

CO₂ incubators



C | CB series



CO₂ incubator CB 170

BINDER CO₂ incubators have always been trendsetters in cutting-edge cell cultivation. The new CB 170 model comes with an enhanced version of the ground-breaking anti-contamination concept but simpler operation. Performance has been improved and the interior is now 12% bigger, though the footprint has stayed the same and the stacking height has been reduced. The CB model is and always will be synonymous with the simple, hassle-free, and contamination-proof incubation of cell cultures.

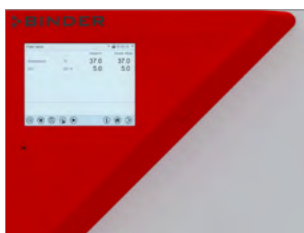


NEW

KEY FEATURES

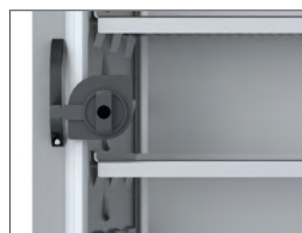
- Range of temperature controller: 4 °C via ambient temperature up to 60 °C
- CO₂ control range: 0–20 vol. % CO₂
- O₂ control range: 0.2–20 vol % O₂ (variants)
- Tried-and-tested anti-contamination concept with 180 °C hot air sterilization
- Intuitive touchscreen controller
- Optimized moisture management with quick recovery times
- 170 liters extra space in the interior while maintaining the same footprint
- Stacking height of just 1.80 m for easy use of the top unit
- Fail-safe CO₂ automatic diagnosis system for protecting cell cultures
- DuoDoor™ system: Unit door and glass door can be opened with one handle

Advantages at a glance



Intuitive touchscreen controller

State-of-the-art control technology with time-segment and real-time programming. Internal data logger, measured values can be read out in open format via USB.



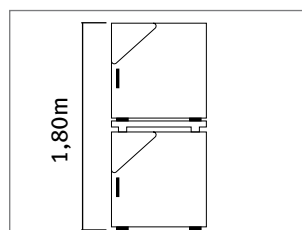
DuoDoor™ door locking mechanism

Thanks to the new ergonomic door locking mechanism, the unit door and inner glass door can be opened at the same time.



Moisture management with quick recovery times

Advanced Permadyry™ moisture system with practical water pan allows for faster humidification when the door is opened.



Convenient lab work

The reduced stacking height allows for easy use of the top unit in the stack.

TECHNICAL DATA

Description	CB 170
Outer dimensions	
Width net [mm]	680
Height net [mm]	870
Depth net [mm]	715
Internal Dimensions	
Width [mm]	560
Height [mm]	600
Depth [mm]	505
Measures	
Interior volume [L]	170
Net weight of the unit (empty) [kg]	95
permitted load [kg]	30
Load per rack [kg]	10
Performance Data Temperature	
Temperature range 4 °C above ambient temperature to [°C]	60
Temperature variation at 37 °C [± K]	0.3
Temperature fluctuation at 37 °C [± K]	0.1
Recovery time after 30 seconds door open at 37 °C [min]	6
Performance Data Climate	
Humidity range [% RH]	90...95
CO ₂ -Data	
CO ₂ range [Vol.-% CO ₂]	0...20
CO ₂ measurement	IR
Electrical data	
Nominal power (version 120 V) [kW]	1.4
Nominal power (version 230 V) [kW]	1.4
Fixtures	
Number of shelves (std./max.)	3/6

Interior volume	Fixed power unit fuse	Option model	Version	Art. No.
CB 170 model				
170 L	200...240 V 1~ 50/60 Hz	Standard	CB170-230V	9040-0131
		with O ₂ control 0.2–20 % [•]	CB170-230V-O	9040-0132
		with active humidification	CB170-230V-F	9040-0133
		with O ₂ control 0.2–20 % and active humidification	CB170-230V-OF	9040-0134
	100...120 V 1~50/60 Hz	Standard	CB170UL-120V	9040-0139
		with O ₂ control 0.2–20 % [•]	CB170UL-120V-O	9040-0140
		with active humidification	CB170UL-120V-F	9040-0141
		with O ₂ control 0.2–20 % and active humidification	CB170UL-120V-OF	9040-0142

[•]with an alternative O₂ control range 10–95 vol.-% O₂ as an option



Find all details about CO₂ incubators online
go2binder.com/en-CB

CO₂ incubators

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Every CO₂ incubator from BINDER guarantees optimum, reproducible growth conditions for cell cultures. The proven APT.line™ air jacket system and Permady technology eliminate the risk of condensation. Thanks to 180 °C hot-air sterilization, bacteria and spores are eliminated.

