

# CO<sub>2</sub> incubators



CB-S | CBF | CB series





# CO<sub>2</sub> incubators

Series CB-S Solid.Line	Page 6
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BINDER CO<sub>2</sub> incubators are safe, reliable, smart, and economical. So they are perfect for every cell culture laboratory. The CB-S series masters common standard applications such as cell production with ease. The CB series is also recommended for cell-based assays and is indispensable to the development of active pharmaceutical ingredient and in the field of medical research. With its high-end features, the CBF series even proves its worth in the GMP environments found in the stem cell research and cell therapy sectors. All models are impressively easy to use and clean and stand out thanks to their pioneering BINDER anti-contamination concept.

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

Features	Series CB-S Solid.Line <small>› Page 6</small>	Series CB <small>› Page 11</small>	Series CBF <small>› Page 17</small>
<b>Model</b>			
Model 56	–	•	–
Model 170	•	•	•
Model 260	•	•	•
<b>General data</b>			
Temperature range +6 °C above ambient temperature to [°C]	50	–	60
Temperature range +4-6 °C above ambient temperature to [°C]	–	60	–
Temperature range +5-6 °C above ambient temperature to [°C]	–	60	–
Temperature range +5-7 °C above ambient temperature to [°C]	–	–	60
Humidity range [% RH]	90...95	90...95	50...95

•Standard equipment

## ADVANTAGES AT A GLANCE



### **RELIABLE**

Series CB-S, CB, CBF

Well-being conditions for the cells at all times thanks to fast and precise CO<sub>2</sub> and temperature control.



### **COST-EFFECTIVE**

Series CB-S, CB, CBF

Affordable hot-air sterilization without consumables.



### **SMART**

Series CB-S, CB, CBF

Effortless routine cleaning due to obstacle-free interior with rounded corners.



### **SAFE**

Series CB-S, CB, CBF

Maximum contamination protection due to fanless interior and uncompromising 180 °C sterilization.

## Series CB-S Solid.Line | with hot air sterilization

The durable and affordable CB-S series incubators are suitable for routine cell cultivation applications in the field of cell production, particularly in academic settings. They are contamination-proof due to 180 °C hot air sterilization and reliably pH-stable thanks to the drift-free infrared CO<sub>2</sub> measurements conducted in real time.



Model CB-S 260

### BENEFITS

- Safe – cell cultures receive maximum protection against contamination
- Reliable – constant well-being conditions for the cells
- Smart – simple routine cleaning and convenient operation
- Economical – efficient operation without consumables

### MAIN FEATURES

- Temperature range: +6 °C above ambient temperature to +50 °C
- Humidity range: 90 to 95% RH
- CO<sub>2</sub> control range: 0 to 20 vol.% CO<sub>2</sub>
- Tried-and-tested anti-contamination concept with 180 °C hot air sterilization
- 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
- Internal data logger, measured values can be read out in open format via USB
- Tightly fitted inner door made of safety glass

### AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
CB-S 170	170	› <a href="https://go2binder.com/en-CB-S170">go2binder.com/en-CB-S170</a>
CB-S 260	267	› <a href="https://go2binder.com/en-CB-S260">go2binder.com/en-CB-S260</a>



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

## OPTIONAL EQUIPMENT

<b>Stacking adapter</b>	Stacking adapters support the space-saving installation and safe stacking of BINDER CO <sub>2</sub> incubators.	
<b>CO<sub>2</sub> gas tank changer</b>	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.	
<b>CO<sub>2</sub> - shaker</b>	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.	
<b>Copper interior fittings</b>	The kit consists of 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.	
<b>Services</b>	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.	

