

MBINCO-HT series, chamber volume:

50L

80L

150L

180L



COLO.SCIENCE • TECHNICAL SPECIFICATION

MBINCO-HT

CO2 Incubator Series • 50, 80, 150 and 180 L • RT+5 °C to 55 °C • CO2 0 to 20 % • Air Jacket • Built-in Chamber Sterilization

MBINCO-HT CO2 incubators hold cell, tissue and microbial cultures at a stable temperature, CO2 concentration and high humidity. A six-side air-jacket heating system with a designed air duct gives good temperature uniformity and fast recovery after the door is opened. An infrared sensor measures CO2 from 0 to 21 %, and the controller holds it from 0 to 20 %. Humidity comes from a water pan at the bottom of the chamber, with a large evaporation surface and a low-water alarm. A heated door stops condensation on the inner glass door, and a HEPA filter and an intake filter keep the chamber air clean. Between runs the chamber is decontaminated by a built-in sterilization cycle. The series has four chamber sizes, from 50 L to 180 L, all run from the same 5.0-inch touch screen.

AIR JACKET, 6-SIDE HEATING

RT+5 °C to 55 °C

INFRARED CO2 SENSOR

CO2 0-20 %

5.0-INCH TOUCH SCREEN

HEPA FILTER

HEATED DOOR

MOIST-HEAT STERILIZATION

HIGH-TEMPERATURE STERILIZATION

50 • 80 • 150 • 180 L

Document type: Technical Specification Sheet

Product: MBINCO-HT CO2 incubator series • 50 L, 80 L, 150 L, 180 L

SKU: PRO7049 • PRO7050 • PRO7051 • PRO7052

Format: A4 landscape • CORE-TECHSPEC 1.2

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INCUBATION — OVERVIEW

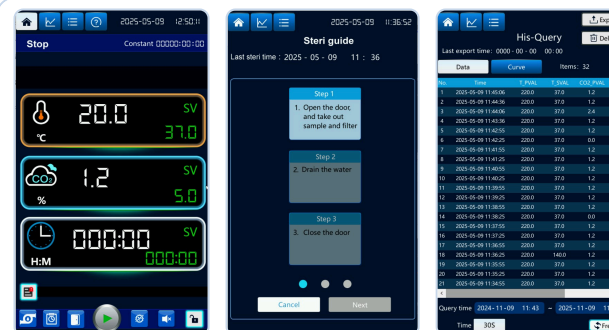
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HEATING ONLY RT+5 °C to 55 °C



MBINCO-HT • air-jacket CO2 incubator with 5.0-inch touch screen



Controller screens • home view, sterilization guide, history query

5.0-inch touch screen

Temperature, CO2 and timer on one view, a step-by-step sterilization guide and a searchable history of measured values.

SERIES

MBINCO-HT • 4 sizes
PRO7049 to PRO7052

ADDRESS / HQ

Polje ob Sotli 4
SI-3255, Slovenia

CONTACT

sales@colo.si
+386 70 713 437

MBINCO-HT • technical specification

Air-jacket CO2 incubators, 50 to 180 L, RT+5 °C to 55 °C, infrared CO2 sensor, 0 to 20 % CO2, built-in chamber sterilization

RT+5 °C TO 55 °C CO2 0-20 % IR SENSOR AIR JACKET HEPA 50-180 L — Four chamber sizes, one controller

Product Overview

Application profile

Cell and tissue culture: mammalian cell lines, primary cells and stem cells in flasks, dishes and plates.

Microbiology: culture of capnophilic bacteria that need a raised CO2 atmosphere.

Virology and immunology: virus propagation in cell culture, hybridoma and antibody work.

Pharmaceutical and biotech QC: cell-based assays and cytotoxicity tests at 37 °C and 5 % CO2.

Teaching and research labs: one incubator size per workload, from 50 L to 180 L.

Key features

Control: intelligent PID control on a 5.0-inch touch screen; temperature and CO2 shown side by side.

Temperature: RT+5 °C to 55 °C, resolution 0.1 °C, fluctuation ± 0.1 °C, uniformity ± 0.3 °C.

CO2: infrared sensor, measuring range 0.0 to 21.0 %, control range 0.0 to 20.0 %, accuracy ± 0.1 %.

Humidity: water pan in the chamber base with a large evaporation surface; water level sensor and low-water alarm.

Timer: 0 to 9999 min with timing-wait; fixed-value operation, timed operation, automatic stop.

Sterilization: moist-heat cycle 90 °C; high-temperature cycle up to 180 °C on the 80, 150 and 180 L models.

Access and records: three user levels with passwords; alarm and operation log, history curves, USB export.

Safety: over-temperature, CO2 concentration, door-open and low-water alarms; power-off parameter memory.

