



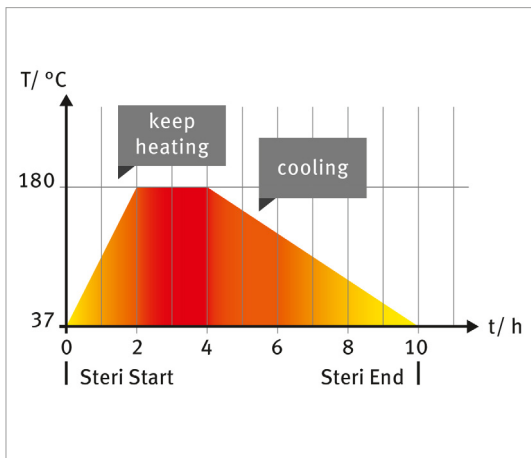
CO₂ INCUBATORS

CO₂ incubators

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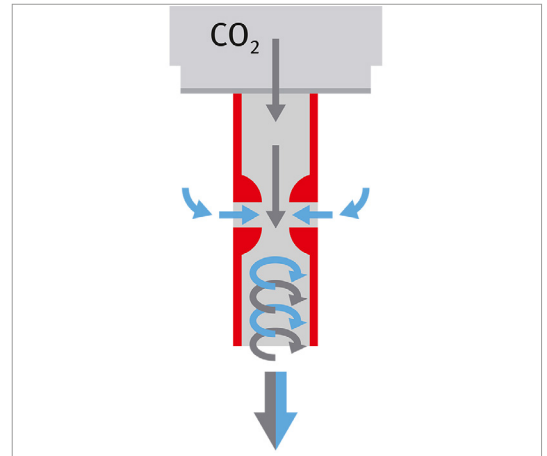
BINDER CO₂ incubators are safe, reliable, smart, and economical. So they are perfect for every cell culture laboratory. The CB-S series masters common standard applications such as cell production with ease. The CB series is also recommended for cell-based assays and is indispensable to the development 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.

ADVANTAGES AT A GLANCE



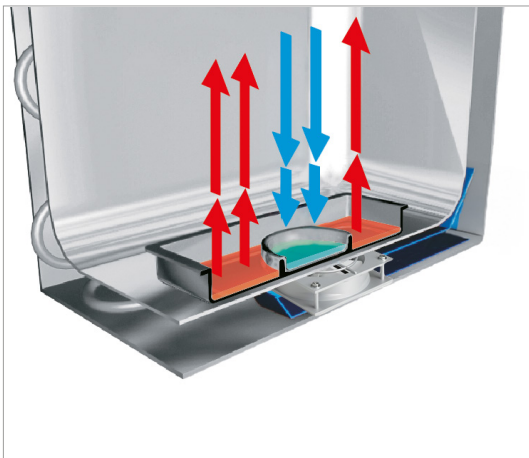
MINIMAL RISK OF CONTAMINATION

Thanks to 180°C hot-air sterilization, the entire interior is fully sterilized at the touch of a button. In the CB and CBF series, the CO₂ sensor is also sterilized.



OPTIMUM CELL GROWTH

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

The Permadry™ humidification system, featuring a convenient water tray, ensures rapid humidification as soon as the door is opened

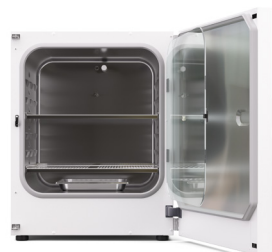
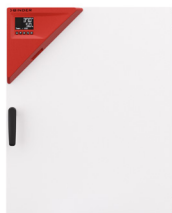


THE “LESS IS MORE” INTERIOR CONCEPT

Ensures quick and easy cleaning thanks to the seamless stainless steel inner chamber, without obstructive fixtures. No consumables are required.

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 CO₂ measurements conducted in real time.



Model 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

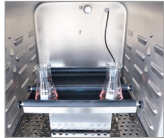
IMPORTANT CHARACTERISTICS

- Humidification system with condensation protection
- Tried-and-tested anti-contamination concept with 180°C hot air sterilization
- CO₂ sensor with infrared technology
- Seamless stainless steel inner chamber
- CO₂ gas mixing jet with Venturi effect
- PID controller with clear LCD display
- Internal data logger; measured values can be read in an open format via USB
- Troubleshooting system with visual and acoustic alarms
- Interfaces: Ethernet, USB, zero-voltage alarm contact

AVAILABLE SIZES

Designation	Interior volume	Kurz-URL
CB-S 170	170	> go2binder.com/en-CB-S170
CB-S 260	267	> go2binder.com/en-CB-S260

OPTIONAL EQUIPMENT

Stacking options	Stacking adapters support the space-saving installation and safe stacking of BINDER CO ₂ incubators.	
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.	
CO₂ - shaker	High-quality solution for the incubation of suspension cell cultures in CO ₂ incubators. The exclusive use of corrosion-resistant components in the stainless steel housing makes the CO ₂ incubator suitable for gassed incubators with increased CO ₂ concentrations and nearly saturated air humidity.	
Copper interior fittings	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.	
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.	