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

## TECHNICAL DATA

Description	CB-S 170	CB-S 260
<b>Measures</b>		
Interior volume [L]	170	267
Net weight of the unit (empty) [kg]	96	122
Permitted load [kg]	30	40
Load per rack [kg]	10	10
Wall clearance back [mm]	100	100
Wall clearance sidewise [mm]	50	50
<b>Internal Dimensions</b>		
Width [mm]	560	620
Height [mm]	600	750
Depth [mm]	505	575
<b>Housing dimensions not incl. fittings and connections</b>		
Width net [mm]	680	740
Height net [mm]	870	1020
Depth net [mm]	715	785
<b>Performance Data Temperature</b>		
Temperature range +6 °C above ambient temperature to [°C]	50	50
Temperature variation at 37 °C [± K]	0.3	0.4
Temperature fluctuation at 37 °C [± K]	0.1	0.1
Recovery time after 30 seconds door open at 37 °C [min]	6	8
<b>Performance Data Climate</b>		
Humidity range [% RH]	90...95	90...95
<b>CO<sub>2</sub>-Data</b>		
CO <sub>2</sub> range [Vol.-% CO <sub>2</sub> ]	0...20	0...20
CO <sub>2</sub> measurement	IR	IR
<b>Electrical data</b>		
Nominal power (version 120 V) [kW]	1.3	1.5
Nominal power (version 230 V) [kW]	1.3	1.5
<b>Fixtures</b>		
Number of shelves (std./max.)	2/6	2/8

## ORDERING INFORMATION [Art. No.]

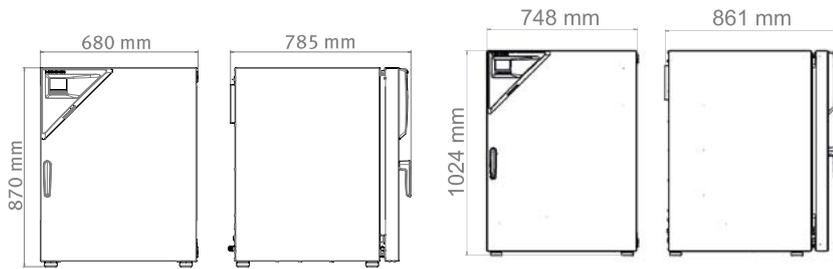
Further details: Go to [www.binder-world.com](http://www.binder-world.com) > Search > Enter Article Number

Voltage	Option model	CB-S 170	CB-S 260
200...230 V 1~ 50/60 Hz	Standard	9640-0001	9640-0003
	with Access port 30 mm left	9640-0029	-
100...120 V 1~ 50/60 Hz	Standard	9640-0002	9640-0004
	with Access port 30 mm left	9640-0030	-

## DIMENSIONS incl. fittings and connections [mm]

CB-S 170

CB-S 260



## ORDERING INFORMATION OPTIONS

Designation	Description	CB-S 170	CB-S 260	Art. No.
<b>Access port with silicone plug</b>	back 30 mm	•	•	8612-0017
	left 30 mm	•	•	8612-0018
	right 30 mm	•	•	8612-0019
	<b>Analog output 4-20 mA</b>	for temperature and CO <sub>2</sub> values (outputs not adjustable)	•	•
<b>Calibration certificate, expanded</b>	for temperature; for extending the measurement in center of chamber to include another test temperature	•	•	8012-1112
	for temperature, measurement in center of chamber at specified temperature	•	•	8012-1131
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	8012-1591
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	8012-1570
<b>Calibration certificate, temperature</b>	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	8012-1549
	<b>Calibration certificate, temperature and CO<sub>2</sub></b>	for temperature and CO <sub>2</sub> , temperature measurement in center of chamber, CO <sub>2</sub> measurement performed using test gas at 37 °C and 5 % CO <sub>2</sub>	•	•
<b>Door hinged on the left</b>	Unit door and standard glass inner door with door hinged on the left	•	•	8612-0020
<b>Door lock</b>	lockable door handle	•	•	8612-0021

## ORDERING INFORMATION ACCESSORIES

Designation	Description	CB-S 170	CB-S 260	Art. No.
<b>APT-COM™ 4 BASIC-Edition</b>	for simple logging and documentation requirements with up to 5 networked units. version 4, BASIC edition	•	•	9053-0039
<b>APT-COM™ 4 GLP-Edition</b>	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11. version 4, GLP edition	•	•	9053-0042
<b>APT-COM™ 4 PROFESSIONAL-Edition</b>	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units. version 4, PROFESSIONAL edition	•	•	9053-0040
<b>Base</b>	the base equipped with casters is used for the secure positioning and leveling of a BINDER CO <sub>2</sub> incubator	•	–	9051-0028
		–	•	9051-0044
<b>Cleaning kit</b>	for equipment maintenance and disinfection, consisting of pH-neutral detergent (1000 g, concentrate), spray disinfectant (500 ml, ready-to-use solution), lint-free cleansing tissues, protective gloves, and protective glasses	•	•	8012-0503

