

# CO<sub>2</sub> incubators



C | CB series





# CO<sub>2</sub> incubators

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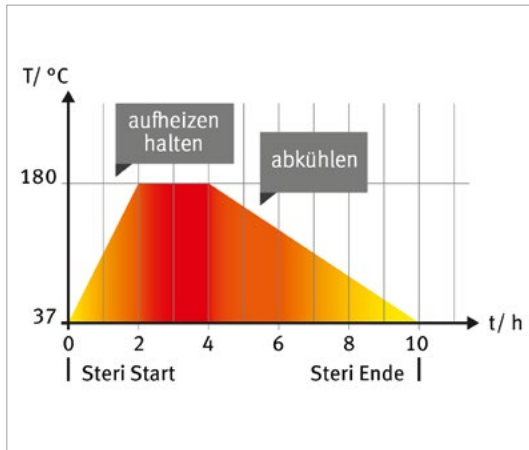
Every CO<sub>2</sub> incubator from BINDER guarantees optimum, reproducible growth conditions for cell cultures. The new silicone-jacket heating system and Permadyry technology eliminate the risk of condensation. With 180 °C hot air sterilization, bacteria and spores can be reliably killed as necessary. The unique, seamless deep-drawn inner chamber without built-in obstructions makes cleaning very simple. Important advantages for uniformly good cell and tissue cultivation offered by BINDER Series C and CB CO<sub>2</sub> incubators.

## PRODUCT SELECTION CO<sub>2</sub> INCUBATORS

Features	Series C › Page 6	Series CB › Page 9
<b>Model</b>		
Model 60	–	•
Model 170	•	•
Model 220	–	•
<b>General data</b>		
Temperature range 6 °C above ambient temperature to [°C]	50	–
Temperature range 4-7 °C above ambient temperature to [°C]	–	60
Humidity range [% RH]	90...95	50...95
Ethernet interface	•	•
USB interface	•	•
Plug-in system	Wire frame	Flanges
Humidification system	Water pan	Double water pan
CO <sub>2</sub> sensor	IR, plug in	IR, can be sterilized
<b>Controller and timer functions</b>		
Controller display	LCD	LCD color display
Class 3.1 independent temperature safety device	•	•
Temperature alarm, acoustic	•	•
Temperature alarm, visual	•	•

•Standard equipment

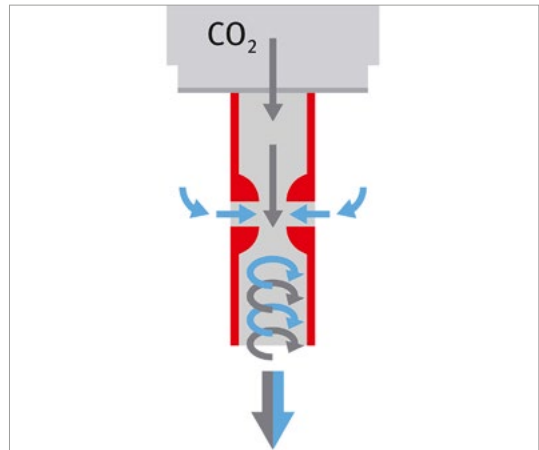
## ADVANTAGES AT A GLANCE



### MINIMAL RISK OF CONTAMINATION

Series C, CB

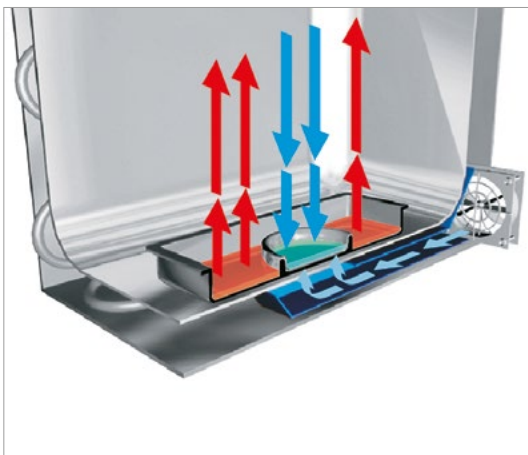
With 180 °C hot-air sterilization, complete sterilization of the entire interior is available at the push of a button. In the CB series, the CO<sub>2</sub> sensor is also sterilized.