► All extras online go2binder.com/en

TECHNICAL DATA

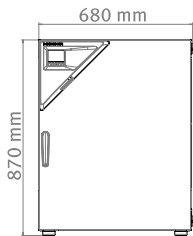
Data		
Designation	CB-S 170	CB-S 260
Option model	Standard	Standard
Performance Data Temperature		
Temperature range	+6 °C above ambient temperature to 50 °C	+6 °C above ambient temperature to 50 °C
Temperature uniformity at 37°C	0.3 ± K	0.4 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K
Recovery time after door was opened for 30 s at 37°C	6 min	8 min
Performance Data Climate		
Humidity range	90 ...95 % RH	90 ...95 % RH
Gas Data		
CO ₂ range	0 ...20 Vol.-% CO ₂	0 ...20 Vol.-% CO ₂
CO ₂ measuring technology	IR	IR
CO ₂ recovery time after door was opened for 30 s at 5 vol. % CO ₂	5 min	5 min
Electrical data		
Rated Voltage	...	
Nominal power	1,3 kW	1,5 kW
Unit fuse	10,0 A	
Phase (Nominal voltage)	1~	1~
Dimensions and weights		
Interior volume	170 L	267 L
Net weight of the unit (empty)	96 kg	116 kg
Load per rack	10 kg	10 kg
Permitted load	30 kg	40 kg
Wall clearance back	100 mm	100 mm
Wall clearance sidewise	50 mm	50 mm
Housing dimensions not incl. fittings and connections		
Width net	680 mm	740 mm
Height net	870 mm	1,020 mm
Depth net	715 mm	785 mm
Internal Dimensions		
Interior width	560 mm	620 mm
Interior height	600 mm	750 mm
Interior depth	505 mm	575 mm
Inner doors	1	1
Unit doors	1	1
Environment-specific data		
Sound-pressure level	41 dB(A)	41 dB(A)
Energy consumption at 37°C	45 Wh/h	55 Wh/h
Fixtures		
Number of shelves (std./max.)	2/6	2/8

ORDERING INFORMATION

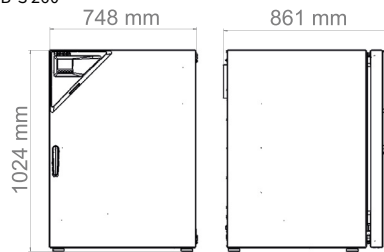
Interior volume [L]	Power supply - unit fuse	Plug*	Version	Model version	Art.-No.
Model CB-S 170					
170	200...230 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	CBS170-230V	9040-0219
			with left-hand hinge	CBS170-230V-L	9040-0220
	100...120 V 1~ 50/60 Hz -16,0 A	NEMA 5-20	Standard	CBS170UL-120V	9040-0221
			with left-hand hinge	CBS170UL-120V-L	9040-0222
Model CB-S 260					
267	200...230 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	CBS260-230V	9040-0223
	100...120 V 1~ 50/60 Hz -16,0 A	NEMA 5-20	Standard	CBS260UL-120V	9040-0224

DIMENSIONS AND WEIGHTS

CB-S 170



CB-S 260



OPTIONS

Designation	Description	CB-S 170	CB-S 260	*	Art.-No.
Access port with silicone plug	back				
	30 mm	•	•	01	8012-2729
	left				
	30 mm	•	•	01	8012-2730
	right				
	30 mm	•	•	01	8012-2731
Analog output 4-20 mA	for temperature and CO ₂ values (outputs not adjustable)	•	•	02	8012-1839
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	•	-	8012-1112
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	•	•	-	8012-1131
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	-	8012-1549
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	-	8012-1570
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	-	8012-1591
Calibration certificate, temperature and CO ₂	for temperature and CO ₂ , temperature measurement in center of chamber, CO ₂ measurement performed using test gas at 37 °C and 5 % CO ₂	•	•	-	8012-0228
Door lock	lockable door handle	•	•	-	8012-1014