Designation	Description	CB-S 170	CB-S 260	Art. No.
<b>Copper interior fittings</b>	Set consisting of 2 shelves (all-copper) and a water pan (copper-plated),	•	–	8012-1997
<b>Gas cylinder connection set</b>	for CO <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	8012-0014
<b>Gas tank changer</b>	external, BINDER Gas Supply Service, for connecting 2 gas tanks (CO <sub>2</sub> , N <sub>2</sub> or O <sub>2</sub> ), with audible and visual alarms, as well as zero-voltage alarm output	•	•	8012-0408
<b>pH-neutral detergent</b>	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	8012-2250
<b>Qualification documents</b>	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO <sub>2</sub> , O <sub>2</sub> , pressure, depending on unit			
	Digital in PDF format	•	•	7057-0001
	Hard copy inside folder	•	•	7007-0001
	IQ/OQ/PQ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, CO <sub>2</sub> , O <sub>2</sub> – or pressure, depending on unit			
	Digital in PDF format	•	•	7057-0005
	Hard copy inside folder	•	•	7007-0005
<b>Rubber pads</b>	set anti-slip feet	•	•	8012-2030
<b>Shaker „Universal“</b>	Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz	•	•	8012-1771
<b>Shelf, perforated</b>	Stainless steel	•	–	8012-2167
		–	•	8012-2183
<b>Stacking adapter</b>	for the thermally isolated stacking of two BINDER CO <sub>2</sub> incubators	•	–	9051-0035
		–	•	9051-0039
<b>Stacking frame</b>	stable, vibration-free stacking frame on casters with stop brake for safe stacking of two CB series units	•	–	9051-0040
		–	•	9051-0041
<b>WLAN kit</b>	The kit contains a client bridge that establishes a wireless connection between BINDER units and APT-COM4, LIMS, or customer-specific software via an Ethernet interface. It provides an alternative solution in situations where units need to be positioned in locations without an on-site Ethernet connection. In secured networks, installation and configuration must be performed by the customer's IT service.	•	•	8012-2262

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

The powerful and versatile CB CO<sub>2</sub> incubator is suitable for cell-based assays in drug and medical research. This BINDER incubator is even suitable for complex cultivation experiments or individual environments with hypoxic conditions thanks to its comprehensive assortment of options and accessories.



Model CB 170

### BENEFITS

- Safe – cell cultures receive maximum protection against contamination
- Reliable – constant well-being conditions for the cells
- Smart – simple routine cleaning and convenient operation
- Economical – efficient operation without consumables

### MAIN FEATURES

- Optimized double-pan humidification system with condensation protection
- Tried-and-tested anti-contamination concept with 180 °C hot air sterilization
- Hot-air sterilizable CO<sub>2</sub> sensor with single-beam infrared technology
- Seamless inner chamber made of stainless steel with flanges as shelf support system
- Fanless interior with Venturi CO<sub>2</sub> gas mixing nozzle
- Intuitive touchscreen controller
- Internal data recording, can be read out in open format via USB interface
- Fault diagnosis system with visual and acoustic alarm
- Interfaces: Ethernet, USB, zero-voltage alarm contact
- Fail-safe CO<sub>2</sub> system for protecting the pH of cell cultures

### AVAILABLE SIZES

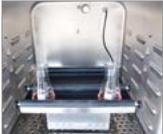
Model	Interior volume [L]	Online data sheets
CB 56	53	› <a href="https://go2binder.com/en-CB56">go2binder.com/en-CB56</a>
CB 170	170	› <a href="https://go2binder.com/en-CB170">go2binder.com/en-CB170</a>
CB 260	267	› <a href="https://go2binder.com/en-CB260">go2binder.com/en-CB260</a>



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

## OPTIONAL EQUIPMENT

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<b>Stacking adapter</b>	Stacking adapters support the space-saving installation and safe stacking of BINDER CO <sub>2</sub> incubators.	
<b>CO<sub>2</sub> gas tank changer</b>	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.	
<b>CO<sub>2</sub> - shaker</b>	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.	
<b>Copper interior fittings</b>	The kit consists of 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.	
<b>Services</b>	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.	
<b>BINDER INDIVIDUAL</b>	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.	

