



MCO-170M-PE

## IncuSafe

Multigas Incubators

161 L



So comfortable, your cells will feel *in vivo*

**IncuSafe**, Class IIa Medical Device Certified Multigas Incubators optimise mammalian cell cultures through variable CO<sub>2</sub> & O<sub>2</sub> control to simulate *in vivo* conditions. The MCO-170M helps to achieve more accurate results and higher reproducibility when culturing cells at controlled physiological oxygen levels.

### Reproduction of *in vivo* conditions

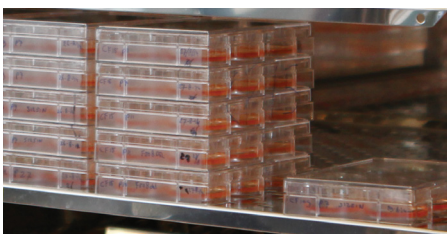
With a unique, solid-state, zirconia sensor for precise oxygen control (1-18%; 22-80%) the MCO-170M Multigas Incubator is able to reproduce the low oxygen concentrations found in many tissues and organs.

### Time-Saving Decontamination

The high-speed decontamination system uses vaporized hydrogen peroxide and UV light to safely clean the chamber in less than 3 hours, with at least a 6 log reduction of major contaminants.

### Ease of Use & Maintenance

A full colour, LCD, touch-screen panel allows full control, even with gloved hands. Transfer of data is easy via a USB port. The easy-to-clean interior features fully rounded corners and integrated shelf supports.



### Sensitive Cell Culturing

Culturing cells at physiological oxygen levels allows them to grow faster and live longer, and reduces the frequency of mutations.



### Efficient Workflows

Complete laboratory procedures and experiments more efficiently with less incubator downtime. Ideal for commercial applications.



### Intuitive Usability

Control and visibility of the internal conditions, such as CO<sub>2</sub>, O<sub>2</sub> levels, and temperature, is easy with the MCO-170M multigas incubator.

# IncuSafe Multigas Incubators



## Direct Heat and Air Jacket System

Achieves accurate, uniform, and highly responsive temperature control within the chamber, providing exceptional uniformity and rapid recovery after door-openings.

## Zirconia O<sub>2</sub> Sensor

The incubator's unique, solid-state, Zirconia O<sub>2</sub> sensor delivers precise control of physiological oxygen levels to simulate *in vivo* conditions.

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

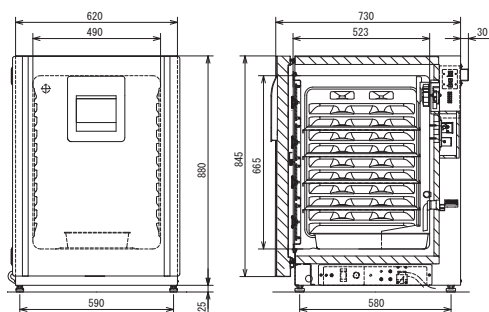
The incubator's Dual IR sensor and P.I.D control enables ultra-fast CO<sub>2</sub> recovery without overshoot, even following multiple door-openings.

## Active Background Decontamination

The exclusive inCu-saFe copper-enriched stainless steel alloy interior offers the germicidal properties of copper and the durability of stainless steel. The optional, isolated, SafeCell UV lamp decontaminates circulating air and water in the humidifying pan, without harming cultured cells.

## Condensation Management

With a unique antibacterial coating, the 'dew stick' – controlled by Peltier technology – condenses water on its surface, which then drips into the humidifying pan, preventing unwanted condensation in the chamber and possible contamination.



The MCO-170M 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.



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Model Number	MCO-170M-PE	MCO-170MUV-PE	MCO-170MUVH-PE
External Dimensions (W x D x H) <sup>1)</sup>	mm	620 x 710 x 905	
Internal Dimensions (W x D x H)	mm	490 x 523 x 665	
Volume	liters	161	
Net Weight	kg	79	
<b>Performance</b>			
Temperature Control Range & Fluctuation	°C	AT +5 ~ +50, ±0.1	
Temperature Uniformity <sup>2)</sup>	°C	±0.25	
CO <sub>2</sub> Control Range & Fluctuation <sup>3)</sup>	%	0 ~ 20, ±0.15	
O <sub>2</sub> control range & Fluctuation <sup>4)</sup>	%	1 -18 and 22 - 80, ±0.2	
Humidity Level & Fluctuation	%RH	95, ±5	
Sterilisation Method		H <sub>2</sub> O <sub>2</sub> Decontamination	
<b>Control</b>			
Temperature Sensor		Thermistor	
CO <sub>2</sub> Sensor		Dual IR	
O <sub>2</sub> Sensor		Stabilized Zirconia Sensor	
Display		LCD Touch Screen	
<b>Construction</b>			
Exterior Material		Painted Steel (rear cover not painted)	
Interior Material		Stainless Steel Copper-Enriched Alloy	
Insulation Material		Expandable Polystyrene Beads	
Heating Method		Direct Heat & Air Jacket System	
Outer Door	qty	1	
Outer Door Lock		Optional	Optional      Standard
Field Reversible Door		Included	
Inner Doors	qty	4 gastight - made of tempered glass	
Shelves	qty	3 x Stainless Steel Copper-enriched Alloy	
Shelf Dimensions (W x D x H)	mm	470 x 450 x 12	
Max. Load per Shelf	kg	7	
Max. Shelf Capacity	qty	10	
Access Port	qty	1	
Access Port Position		Rear Upper Left	
Access Port Diameter	∅ mm	30	
<b>Alarms</b> (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)			
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	
Out of O <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>5)</sup>	dB	25	
<b>Options</b>			
SafeCell UV <sup>®</sup> System	MCO-170UUVS-PE <sup>6)</sup>	Standard	
H <sub>2</sub> O <sub>2</sub> Decontamination Board	MCO-170HB-PE <sup>6)</sup>	Standard	
Electric Door Lock with Password	MCO-170EL-PW <sup>6)</sup>	Standard	
H <sub>2</sub> O <sub>2</sub> Vapor Generator	MCO-HP-PW <sup>6)</sup>		
H <sub>2</sub> O <sub>2</sub> Reagent, pack of 6 bottles	MCO-H202-PE		
Multiple Inner Doors	Standard		
CO <sub>2</sub> Gas Pressure Regulator	MCO-010R-PW		
N <sub>2</sub> Gas Pressure Regulator	MCO-010R-PW		
Automatic CO <sub>2</sub> Cylinder Changeover System	MCO-216C-PW		
Semi-automatic one point Gas Calibration Kit	MCO-SG-PW		
InCu-saFe <sup>®</sup> Shelf	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>7)</sup></b>			
Analogue interface (4-20mA)	MCO-420MA-PW		

Appearance and specifications are subject to change without notice.

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

<sup>2,3,4)</sup> Ambient temperature 23°C, setting 37°C, CO<sub>2</sub> 5%, O<sub>2</sub> 5%, no load

<sup>5)</sup> Nominal value

<sup>6)</sup> MCO-170M 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>7)</sup> MCO-170M series can only be fitted with one communications interface.

<sup>8)</sup> If stacking two incubators, make sure the double-stacking dedicated securing hardware and spacer are used