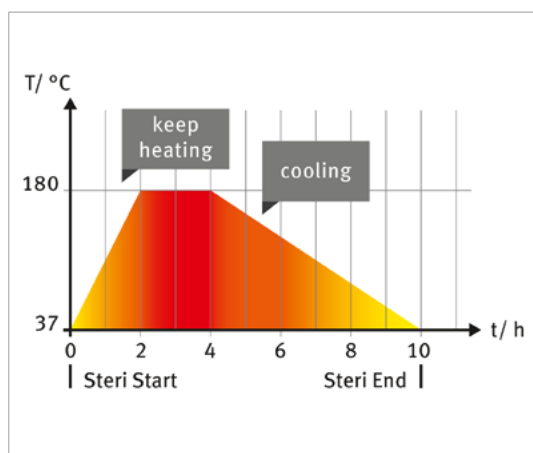
The unique, seamless deep-drawn inner chamber without built-in obstructions makes cleaning very simple. These are important advantages for uniformly good cell and tissue cultivation, which BINDER Series C and CB CO₂ incubators offer as standard.

PRODUCT SELECTION CO₂ INCUBATORS

Features	Series C › Page 8	Series CB › Page 11
Model		
Model 60	–	•
Model 170	•	•
Model 220	–	•
General data		
Temperature range 7 °C above ambient temperature to [°C]	50	60
Temperature range 4 °C above ambient temperature to [°C]	–	60
Humidity range [% RH]	90...95	
Ethernet interface	–	•
USB interface	–	•
Plug-in system	Wire frame	Flanges
Humidification system	Water pan	Double shell
CO ₂ sensor	IR, plug in	IR, can be sterilized
Controller and timer functions		
Controller display	LED	LCD color display/ TFT touch
Class 3.1 independent temperature safety device	•	•
Temperature alarm, acoustic	•	•
Temperature alarm, visual	•	•

•Standard equipment

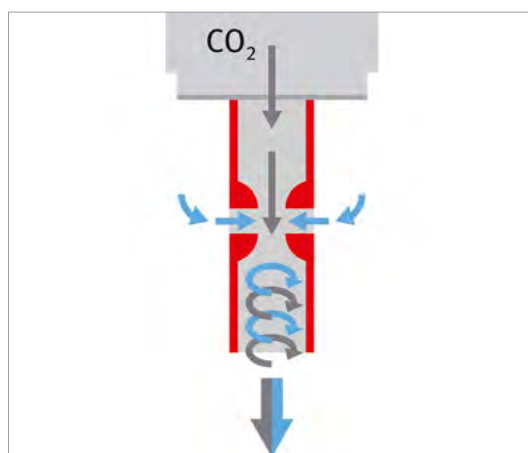
ADVANTAGES AT A GLANCE



MINIMAL RISK OF CONTAMINATION

Series C, CB

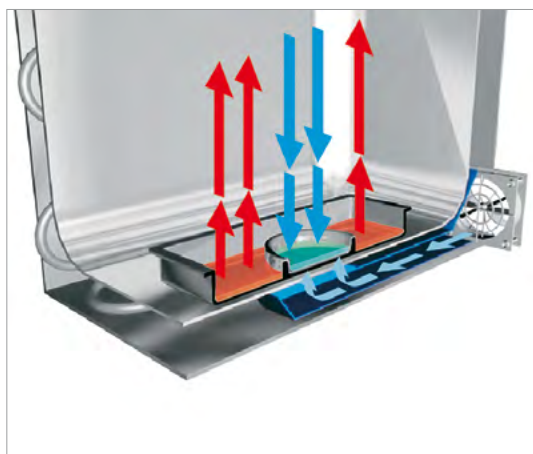
With 180 °C hot-air sterilization, complete sterilization of the entire interior is available at the push of a button. In the CB series, the CO₂ sensor is also sterilized.