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## TECHNICAL DATA

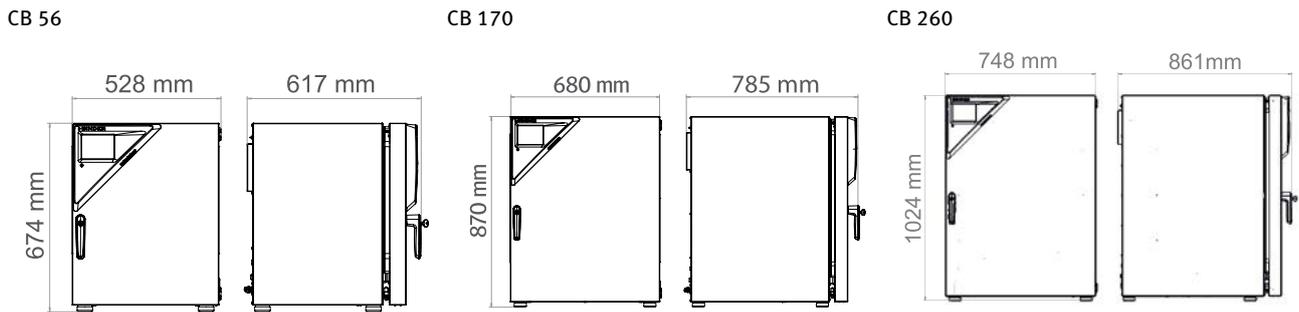
Description	CB 56	CB 170	CB 260
<b>Measures</b>			
Interior volume [L]	53	170	267
Net weight of the unit (empty) [kg]	53	98	125
Permitted load [kg]	30	30	40
Load per rack [kg]	10	10	10
Wall clearance back [mm]	100	100	100
Wall clearance sidewise [mm]	50	50	50
<b>Internal Dimensions</b>			
Width [mm]	400	560	620
Height [mm]	400	600	750
Depth [mm]	330	505	575
<b>Housing dimensions not incl. fittings and connections</b>			
Width net [mm]	528	680	740
Height net [mm]	674	870	1020
Depth net [mm]	545	715	785
<b>Performance Data Temperature</b>			
Temperature range +4-6 °C above ambient temperature to [°C]	60	60	–
Temperature range +5-6 °C above ambient temperature to [°C]	–	–	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]	5	6	6
<b>Performance Data Climate</b>			
Humidity range [% RH]	90...95	90...95	90...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]	0.8	1.4	1.5
Nominal power (version 230 V) [kW]	0.8	1.4	1.5
<b>Fixtures</b>			
Number of shelves (std./max.)	2/3	3/6	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	CB 56	CB 170	CB 260
200...230 V 1~ 50/60 Hz	Standard	9640-0005	9640-0009	9640-0013
	with Access port 30 mm left	–	9640-0027	–
	with O <sub>2</sub> control 0.2–20%	–	9640-0010	9640-0014
100...120 V 1~ 50/60 Hz	Standard	9640-0007	9640-0011	9640-0015
	with Access port 30 mm left	–	9640-0028	–
	with O <sub>2</sub> control 0.2–20%	–	9640-0012	9640-0016

