

CO₂ incubators



C | CB series



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 Permadyry technology eliminate the risk of condensation. Thanks to 180 °C hot-air sterilization, bacteria and spores are eliminated.

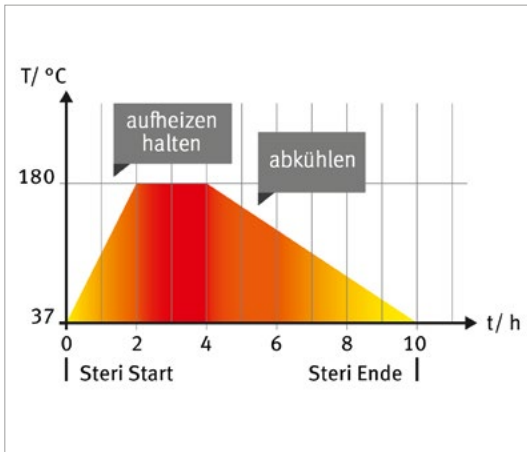
The unique, seamless deep-drawn inner chamber without built-in obstructions makes cleaning very simple. These are important advantages for uniformly good cell and tissue cultivation, which BINDER Series C and CB CO₂ incubators offer as standard.

PRODUCT SELECTION CO₂ INCUBATORS

Features	Series C › Page 6	Series CB › Page 9
Model		
Model 60	–	•
Model 170	•	•
Model 220	–	•
General data		
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 ₂ sensor	IR, plug in	IR, can be sterilized
Controller and timer functions		
Controller display	LCD	LCD color display
Class 3.1 independent temperature safety device	•	•
Temperature alarm, acoustic	•	•
Temperature alarm, visual	•	•

•Standard equipment

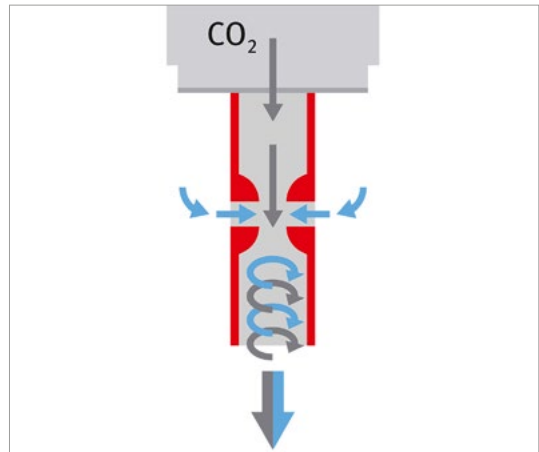
ADVANTAGES AT A GLANCE



MINIMAL RISK OF CONTAMINATION

Series C, CB

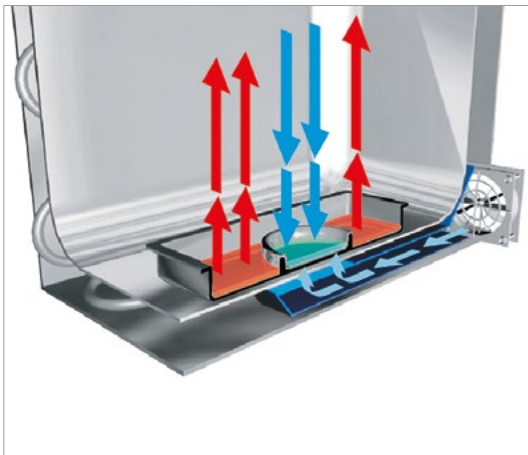
With 180 °C hot-air sterilization, complete sterilization of the entire interior is available at the push of a button. In the CB series, the CO₂ sensor is also sterilized.



OPTIMUM CELL GROWTH

Series C, CB

Stable pH values are attained with 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.



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
- CO₂ gas-mixing jet with Venturi effect
- CO₂ sensor with infrared technology
- LCD to display temperature and CO₂ 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 [cu. ft.]	Online data sheets
C 170	6	go2binder.com/us-C170

TECHNICAL DATA

Description	C 170
Measures	
Interior volume [cu.ft.]	6
Net weight of the unit (empty) [lbs]	198
Permitted load [lbs]	88
Load per rack [lbs]	22
Wall clearance back [in]	3.94
Wall clearance sidewise [in]	1.97
Internal Dimensions	
Width [in]	22.06
Height [in]	23.64
Depth [in]	19.9
Housing dimensions not incl. fittings and connections	
Width net [in]	26.79
Height net [in]	34.28
Depth net [in]	28.17
Performance Data Temperature	
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
Performance Data Climate	
Humidity range [% RH]	90...95
CO₂-Data	
CO ₂ range [Vol.-% CO ₂]	0...20
CO ₂ measurement	IR
Electrical data	
Nominal power (version 120 V) [kW]	1.3
Nominal power (version 230 V) [kW]	1.3
Fixtures	
Number of shelves (std./max.)	3/8

ORDERING INFORMATION [Art. No.]