Why an air-jacket CO2 incubator

Air jacket: heated air around the chamber on six sides gives even temperature without a water jacket to fill or drain.

Stable CO2: the infrared sensor does not drift with humidity the way a thermal-conductivity sensor does.

Fast recovery: the designed air duct brings temperature back quickly after the door is opened.

No condensation on the glass door: the door is heated, so the cultures stay visible.

Clean chamber: HEPA filter, intake filter and a built-in sterilization cycle between runs.

Core technical summary

Parameter	Specification
Series	MBINCO-HT • 50, 80, 150, 180 L
Product type	CO2 incubator, air jacket
Temperature range	RT+5 °C to 55 °C
Temperature stability	± 0.1 °C fluctuation • ± 0.3 °C uniformity
CO2 control	0.0 to 20.0 %, ± 0.1 %
CO2 sensor	infrared, 0.0 to 21.0 %
Humidification	water pan, natural evaporation
Sterilization	moist heat 90 °C • high temperature up to 180 °C*
Supply	AC 220 V, 50/60 Hz • 0.4 to 0.7 kW

TEMPERATURE
RT+5 °C to 55 °C

CO2 CONTROL
0-20 % • ± 0.1 %

UNIFORMITY
 ± 0.3 °C

CHAMBER VOLUME
50 • 80 • 150 • 180 L

RT = room temperature; the range starts 5 °C above the temperature of the room the incubator stands in. * High-temperature sterilization up to 180 °C on the 80, 150 and 180 L models; the 50 L model sterilizes with the moist-heat cycle at 90 °C. CO2 gas supply (cylinder with pressure regulator) is not part of the incubator. Suitability for a specific method is confirmed in the COLO.Science quotation.

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Technical Specifications • common to all models

Parameter	Value	Parameter	Value
Heating system	air jacket, six-side heating, designed air duct	Control	intelligent PID, 5.0-inch colour touch screen
Temperature range	RT+5 °C to 55 °C	Display	temperature and CO2 concentration side by side
Temperature resolution	0.1 °C	Timer	0 to 9999 min, with timing-wait function
Temperature fluctuation	±0.1 °C	Operating modes	fixed value, timed operation, automatic stop
Temperature uniformity	±0.3 °C	Sterilization	moist heat 90 °C; high temperature up to 180 °C (80, 150, 180 L)
CO2 sensor	infrared, measuring range 0.0 to 21.0 %	Additional functions	sensor offset correction, overshoot self-tuning, parameter lock, power-off memory
CO2 control range	0.0 to 20.0 %	Sensors	PT100, infrared CO2 sensor, water level sensor
CO2 control accuracy	±0.1 %	Alarms	over-temperature, CO2 concentration, door open, low water level
Humidification	water pan in the chamber base, natural evaporation	User access	three levels: operator, maintenance, administrator
Inner chamber	stainless steel SUS304	Data	history curves, alarm and operation log, USB export (CSV or PDF)
Outer cabinet	cold-rolled steel, electrostatic powder coating	Air cleaning	HEPA filter in the chamber, intake filter
Gas port	Ø 27 mm, rear, with test port	Door	outer door with heated glass inner door

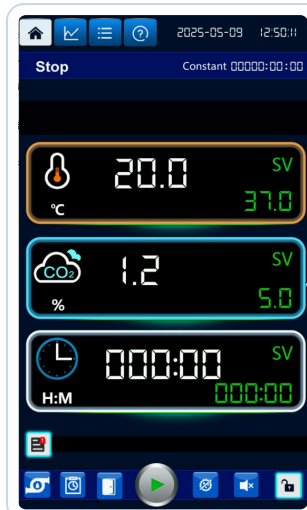
Model comparison

Parameter	MBINCO-HT 50L PRO7049	MBINCO-HT 80L PRO7050	MBINCO-HT 150L PRO7051	MBINCO-HT 180L PRO7052
Chamber volume	50 L	80 L	150 L	180 L
Inner chamber W × D × H	345 × 375 × 388 mm	404 × 439 × 454 mm	509 × 472 × 632 mm	540 × 500 × 670 mm
Exterior W × D × H	500 × 500 × 655 mm	585 × 585 × 766 mm	593 × 746 × 842 mm	629 × 791 × 893 mm
Packing W × D × H	620 × 620 × 855 mm	705 × 705 × 966 mm	713 × 866 × 1042 mm	749 × 911 × 1093 mm
Shelves, standard / maximum	2 / 4	2 / 5	2 / 6	2 / 7
Chamber sterilization	moist heat 90 °C	moist heat 90 °C · high temp. up to 180 °C	moist heat 90 °C · high temp. up to 180 °C	moist heat 90 °C · high temp. up to 180 °C
Rated power	0.4 kW	0.5 kW	0.6 kW	0.7 kW
Supply · current	AC 220 V, 50/60 Hz · 1.8 A	AC 220 V, 50/60 Hz · 2.3 A	AC 220 V, 50/60 Hz · 2.7 A	AC 220 V, 50/60 Hz · 3.2 A
Net / gross weight	55 / 70 kg	97 / 112 kg	93 / 108 kg	115 / 130 kg

RT = room temperature. Shelf load 15 kg per shelf; shelf spacing 35 mm. Standard delivery: 2 shelves and 4 shelf supports; further shelves up to the maximum are ordered separately. Dimensions in mm, W × D × H. Mains supply 220 V single phase; other voltages on request.