OPTIMUM CELL GROWTH

Series C, CB

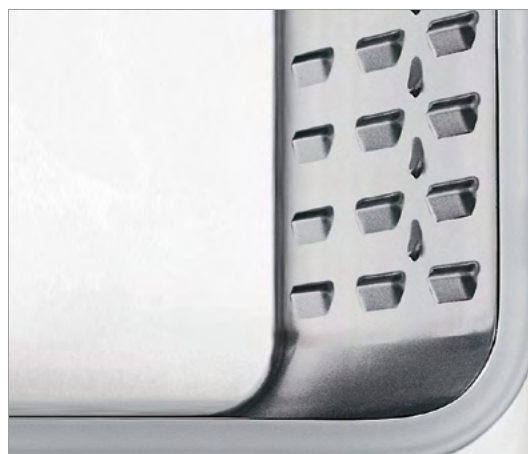
Stable pH values thanks to drift-free CO₂ sensor technology and homogeneous CO₂ distribution using the BINDER gas mixing head according to the Venturi principle.



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 CO₂ measurement system.



C 170 model

MAIN FEATURES

- Temperature range: room temperature plus 7 °C to 50 °C
- Humidity range: up to 95 % RH
- Auto-sterilization with hot air at 180 °C
- Humidification system with condensation protection
- CO₂ gas-mixing jet with Venturi effect
- CO₂ sensor with infrared technology
- Display with 3-digit, 7-segment LEDs
- Door hinged right or left
- Tightly-sealed inner door made of tempered safety glass
- Seamless, deep-drawn inner stainless steel chamber

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
C 170	168	› go2binder.com/en-C170



Find all details online
go2binder.com/en-C

TECHNICAL DATA

Description	C 170
Outer dimensions	
Width net [mm]	740
Height net [mm]	870
Depth net [mm]	715
Internal Dimensions	
Width [mm]	560
Height [mm]	600
Depth [mm]	500
Measures	
Interior volume [L]	168
Net weight of the unit (empty) [kg]	96
Load per rack [kg]	10
Performance Data Temperature	
Temperature range 7 °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]	6
Performance Data Climate	
Humidity range [% RH]	90...95
CO ₂ -Data	
CO ₂ range [Vol.-% CO ₂]	0...20
CO ₂ measurement	IR
Electrical data	
Nominal power (version 120 V) [kW]	1.1
Nominal power (version 230 V) [kW]	0
Fixtures	
Number of shelves (std./max.)	3/8

ORDERING INFORMATION [Art. No.]

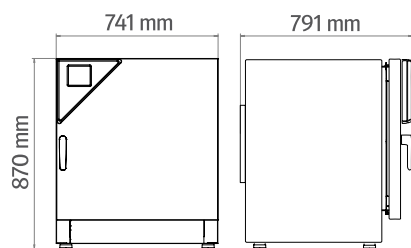
Further details: Go to www.binder-world.com › Search › Enter Article Number

Voltage	Option model	C 170
230 V 1 50/60 Hz	Door hinged right	9040-0112
	Door hinged left	9040-0115
120 V 1 60 Hz	Door hinged right	9040-0113
	Door hinged left	9040-0116

► You will find a selection of options, accessories and services suitable for each product on page 14

DIMENSIONS incl. fittings and connections [mm]

C 170



Series CB | with hot air sterilization and heat sterilizable CO₂ sensor

The BINDER CB series CO₂ incubator is the premium class among the CO₂ incubators. It is suitable for all sensitive incubation applications and ensures optimal cell growth. A BINDER CB series CO₂ incubator can perform complex cultivation experiments as well as specific environmental conditions.



Model CB 170

MAIN FEATURES

- Temperature range: ambient temperature plus 4 °C to 60 °C (CB 170)
- Humidity range: 90 to 95% RH
- CO₂ control range: 0 to 20 vol% CO₂
- Alternative O₂ control range: 0,2-20 Vol.-% O₂ or 10-95 Vol.-% O₂ (O₂ versions)
- Tried-and-tested anti-contamination concept with 180 °C hot air sterilization
- Optimized double-pan humidification system with condensation protection
- CO₂ gas-mixing jet with Venturi effect
- Hot-air sterilizable CO₂ sensor with infrared technology
- Intuitive touchscreen controller (CB 170)

AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
CB 60	53	› go2binder.com/en-CB60
CB 170	170	› go2binder.com/en-CB170
CB 220	210	› go2binder.com/en-CB220



TIPS & TRICKS

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Tips & Tricks: › go2binder.com/en-tips-tricks
 Case Studies: › go2binder.com/en-case-studies