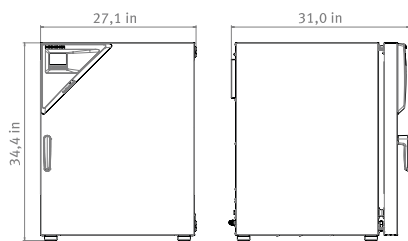
Further details: Go to www.binder-world.com > Search > Enter Article Number

Voltage	Option model	C 170
230 V 1~ 50/60 Hz	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]

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: from 4 °C via ambient temperature up to 60 °C
- Humidity range: 90 to 95% RH
- CO₂ control range: 0 to 20 vol% CO₂
- O₂ control range: 0.2 to 20 vol% O₂ for versions with O₂ control
- Alternative O₂ control range: 10 to 95 vol% O₂, option for versions with O₂ 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
- CO₂ gas-mixing jet with Venturi effect
- Hot-air sterilizable CO₂ sensor with single-beam infrared technology
- Intuitive touchscreen controller

AVAILABLE SIZES

Model	Interior volume [cu. ft.]	Online data sheets
CB 60	1.9	go2binder.com/us-CB60
CB 170	6	go2binder.com/us-CB170
CB 220	7.4	go2binder.com/us-CB220



TIPS & TRICKS

Benefit from our many years of experience, as demonstrated in our technical papers:

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



Find all details online
go2binder.com/us-CB

TECHNICAL DATA

Description	CB 60	CB 170	CB 220
Measures			
Interior volume [cu.ft.]	1.9	6	7.4
Net weight of the unit (empty) [lbs]	150	209	291
Permitted load [lbs]	66	66	66
Load per rack [lbs]	22	22	22
Wall clearance back [in]	3.94	3.94	3.94
Wall clearance sidewise [in]	1.97	1.97	1.97
Internal Dimensions			
Width [in]	15.76	22.06	22.06
Height [in]	15.76	23.64	29.55
Depth [in]	13	19.9	19.7
Housing dimensions not incl. fittings and connections			
Width net [in]	22.85	26.79	29.16
Height net [in]	28.37	34.28	42.2
Depth net [in]	21.47	28.17	28.17
Performance Data Temperature			
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
Performance Data Climate			
Humidity range [% RH]	90...95	90...95	90...95
CO₂-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]	0	1.4	1.5
Nominal power (version 230 V) [kW]	0	1.4	0
Fixtures			
Number of shelves (std./max.)	2/3	3/6	3/8

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

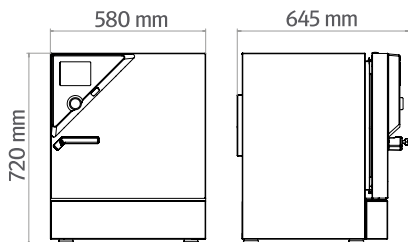
Voltage	Option model	CB 60	CB 170	CB 220
200...240 V 1~ 50/60 Hz	Standard	9040-0088	9040-0131	9040-0096
	with 4x divided inner door	9040-0104	–	–
	with O ₂ control	9040-0090	9040-0132	9040-0098
	with O ₂ control and with 4x divided inner door	9040-0106	–	–
	With active humidification	–	9040-0133	–
	With O ₂ control 0.2–20% and active humidification	–	9040-0134	–
	with 6x divided inner door	–	–	9040-0108
	with O ₂ 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 ₂ control	9040-0091	9040-0140	9040-0099
	with O ₂ control and with 4x divided inner door	9040-0107	-	-
	With active humidification	-	9040-0141	-
	With O ₂ control 0.2–20% and active humidification	-	9040-0142	-
	with 6x divided inner door	-	-	9040-0109
	with O ₂ control and with 6x divided inner door	-	-	9040-0111

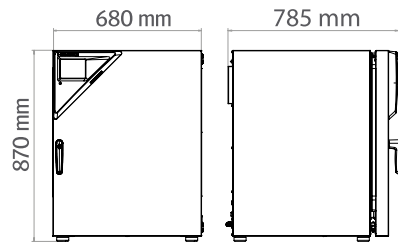
► You will find a selection of options, accessories and services suitable for each product on page 12

DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]

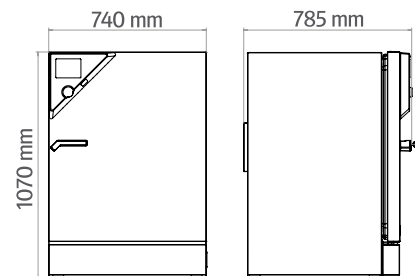
CB 60



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 CO₂ incubators.

Series C, CB

CO₂ 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

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

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/us-options



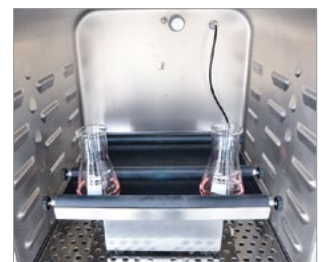
Multiple-split inner door



Stacking adapter



CO₂ gas tank changer



BINDER CO₂ - shakers

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