### OPTIMUM CELL GROWTH

Series C, CB

Stable pH values thanks to drift-free CO<sub>2</sub> sensor technology and homogeneous CO<sub>2</sub> distribution using the BINDER gas mixing head according to the Venturi principle.



### PATENTED HUMIDITY MANAGEMENT

Series CB

Active humidity management provide high humidity values of 90% to 95% RH with minimal evaporation. The PERMADRY™ double wall humidity system ensures dry interior walls.



### THE "LESS IS MORE" INTERIOR CONCEPT

Series CB

Our interior ensure quick and easy cleaning due to the deep-drawn inner chamber created from a single piece of stainless steel without built-in obstructions. No consumables are required.

## Series C | with hot air sterilization

Series C incubators are suitable for routine cell cultivation applications: They are free from contamination due to 180 °C hot-air sterilization and reliable pH stability thanks to the drift-free infrared CO<sub>2</sub> measurement system.



Model C 170

### MAIN FEATURES

- Temperature range: room temperature plus 6 °C to 50 °C
- Humidity range: 90 to 95% RH
- Auto-sterilization with hot air at 180 °C
- Humidification system with condensation protection
- CO<sub>2</sub> gas-mixing jet with Venturi effect
- CO<sub>2</sub> sensor with infrared technology
- LCD to display temperature and CO<sub>2</sub> along with additional information and alarms
- Tightly-sealed inner door made of tempered safety glass
- Seamless, deep-drawn inner stainless steel chamber
- 3 perforated stainless steel shelves
- Stack-compatible with CB 170

### AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
C 170	170	> <a href="https://go2binder.com/en-C170">go2binder.com/en-C170</a>

## TECHNICAL DATA

Description	C 170
<b>Measures</b>	
Interior volume [L]	170
Net weight of the unit (empty) [kg]	90
Permitted load [kg]	40
Load per rack [kg]	10
Wall clearance back [mm]	100
Wall clearance sidewise [mm]	50
<b>Internal Dimensions</b>	
Width [mm]	560
Height [mm]	600
Depth [mm]	505
<b>Housing dimensions not incl. fittings and connections</b>	
Width net [mm]	680
Height net [mm]	870
Depth net [mm]	715
<b>Performance Data Temperature</b>	
Temperature range 6 °C above ambient temperature to [°C]	50
Temperature variation at 37 °C [± K]	0.3
Temperature fluctuation [± K]	0.1
Recovery time after 30 seconds door open at 37 °C [min]	8
<b>Performance Data Climate</b>	
Humidity range [% RH]	90...95
<b>CO<sub>2</sub>-Data</b>	
CO <sub>2</sub> range [Vol.-% CO <sub>2</sub> ]	0...20
CO <sub>2</sub> measurement	IR
<b>Electrical data</b>	
Nominal power (version 120 V) [kW]	1.3
Nominal power (version 230 V) [kW]	1.3
<b>Fixtures</b>	
Number of shelves (std./max.)	3/8

## ORDERING INFORMATION [Art. No.]

**Further details:** Go to [www.binder-world.com](http://www.binder-world.com) > Search > Enter Article Number

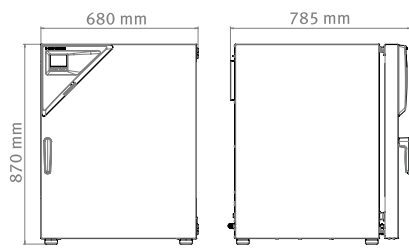
Voltage	Option model	C 170
230 V 1~ 50/60 Hz	Standard	9040-0163
120 V 1~ 50/60 Hz	Standard	9040-0164

► You will find a selection of options, accessories and services suitable for each product on page 12

**DIMENSIONS incl. fittings and connections [mm]**

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C 170





## Series CB | with hot air sterilization and heat sterilizable CO<sub>2</sub> sensor

The BINDER CB series CO<sub>2</sub> incubator is the premium class among the CO<sub>2</sub> incubators. It is suitable for all sensitive incubation applications and ensures optimal cell growth. A BINDER CB series CO<sub>2</sub> incubator can perform complex cultivation experiments as well as specific environmental conditions.