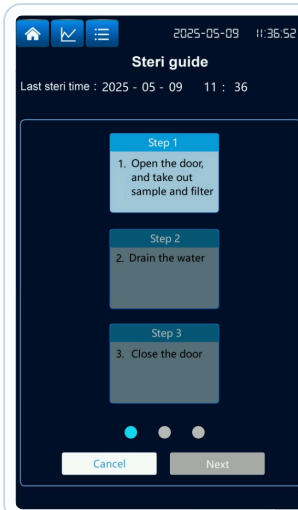
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Controller, Sterilization and Accessories



Home view

Measured and set temperature, CO2 and run time; run, stop, light and lock keys.



Sterilization guide

Step-by-step prompts: remove samples and filter, drain the water pan, close the door.



Directory

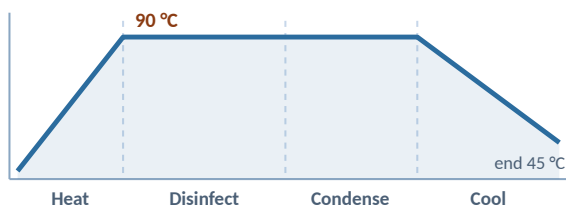
Program editing, data, parameter settings and system settings by user level.



History query

Temperature and CO2 records by date and time; export to a USB drive.

Moist-heat sterilization · all models



Four stages: heating to 90 °C, disinfection at 90 °C, condensation with the bottom heater off, cooling to the end temperature.

Settable: temperature, disinfection time and condensation time.

High-temperature sterilization · 80, 150, 180 L



Three stages: heating to the sterilization temperature, holding for the set time, cooling to the end temperature.

Before the cycle: samples and filter are taken out and the water pan is drained, as the guide on the screen shows.

Standard and optional accessories

Item	Supply
Shelf	standard 2 pcs; up to 4 / 5 / 6 / 7 by model
Shelf supports	standard 4 pcs
Micro printer	option · prints records from the controller
Infrared CO2 sensor for the 90 °C moist-heat cycle	option
CO2 gas supply	cylinder and pressure regulator by the user

Sterilization reminder: the controller can prompt when the set interval since the last cycle has passed.

Profiles are schematic, not to scale. Stage times and temperatures are set in the controller; the values above are the upper sterilization settings for each model. Follow the sterilization guide on the screen before each cycle.

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MBINCO-HT CO2 incubator • 50, 80, 150 and 180 L share one design

Ordering information

Item	SKU
MBINCO-HT 50L CO2 incubator, 50 L	PRO7049
MBINCO-HT 80L CO2 incubator, 80 L	PRO7050
MBINCO-HT 150L CO2 incubator, 150 L	PRO7051
MBINCO-HT 180L CO2 incubator, 180 L	PRO7052
Additional shelf • micro printer • IR CO2 sensor for 90 °C cycle	option
Standard delivery	Incubator, 2 shelves, 4 shelf supports

Configuration checklist

Culture vessels: flasks, dishes or plates and how many per run decide the chamber size and the number of shelves.

CO2 setpoint: usually 5 %; the incubator controls 0 to 20 %.

Sterilization: moist heat 90 °C on all models; choose 80 L or larger for high-temperature sterilization up to 180 °C.

Gas supply: CO2 cylinder with a pressure regulator, connected to the CO2 inlet.

Place of use: stable, level floor or bench; free space around the cabinet; 220 V socket with earth.

SUPPLIER AND SUPPORT

COLO Lab Experts

Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: Send the cell type or organism, the vessels and the number per run, and whether you need high-temperature sterilization. COLO.Science will confirm the size, the shelves and the delivery time.

QUICK CONTACT

🌐 colo.si

✉ sales@colo.si

☎ [+386 70 713 437](tel:+38670713437)

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Which size fits your lab?

Send the vessels, the number per run and the sterilization you need. COLO.Science will confirm the model, the shelves and the delivery time.

Web: colo.si

Ask us:

Price and current discount, delivery time, installation, application support and service — write to sales@colo.si or call us.

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