## DIMENSIONS incl. fittings and connections [mm]



## ORDERING INFORMATION OPTIONS

Designation	Description	CB 56	CB 170	CB 260	Art. No.
<b>Access port with silicone plug</b>	back 30 mm	•	•	•	8612-0025
	left 30 mm	•	•	•	8612-0026
	right 30 mm	•	•	•	8612-0027
<b>Analog output 4-20 mA</b>	for temperature and CO <sub>2</sub> values (outputs not adjustable)	•	•	•	8612-0022
<b>Calibration certificate O<sub>2</sub></b>	for versions with O <sub>2</sub> control; a measuring point in center of chamber at a specified O <sub>2</sub> percentage value	–	•	•	8012-0229
<b>Calibration certificate, temperature</b>	for temperature, measurement in center of chamber at specified temperature	•	•	•	8012-1132
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	•	8012-1592
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	•	8012-1571
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	•	8012-1550
<b>Calibration certificate, temperature and CO<sub>2</sub></b>	for temperature and CO <sub>2</sub> , temperature measurement in center of chamber, CO <sub>2</sub> measurement performed using test gas at 37 °C and 5 % CO <sub>2</sub>	•	•	•	8012-1235
<b>CELLROLL Set</b>	modular, expandable roller bottle system for cell cultivation, 4 roller bottles	–	•	–	8612-0023
	modular, expandable roller bottle system for cell cultivation, 6 roller bottles	–	–	•	8612-0024
<b>Door hinged on the left</b>	Unit door and standard glass inner door with door hinged on the left	•	•	•	8612-0034
<b>Electric access port</b>	8-pin, for low voltage with LEMO socket (coverable) and LEMO plug (max. 24 V – 2 A)	•	•	•	8612-0033
<b>Inner door, divided</b>	Cell therapy compartmentalization, consisting of 4 inner doors and two shelf levels with one partition wall each	•	–	–	8612-0029
	Cell therapy compartmentalization, consisting of 6 inner doors and three shelf levels with one partition wall each	–	•	–	8612-0030
	Cell therapy compartmentalization, consisting of 8 inner doors and four shelf levels with one partition wall each	–	–	•	8612-0031
<b>O<sub>2</sub> control range</b>	alternative to the standard range, for controlling O <sub>2</sub> concentrations between 10 and 95 vol. %, only in conjunction with option models with O <sub>2</sub> control	–	•	•	8612-0028
<b>Quick sample access</b>	viewing window (13 x 25 cm) in the inner door for quick access	–	•	•	8612-0032

## ORDERING INFORMATION ACCESSORIES

Designation	Description	CB 56	CB 170	CB 260	Art. No.
<b>APT-COM™ 4 BASIC-Edition</b>	for simple logging and documentation requirements with up to 5 networked units.				
	version 4, BASIC edition	•	•	•	9053-0039
<b>APT-COM™ 4 GLP-Edition</b>	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11.				
	version 4, GLP edition	•	•	•	9053-0042
<b>APT-COM™ 4 PROFESSIONAL-Edition</b>	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.				
	version 4, PROFESSIONAL edition	•	•	•	9053-0040
<b>Base</b>		•	–	–	9051-0043
	the base equipped with casters is used for the secure positioning and leveling of a BINDER CO <sub>2</sub> incubator	–	•	–	9051-0028
		–	–	•	9051-0044
<b>Copper interior fittings</b>	Set consisting of 3 shelves (all-copper) and a water pan (copper-plated),	–	•	–	8012-1918
<b>Gas cylinder connection set</b>	for CO <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	•	8012-0014
	for N <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	–	•	•	8012-0016
	for O <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	–	•	•	8012-0015
<b>Gas tank changer</b>	external, BINDER Gas Supply Service, for connecting 2 gas tanks (CO <sub>2</sub> , N <sub>2</sub> or O <sub>2</sub> ), with audible and visual alarms, as well as zero-voltage alarm output	•	•	•	8012-0408
<b>pH-neutral detergent</b>	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	•	8012-2250
<b>Qualification documents</b>	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO <sub>2</sub> , O <sub>2</sub> , pressure, depending on unit				
	Digital in PDF format	•	•	•	7057-0001
	Hard copy inside folder	•	•	•	7007-0001
	IQ/OQ/PQ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, CO <sub>2</sub> , O <sub>2</sub> – or pressure, depending on unit				
	Digital in PDF format	•	•	•	7057-0005
	Hard copy inside folder	•	•	•	7007-0005
<b>Rubber pads</b>	set anti-slip feet	•	•	•	8012-2030
<b>Shaker „Professional“</b>	Shaker and controller equipped with LEMO connectors, exclusively for CB with electric access port, 100 – 240 V, 50/60 Hz	–	•	•	8012-1772
<b>Shaker „Universal“</b>	Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz	–	•	•	8012-1771
<b>Shelf, perforated</b>		•	–	–	8012-2166
	Stainless steel	–	•	–	8012-2167
		–	–	•	8012-2183
	for divided inner door				
	stainless steel	•	–	–	8012-2058
		–	•	–	8012-1888
	Stainless steel, divided	–	–	•	8012-1996
		•	–	–	9051-0038
<b>Stacking adapter</b>	for the thermally isolated stacking of two BINDER CO <sub>2</sub> incubators	–	•	–	9051-0035
		–	–	•	9051-0039
<b>Stacking frame</b>	stable, vibration-free stacking frame on casters with stop brake for safe stacking of two CB series units	–	•	–	9051-0040
		–	–	•	9051-0041

