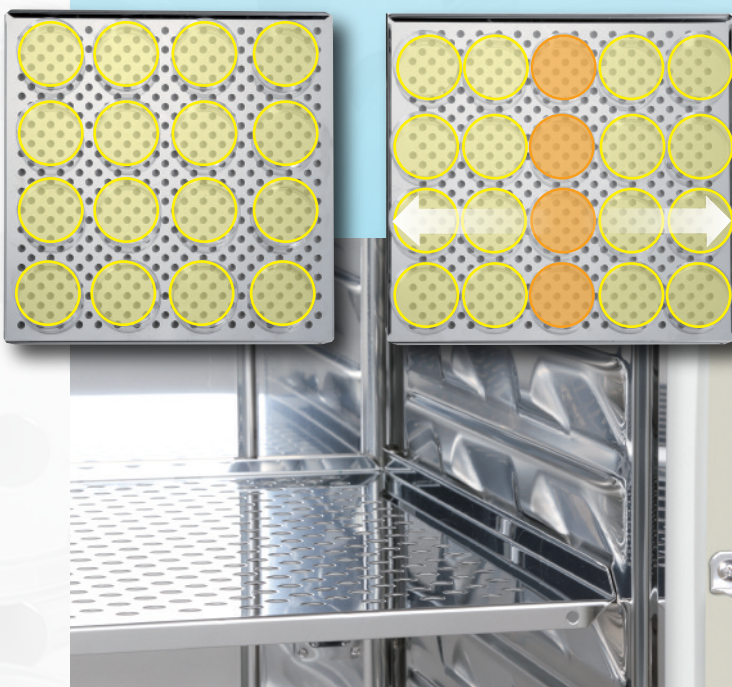
- In a laboratory environment it is important to make the most of all the space available. With new integrated shelf supports, the Panasonic MCO-170AIC CO<sub>2</sub> incubators provide space for up to 25% more culture vessels<sup>3</sup>.

### **NEW** Integrated shelf supports

- Save valuable time and reduce the risk of contamination with an easy to clean incubator interior featuring fully rounded corners and integrated shelf supports.

### Rapid sterilisation cycle

- Panasonic's H<sub>2</sub>O<sub>2</sub> vapour sterilisation cycle reduces downtime to less than 3 hours for complete, validatable decontamination for increased productivity.



### **NEW** Full colour LCD touch screen

- The user friendly full colour LCD touch screen provides clear information of incubator status with easy access to controller functions for fast, convenient set-up.

### **NEW** USB port

- Optimise cell culture protocols and adhere to standard operating procedures by conveniently transferring data to a USB memory stick to pass on to a PC. Logged parameters include chamber temperature, CO<sub>2</sub> level, door open status and alarms.



<sup>3</sup> The MCO-170AIC CO<sub>2</sub> incubators can accommodate 25% more 90mm dishes per shelf compared to previous Panasonic 170 litre CO<sub>2</sub> incubators.

# Specifications & options MCO-170AIC-PE



- The MCO-170AIC is designed for stacking, allowing one unit to be positioned on top of another, doubling interior volume without additional floor space.
- An optional roller base is available for stacked installations for easier mobility.

See table below for details.

## Double stacking table

Spacer for double-stacking		Upper unit
		MCO-170AIC
Lower unit	MCO-170AIC	MCO-170PS-PW
	MCO-19AIC(M)	MCO-170SB-PW
	MCO-18AC	
	MCO-20AIC	MCO-170SB-PW



The MCO-170AIC series are certified as a Class IIa Medical Device (93/42/EEC and 2007/47/EC) for medical purposes of culturing cells, tissues, organs and embryos.