Find all details online
go2binder.com/en-CB

TECHNICAL DATA

Description	CB 60	CB 170	CB 220
Outer dimensions			
Width net [mm]	580	680	740
Height net [mm]	720	870	1070
Depth net [mm]	545	715	715
Internal Dimensions			
Width [mm]	400	560	560
Height [mm]	400	600	750
Depth [mm]	330	505	500
Measures			
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
Performance Data Temperature			
Temperature range 4 °C above ambient temperature to [°C]	–	60	–
Temperature range 7 °C above ambient temperature to [°C]	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
Performance Data Climate			
Humidity range [% RH]	90...95	90...95	90...95
CO ₂ -Data			
CO ₂ range [Vol.-% CO ₂]	0...20	0...20	0...20
CO ₂ measurement	IR	IR	IR
Electrical data			
Nominal power (version 120 V) [kW]	1	1.4	0
Nominal power (version 230 V) [kW]	1	1.4	1.5
Fixtures			
Number of shelves (std./max.)	2/3	3/6	3/8

ORDERING INFORMATION [Art. No.]

Further details: Go to www.binder-world.com > Search > Enter Article Number

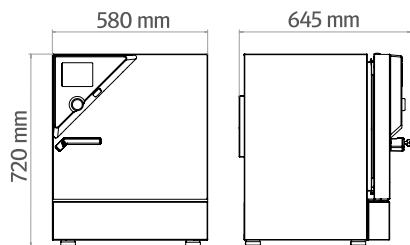
Voltage	Option model	CB 60	CB 170	CB 220
200...240 V 1 50/60 Hz	Standard	9040-0088	9040-0131	9040-0096
	with 4x divided inner door	9040-0104	–	–
	with O ₂ control	9040-0090	–	9040-0098
	with O ₂ control and with 4x divided inner door	9040-0106	–	–
	mit O ₂ control 0,2-20%	–	9040-0132	–
	with 6x divided inner door	–	9040-0131 8012-1844	9040-0108
	with O ₂ control and with 6x divided inner door	–	9040-0132 8012-1844	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 ₂ control	9040-0091	–	9040-0099
	with O ₂ control and with 4x divided inner door	9040-0107	–	–
	mit O ₂ control 0,2-20%	–	9040-0140	–
	with 6x divided inner door	–	9040-0139 8012-1844	9040-0109
	with O ₂ control and with 6x divided inner door	–	9040-0140 8012-1844	9040-0111

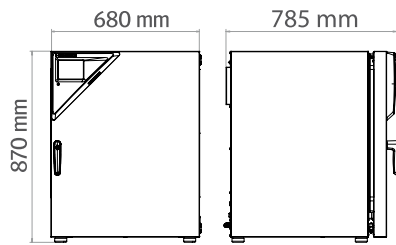
► You will find a selection of options, accessories and services suitable for each product on page 14

DIMENSIONS incl. fittings and connections [mm]

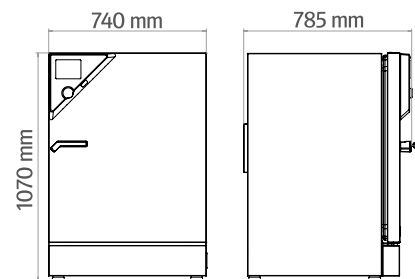
CB 60



CB 170



CB 220



EXCERPT FROM OPTIONS AND ACCESSORIES

Multiple-split inner door

Split 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 safe positioning and stacking of BINDER CO₂ incubators.

Series C, CB

CO₂ gas tank changer

External, Binder Gas Supply Service, for connecting 2 gas tanks, with audible and visual alarms, as well as zero-voltage alarm output.

Series C, CB

CO₂ - shaker

High-quality solution for the incubation of suspension cell cultures in CO₂ incubators. The exclusive use of corrosion-resistant components in the stainless steel housing makes the CO₂ incubator suitable for gassed incubators with increased CO₂ concentrations and nearly saturated air humidity.

Series C, CB

Copper interior fittings

Set consisting of 3 shelves (all-copper) and a water pan (copper-plated)

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



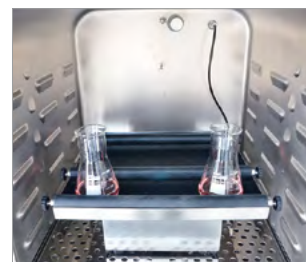
Multiple-split inner door



Stacking adapter



CO₂ gas tank changer



BINDER CO₂ - shakers

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