Designation	Description	CB 56	CB 170	CB 260	Art. No.
WLAN kit	The kit contains a client bridge that establishes a wireless connection between BINDER units and APT-COM4, LIMS, or customer-specific software via an Ethernet interface. It provides an alternative solution in situations where units need to be positioned in locations without an on-site Ethernet connection. In secured networks, installation and configuration must be performed by the customer's IT service.	•	•	•	8012-2262

## Series CBF | with hot air sterilization and humidity regulation

The BINDER CBF is the high-end CO<sub>2</sub> incubator with humidity control that is suitable for all sensitive incubation applications in GMP environments. It ensures consistent results including in cell-based assays with multiwell plates. This BINDER incubator is even suitable for complex cultivation experiments or individual environments with hypoxic conditions thanks to its comprehensive assortment of options and accessories.



Model CBF 170

### BENEFITS

- Safe – cell cultures receive maximum protection against contamination
- Reliable – constant well-being conditions for the cells
- Smart – simple routine cleaning and convenient operation
- Economical – efficient operation without consumables

### MAIN FEATURES

- Contamination-safe humidification system without water pan
- Tried-and-tested anti-contamination concept with 180 °C hot air sterilization
- Hot-air sterilizable CO<sub>2</sub> sensor with single-beam infrared technology
- Seamless inner chamber made of stainless steel with flanges as shelf support system
- Fanless interior with Venturi CO<sub>2</sub> gas mixing nozzle
- Intuitive touchscreen controller
- Internal data logger, measured values can be read out in open format via USB
- Troubleshooting system with visual and acoustic alarms
- Interfaces: Ethernet, USB, zero-voltage alarm contact
- Fail-safe CO<sub>2</sub> system for protecting the pH of cell cultures

### AVAILABLE SIZES

Model	Interior volume [L]	Online data sheets
CBF 170	170	› <a href="https://go2binder.com/en-CBF170">go2binder.com/en-CBF170</a>
CBF 260	267	› <a href="https://go2binder.com/en-CBF260">go2binder.com/en-CBF260</a>



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

## OPTIONAL EQUIPMENT

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### Cell therapy compartmentalization

Metal panel with 4/6/8 glass doors and special corresponding shelf racks with partition wall make it possible to divide the space for different culture processing applications. Particularly suitable for critical applications such as cell therapy, gene therapy or stem cell research.



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### Stacking adapter

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



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### 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.



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### 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.



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### 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.



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### 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.



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

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## TECHNICAL DATA

Description	CBF 170	CBF 260
<b>Measures</b>		
Interior volume [L]	170	267
Net weight of the unit (empty) [kg]	95	125
Permitted load [kg]	30	40
Load per rack [kg]	10	10
Wall clearance back [mm]	100	100
Wall clearance sidewise [mm]	50	50
<b>Internal Dimensions</b>		
Width [mm]	560	620
Height [mm]	600	750
Depth [mm]	505	575
<b>Housing dimensions not incl. fittings and connections</b>		
Width net [mm]	680	740
Height net [mm]	870	1020
Depth net [mm]	715	785
<b>Performance Data Temperature</b>		
Temperature range +5-7 °C above ambient temperature to [°C]	60	–
Temperature range +6 °C above ambient temperature to [°C]	–	60
Temperature variation at 37 °C [± K]	0.3	0.4
Temperature fluctuation at 37 °C [± K]	0.1	0.1
Recovery time after 30 seconds door open at 37 °C [min]	6	6
<b>Performance Data Climate</b>		
Humidity range [% RH]	50...95	50...95
<b>CO<sub>2</sub>-Data</b>		
CO <sub>2</sub> range [Vol.-% CO <sub>2</sub> ]	0...20	0...20
CO <sub>2</sub> measurement	IR	IR
<b>Electrical data</b>		
Nominal power (version 120 V) [kW]	1.4	1.5
Nominal power (version 230 V) [kW]	1.4	1.5
<b>Fixtures</b>		
Number of shelves (std./max.)	3/6	3/8

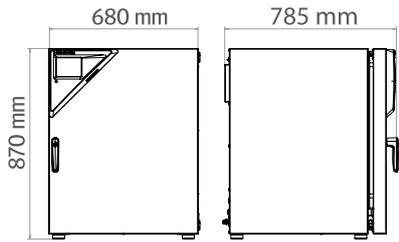
## ORDERING INFORMATION [Art. No.]