## MCO-170AIC CO<sub>2</sub> incubators



### Characteristics

PUF = Rigid polyurethane foamed insulation  
 V = Visual alarm  
 B = Buzzer alarm  
 R = Remote alarm

MODEL	MCO-170AIC-PE		MCO-170AICUV-PE	MCO-170AICUVH-PE
<b>Dimensions</b>				
External dimensions (WxDxH) <sup>1)</sup>	mm	620 x 710 x 900		
Internal dimensions (WxDxH)	mm	490 x 523 x 665		
Volume	litres	165		
Net weight (approx)	kg	80		
<b>Performance</b>				
Temperature control range and fluctuation	°C	AT +5 ~ +50, ±0.1		
Temperature uniformity <sup>2)</sup>	°C	±0.25		
CO <sub>2</sub> control range and fluctuation	%	0 ~ 20, ±0.15		
Humidity level and fluctuation	%RH	95, ±5		
<b>Control</b>				
Temperature sensor		Thermistor		
CO <sub>2</sub> sensor		Dual IR		
Display		LCD touch screen		
<b>Construction</b>				
Exterior material		Painted steel (rear cover not painted)		
Interior material		SS copper alloyed		
Insulation material		Extruded polystyrene		
DHA heating system		Y		
Outer door	qty	1		
Outer door lock		option		
Reversible door		Y		
Inner door	qty	option	1	standard
Shelves	qty	4		
Max. load per shelf	kg	7		
Max. total load	kg	20		
Max. shelf capacity	qty	10		
Access port	qty	1		
- position		Rear		
- diameter	∅ mm	30		
<b>Alarms</b>				
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		
Door open		V-B		
<b>Electrical and noise level</b>				
Power supply	V	230		
Frequency	Hz	50		
Noise level <sup>3)</sup>	dB	29		
<b>Options</b>				
SafeCell UV <sup>®</sup> system		MCO-170UVS-PE <sup>4)</sup>	standard	standard
H <sub>2</sub> O <sub>2</sub> decontamination board		MCO-170HB-PE <sup>4)</sup>	MCO-170HB-PE <sup>4)</sup>	standard
Electric door lock with password		MCO-170EL-PW <sup>4)</sup>	MCO-170EL-PW <sup>4)</sup>	standard
H <sub>2</sub> O <sub>2</sub> vapour generator			MCO-HP-PW <sup>4)</sup>	
H <sub>2</sub> O <sub>2</sub> reagent, pack of 6 bottles			MCO-H202-PE	
Multiple inner doors			MCO-170ID-PW	
CO <sub>2</sub> gas pressure regulator			MCO-100L-PW	
Automatic CO <sub>2</sub> cylinder changeover system			MCO-21GC-PW	
Semi-automatic one point gas calibration kit			MCO-SG-PW	
InCu saFe <sup>®</sup> shelf (and brackets if required)			MCO-170ST-PW	
InCu saFe <sup>®</sup> half tray system			MCO-25ST-PW	
Double stacking bracket			MCO-170PS-PW	
Stacking plate			MCO-170SB-PW	
Roller base			MCO-170RB-PW	
<b>Optional communication systems<sup>5)</sup></b>				
Ethernet interface (LAN)			MTR-L03-PW	
Digital interface (RS232C/RS485)			MTR-480-PW	
Analogue interface (4-20mA)			MCO-420MA-PW	

Notes:

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections - See dimensions drawings on website for full details

<sup>2)</sup> ±0.25°C; ambient temp 23°C - 25°C, setting 37°C, CO<sub>2</sub> 5%, O<sub>2</sub> 5% (Multigas), no load

<sup>3)</sup> Nominal value

<sup>4)</sup> MCO-170AIC series requires MCO-170HB-PE, MCO-170EL-PW, MCO-HP-PW and SafeCell UV option for H<sub>2</sub>O<sub>2</sub> decontamination

<sup>5)</sup> MCO-18AC, -19M, -170AIC series, -20AIC and 5 series can only be fitted with one communications interface.

Appearance and specification are subject to change without notice.

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for more information:

[www.biomedical.panasonic.eu](http://www.biomedical.panasonic.eu)