



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 CO₂ & O₂ 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

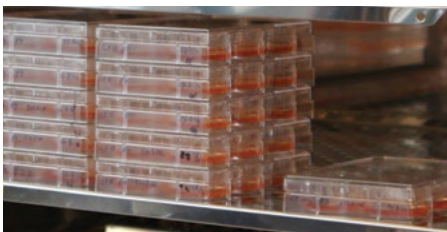
With a unique, solid-state, zirconia sensor for precise oxygen control (1-18%; 22-80%) the MCO-170M Multigas Incubator is able to reproduce the low oxygen concentrations found in many tissues and organs.

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 CO₂, O₂ 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 O₂ Sensor

The incubator's unique, solid-state, Zirconia O₂ sensor delivers precise control of physiological oxygen levels to simulate *in vivo* conditions.

Dual IR CO₂ Sensor

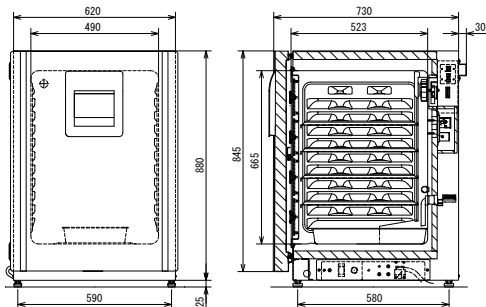
The incubator's Dual IR sensor and P.I.D control enables ultra-fast CO₂ recovery without overshoot, even following multiple door-openings.

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.



PHC Europe B.V.

| Model Number | | MCO-170M-PE | MCO-170MUV-PE | MCO-170MUVH-PE |
|--|--------|---|---------------|----------------|
| External Dimensions (W x D x H) ¹⁾ | 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 | | |
| Performance | | | | |
| Temperature Control Range & Fluctuation | °C | AT +5 ~ +50, ±0.1 | | |
| Temperature Uniformity ²⁾ | °C | ±0.25 | | |
| CO ₂ Control Range & Fluctuation ³⁾ | % | 0 ~ 20, ±0.15 | | |
| O ₂ control range & Fluctuation ⁴⁾ | % | 1 ~ 18 and 22 ~ 80, ±0.2 | | |
| Humidity Level & Fluctuation | %RH | 95, ±5 | | |
| Sterilisation Method | | H ₂ O ₂ Decontamination | | |
| Control | | | | |
| Temperature Sensor | | Thermistor | | |
| CO ₂ Sensor | | Dual IR | | |
| O ₂ Sensor | | Stabilized Zirconia Sensor | | |
| Display | | LCD Touch Screen | | |
| Construction | | | | |
| 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 | | |
| Alarms (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 ₂ Setting | | V-B-R | | |
| Out of O ₂ setting | | V-B-R | | |
| Door open | | V-B | | |
| Electrical and Noise Level | | | | |
| Power Supply | V | 230 | | |
| Frequency | Hz | 50 | | |
| Noise Level ⁵⁾ | dB | 25 | | |
| Options | | | | |
| SafeCell UV [®] System | | MCO-170UVS-PE ⁶⁾ | Standard | |
| H ₂ O ₂ Decontamination Board | | MCO-170HB-PE ⁶⁾ | Standard | |
| Electric Door Lock with Password | | MCO-170EL-PW ⁶⁾ | Standard | |
| H ₂ O ₂ Vapor Generator | | MCO-HP-PW ⁶⁾ | | |
| H ₂ O ₂ Reagent, pack of 6 bottles | | MCO-H202-PE | | |
| Multiple Inner Doors | | Standard | | |
| CO ₂ Gas Pressure Regulator | | MCO-100L-PW | | |
| N ₂ Gas Pressure Regulator | | MCO-100L-PW | | |
| Automatic CO ₂ Cylinder Changeover System | | MCO-216C-PW | | |
| Semi-automatic one point Gas Calibration Kit | | MCO-SG-PW | | |
| InCu-saFe [®] Shelf | | MCO-170ST-PW | | |
| InCu-saFe [®] Half Tray System | | MCO-25ST-PW | | |
| Double Stacking Bracket* | | MCO-170PS-PW | | |
| Stacking Plate* | | MCO-170SB-PW | | |
| Roller Base | | MCO-170RB-PW | | |
| Optional communication systems⁷⁾ | | | | |
| Ethernet interface (LAN) | | MTR-L03-PW | | |
| Digital interface (RS232C/RS485) | | MTR-480-PW | | |
| Analogue interface (4-20mA) | | MCO-420MA-PW | | |

¹⁾ Exterior dimensions of main cabinet only, excluding handle and other external projections

²⁾ Ambient temperature 23°C, setting 37°C, CO₂ 5%, O₂ 5%, no load

³⁾ Nominal value

⁴⁾ MCO-170M series requires MCO-170HB-PE, MCO-170EL-PW, MCO-HP-PW and SafeCell UV option for H₂O₂ decontamination

*If stacking two incubators, make sure the double-stacking dedicated securing hardware and spacer are used

⁷⁾ MCO-170M series can only be fitted with one communications interface.



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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.