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

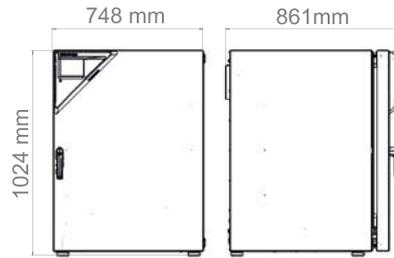
Voltage	Option model	CBF 170	CBF 260
200...230 V 1~ 50/60 Hz	Standard	9640-0017	9640-0021
	with O <sub>2</sub> control 0.2–20%	9640-0018	9640-0022
	with O <sub>2</sub> control 0.2–20% and cell therapy compartmentalization	–	9640-0025
100...120 V 1~ 50/60 Hz	Standard	9640-0019	9640-0023
	with O <sub>2</sub> control 0.2–20%	9640-0020	9640-0024
	with O <sub>2</sub> control 0.2–20% and cell therapy compartmentalization	–	9640-0026

## DIMENSIONS incl. fittings and connections [mm]

CBF 170



CBF 260



## ORDERING INFORMATION OPTIONS

Designation	Description	CBF 170	CBF 260	Art. No.
<b>Access port with silicone plug</b>	back 30 mm	•	•	8612-0025
	left 30 mm	•	•	8612-0026
	right 30 mm	•	•	8612-0027
<b>Analog output 4-20 mA</b>	for temperature and CO <sub>2</sub> values (outputs not adjustable)	•	•	8612-0022
<b>Calibration certificate O<sub>2</sub></b>	for versions with O <sub>2</sub> control; a measuring point in center of chamber at a specified O <sub>2</sub> percentage value	•	•	8012-0229
<b>Calibration certificate, temperature</b>	for temperature, measurement in center of chamber at specified temperature	•	•	8012-1132
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	8012-1592
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	8012-1571
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	8012-1550
<b>Calibration certificate, temperature and CO<sub>2</sub></b>	for temperature and CO <sub>2</sub> , temperature measurement in center of chamber, CO <sub>2</sub> measurement performed using test gas at 37 °C and 5 % CO <sub>2</sub>	•	•	8012-1235
<b>CELLROLL Set</b>	modular, expandable roller bottle system for cell cultivation, 4 roller bottles	•	–	8612-0023
	modular, expandable roller bottle system for cell cultivation, 6 roller bottles	–	•	8612-0024
<b>Door hinged on the left</b>	Unit door and standard glass inner door with door hinged on the left	•	•	8612-0034
<b>Electric access port</b>	8-pin, for low voltage with LEMO socket (coverable) and LEMO plug (max. 24 V – 2 A)	•	•	8612-0033
<b>Inner door, divided</b>	Cell therapy compartmentalization, consisting of 6 inner doors and three shelf levels with one partition wall each	•	–	8612-0030
	Cell therapy compartmentalization, consisting of 8 inner doors and four shelf levels with one partition wall each	–	•	8612-0031
<b>O<sub>2</sub> control range</b>	alternative to the standard range, for controlling O <sub>2</sub> concentrations between 10 and 95 vol. %, only in conjunction with option models with O <sub>2</sub> control	•	•	8612-0028
<b>Quick sample access</b>	viewing window (13 x 25 cm) in the inner door for quick access	•	•	8612-0032

## ORDERING INFORMATION ACCESSORIES

Designation	Description	CBF 170	CBF 260	Art. No.
<b>APT-COM™ 4 BASIC-Edition</b>	for simple logging and documentation requirements with up to 5 networked units. version 4, BASIC edition	•	•	9053-0039