Model CB 170

### MAIN FEATURES

- Temperature range: from 4 °C via ambient temperature up to 60 °C
- Humidity range: 90 to 95% RH
- CO<sub>2</sub> control range: 0 to 20 vol% CO<sub>2</sub>
- O<sub>2</sub> control range: 0.2 to 20 vol% O<sub>2</sub> for versions with O<sub>2</sub> control
- Alternative O<sub>2</sub> control range: 10 to 95 vol% O<sub>2</sub>, option for versions with O<sub>2</sub> control
- Humidity control range: 50–95% relative humidity for model variants with active humidification
- Tried-and-tested anti-contamination concept with 180 °C hot air sterilization
- Optimized double-pan humidification system with condensation protection
- CO<sub>2</sub> gas-mixing jet with Venturi effect
- Hot-air sterilizable CO<sub>2</sub> sensor with single-beam infrared technology
- Intuitive touchscreen controller

### AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
CB 60	53	<a href="https://go2binder.com/en-CB60">go2binder.com/en-CB60</a>
CB 170	170	<a href="https://go2binder.com/en-CB170">go2binder.com/en-CB170</a>
CB 220	210	<a href="https://go2binder.com/en-CB220">go2binder.com/en-CB220</a>



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Find all details online  
[go2binder.com/en-CB](https://go2binder.com/en-CB)

## TECHNICAL DATA

Description	CB 60	CB 170	CB 220
<b>Measures</b>			
Interior volume [L]	53	170	210
Net weight of the unit (empty) [kg]	68	95	132
Permitted load [kg]	30	30	30
Load per rack [kg]	10	10	10
Wall clearance back [mm]	100	100	100
Wall clearance sidewise [mm]	50	50	50
<b>Internal Dimensions</b>			
Width [mm]	400	560	560
Height [mm]	400	600	750
Depth [mm]	330	505	500
<b>Housing dimensions not incl. fittings and connections</b>			
Width net [mm]	580	680	740
Height net [mm]	720	870	1070
Depth net [mm]	545	715	715
<b>Performance Data Temperature</b>			
Temperature range 4-7 °C above ambient temperature to [°C]	60	60	60
Temperature variation at 37 °C [± K]	0.3	0,3	0.4
Temperature fluctuation at 37 °C [± K]	0.1	0.1	0.1
Recovery time after 30 seconds door open at 37 °C [min]	4	6	5
<b>Performance Data Climate</b>			
Humidity range [% RH]	90...95	90...95	90...95
Humidity range with active humidification [% r.F.]	–	50...95	–
<b>CO<sub>2</sub>-Data</b>			
CO <sub>2</sub> range [Vol.-% CO <sub>2</sub> ]	0...20	0...20	0...20
CO <sub>2</sub> measurement	IR	IR	IR
<b>Electrical data</b>			
Nominal power (version 120 V) [kW]	0	1.4	1.5
Nominal power (version 230 V) [kW]	0	1.4	0
<b>Fixtures</b>			
Number of shelves (std./max.)	2/3	3/6	3/8

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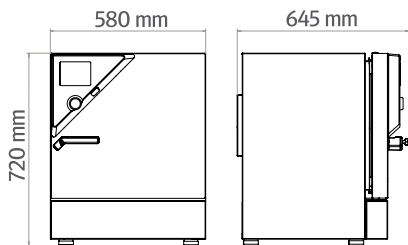
Voltage	Option model	CB 60	CB 170	CB 220
200...240 V 1~ 50/60 Hz	Standard	9040-0088	9040-0131	9040-0096
	with 4x divided inner door	9040-0104	–	–
	with O <sub>2</sub> control	9040-0090	9040-0132	9040-0098
	with O <sub>2</sub> control and with 4x divided inner door	9040-0106	–	–
	With active humidification	–	9040-0133	–
	With O <sub>2</sub> control 0.2–20% and active humidification	–	9040-0134	–
	with 6x divided inner door	–	–	9040-0108
	with O <sub>2</sub> control and with 6x divided inner door	–	–	9040-0110