Designation	Description	CBF 170	CBF 260	Art. No.
<b>APT-COM™ 4 GLP-Edition</b>	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11.			
	version 4, GLP edition	•	•	9053-0042
<b>APT-COM™ 4 PROFESSIONAL-Edition</b>	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.			
	version 4, PROFESSIONAL edition	•	•	9053-0040
<b>Base</b>	the base equipped with casters is used for the secure positioning and leveling of a BINDER CO <sub>2</sub> incubator	•	–	9051-0028
		–	•	9051-0044
<b>Convenient water supply</b>	Set consisting of 10 liter water container with magnetic holder, hose adapter with practical quick coupling and water stop function, flexible positioning, enables water to be supplied to multiple CB units simultaneously via a water container, not pre-filled.			
	for versions with active humidification	•	•	8009-1128
<b>Gas cylinder connection set</b>	for CO <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	8012-0014
	for N <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	8012-0016
	for O <sub>2</sub> , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	8012-0015
<b>Gas tank changer</b>	external, BINDER Gas Supply Service, for connecting 2 gas tanks (CO <sub>2</sub> , N <sub>2</sub> or O <sub>2</sub> ), with audible and visual alarms, as well as zero-voltage alarm output	•	•	8012-0408
<b>pH-neutral detergent</b>	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	8012-2250
<b>Qualification documents</b>	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO <sub>2</sub> , O <sub>2</sub> , pressure, depending on unit			
	Digital in PDF format	•	•	7057-0001
	Hard copy inside folder	•	•	7007-0001
	IQ/OQ/PQ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, CO <sub>2</sub> , O <sub>2</sub> – or pressure, depending on unit			
	Digital in PDF format	•	•	7057-0005
	Hard copy inside folder	•	•	7007-0005
<b>Rubber pads</b>	set anti-slip feet	•	•	8012-2030
<b>Shaker „Professional“</b>	Shaker and controller equipped with LEMO connectors, exclusively for CB with electric access port, 100 – 240 V, 50/60 Hz	•	•	8012-1772
<b>Shaker „Universal“</b>	Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz	•	•	8012-1771
<b>Shelf, perforated</b>	Stainless steel	•	–	8012-2167
		–	•	8012-2183
	for divided inner door			
	Stainless steel, divided	•	–	8012-1888
		–	•	8012-1996
<b>Stacking adapter</b>	for the thermally isolated stacking of two BINDER CO <sub>2</sub> incubators	•	–	9051-0035
		–	•	9051-0039
<b>Stacking frame</b>	stable, vibration-free stacking frame on casters with stop brake for safe stacking of two CB series units	•	–	9051-0040
		–	•	9051-0041
<b>Water supply</b>	Set consisting of 10 bottles, each with 1,000 ml of sterile humidification water, including peristaltic tubing, connectors, and fine gas filters			
	for versions with active humidification	•	•	8009-1104
	Set consisting of 12 empty, refillable tubular bags including peristaltic tubing, connectors, and fine gas filters			
	for versions with active humidification	•	•	8012-2255
	Set consisting of 3 empty, refillable tubular bags including peristaltic tubing, connectors, and fine gas filters			
	for versions with active humidification	•	•	8012-2256

Designation	Description	CBF 170	CBF 260	Art. No.
WLAN kit	The kit contains a client bridge that establishes a wireless connection between BINDER units and APT-COM4, LIMS, or customer-specific software via an Ethernet interface. It provides an alternative solution in situations where units need to be positioned in locations without an on-site Ethernet connection. In secured networks, installation and configuration must be performed by the customer's IT service.	•	•	8012-2262

# BINDER products

CO<sub>2</sub> incubators

Incubators

Cooling incubators

Growth chambers

Ultralow temperature freezers

Drying and heating chambers

Safety drying chambers

Vacuum drying chambers

Constant climate chambers

Dynamic climate chambers

Battery test chambers

Walk-in-chambers

Multi Management Software



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**BINDER GmbH**  
Tuttlingen, Germany

Tel +49 7462 2005 0  
[info@binder-world.com](mailto:info@binder-world.com)  
[www.binder-world.com](http://www.binder-world.com)

**BINDER Asia Pacific (Hong Kong) Ltd.**  
Kowloon, Hong Kong, P.R. China

Tel +852 39070500  
[asia@binder-world.com](mailto:asia@binder-world.com)

**BINDER Environmental Testing  
Equipment (Shanghai) Co., Ltd.**  
Shanghai, P.R.China

Tel +86 21 685 808 25  
[china@binder-world.com](mailto:china@binder-world.com)

**BINDER Inc.**  
Bohemia, NY, USA

Tel +1 631 224 4340  
[usa@binder-world.com](mailto:usa@binder-world.com)