Voltage	Option model	CB 60	CB 170	CB 220
100...120 V 1~ 50/60 Hz	Standard	9040-0089	9040-0139	9040-0097
	with 4x divided inner door	9040-0105	-	-
	with O <sub>2</sub> control	9040-0091	9040-0140	9040-0099
	with O <sub>2</sub> control and with 4x divided inner door	9040-0107	-	-
	With active humidification	-	9040-0141	-
	With O <sub>2</sub> control 0.2–20% and active humidification	-	9040-0142	-
	with 6x divided inner door	-	-	9040-0109
	with O <sub>2</sub> control and with 6x divided inner door	-	-	9040-0111

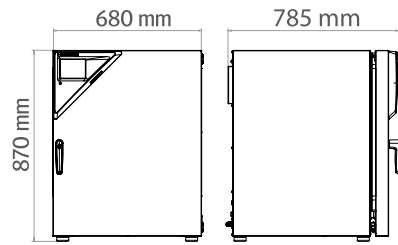
► You will find a selection of options, accessories and services suitable for each product on page 12

### DIMENSIONS incl. fittings and connections [mm]

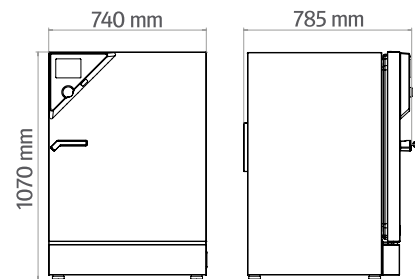
CB 60



CB 170



CB 220



## ADDITIONAL OPTIONS AND ACCESSORIES

### Multiple-split inner door

Metal panel with 4 or 6 glass doors and special corresponding shelf racks make it possible to divide the space for different experiments. The interior chamber atmosphere remains stable.

Series CB

### Stacking adapter

Stacking adapters support the space-saving installation and safe stacking of BINDER CO<sub>2</sub> incubators.

Series C, CB

### CO<sub>2</sub> gas tank changer

Binder Gas Supply Service for connecting two gas tanks to up to two incubators, with audible and visual alarms, as well as zero-voltage alarm output.

Series C, CB

### CO<sub>2</sub> - shaker

High-quality solution for the incubation of suspension cell cultures in CO<sub>2</sub> incubators. The exclusive use of corrosion-resistant components in the stainless steel housing makes the CO<sub>2</sub> incubator suitable for gassed incubators with increased CO<sub>2</sub> concentrations and nearly saturated air humidity.

Series C, CB

### Kupfer-Innenausstattung

The kit consists of three copper shelves and a copper-plated water pan. The copper equipment reduces the time and effort required for cleaning the incubator while continuing to ensure a high level of resistance to contamination.

Series C

### Services

You can access our installation, maintenance, calibration, validation, or warranty services by taking out a Maintenance Service Agreement or by simply getting in touch when you need us.

More information is available in the accessories and services chapter.

Series C, CB

### BINDER INDIVIDUAL

Using a BINDER series production product as a basis, we develop individual solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty. More information is available in the accessories and services chapter.

Series C, CB

► All extras online [go2binder.com/en-options](https://go2binder.com/en-options)



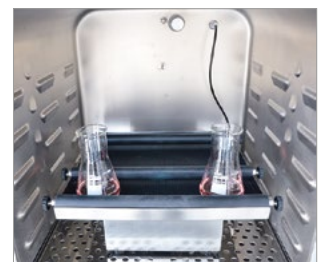
Multiple-split inner door



Stacking adapter



CO<sub>2</sub> gas tank changer



BINDER CO<sub>2</sub> - shakers







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