ACCESSORIES

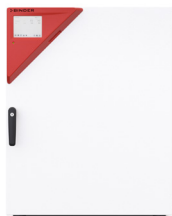
Designation	Description	CB-S 170	CB-S 260	*	Art.-No.
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 networked units.				
	version 4, BASIC edition	•	•	-	9053-0039
APT-COM™ 4 GLP-Edition	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11.				
	version 4, GLP edition	•	•	-	9053-0042
APT-COM™ 4 PROFESSIONAL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.				
	version 4, PROFESSIONAL edition	•	•	-	9053-0040
Base	the base equipped with casters is used for the secure positioning and leveling of a BINDER CO ₂ incubator	•	–	-	9051-0028
		–	•	-	9051-0044
Cleaning kit	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
Copper interior fittings	Set consisting of 2 shelves (all-copper) and a water pan (copper-plated)	•	–	-	8012-1997
Gas cylinder connection set	for CO ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	-	8012-0014
Gas tank changer	external, BINDER Gas Supply Service, for connecting 2 gas tanks (CO ₂ , N ₂ or O ₂), with audible and visual alarms, as well as zero-voltage alarm output	•	•	-	8012-2344
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	-	8012-2250
Qualification documents	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 ₂ , O ₂ – or pressure, depending on unit				
	Digital in PDF format	•	•	-	7057-0005
	Hard copy inside folder	•	•	-	7007-0005
	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 ₂ , O ₂ , pressure, depending on unit				
	Digital in PDF format	•	•	-	7057-0001
	Hard copy inside folder	•	•	-	7007-0001
Rubber pads	set anti-slip feet	•	•	-	8012-0702
Shaker „Universal“	Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz	•	•	-	8012-1771
Shelf, perforated	Stainless steel	•	–	-	8012-2167
		–	•	-	8012-2183
Stacking adapter	for the thermally isolated stacking of two BINDER CO ₂ incubators	•	–	-	9051-0035
		–	•	-	9051-0039
Stacking frame	stable, vibration-free stacking frame on casters with stop brake for safe stacking of two CB series units	•	–	-	9051-0040
		–	•	-	9051-0041
Water supply	Set consisting of 6 bottles, each with 1,000 ml of sterile humidification water	•	•	-	8009-1192

SERVICES

Designation	Description	*	Art.-No.
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	05	DL50-0020
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	05	DL20-0710
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	05	DL30-0140
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	05	DL30-0102
CO ₂ calibration	CO ₂ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate	05	DL30-0401
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	05	DL41-0200
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	05	DL44-0500
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one test temperature specified by the user in the center of the usable space, including certificate	05	DL20-0975
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	05	DL20-0608
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate	05	DL20-0875
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	05	DL30-0109
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	05	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	05	DL30-0127
Unit commissioning	Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)	05	DL10-0170
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0540

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

The powerful and versatile CB CO₂ 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 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

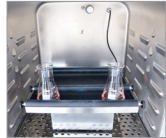
IMPORTANT CHARACTERISTICS

- Optimized humidification system with condensation protection
- Tried-and-tested anti-contamination concept with 180°C hot air sterilization
- Hot-air sterilizable CO₂ sensor with single-beam infrared technology
- Seamless inner chamber made of stainless steel with flanges as shelf support system
- Fanless interior with Venturi CO₂ 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 CO₂ system for protecting the pH of cell cultures

AVAILABLE SIZES

Designation	Interior volume	Kurz-URL
CB 56	53	> go2binder.com/en-CB56
CB 170	170	> go2binder.com/en-CB170
CB 260	267	> go2binder.com/en-CB260

OPTIONAL EQUIPMENT

Stacking options	Stacking adapters support the space-saving installation and safe stacking of BINDER CO ₂ incubators.	
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.	
CO₂ - shaker	High-quality solution for the incubation of suspension cell cultures in CO ₂ incubators. The exclusive use of corrosion-resistant components in the stainless steel housing makes the CO ₂ incubator suitable for gassed incubators with increased CO ₂ concentrations and nearly saturated air humidity.	
Copper interior fittings	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.	
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.	
BINDER Customized Solutions	Using a BINDER series production product as a basis, we develop individualized solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty.	

► All extras online go2binder.com/en

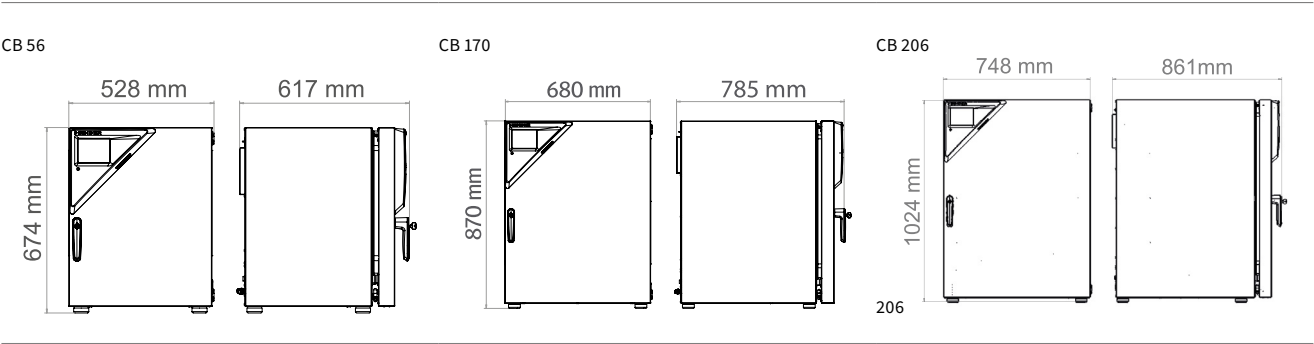
TECHNICAL DATA

Data			
Designation	CB 56	CB 170	CB 260
Performance Data Temperature			
Temperature range	+4-6 °C above ambient temperature to 50 °C	+4-6 °C above ambient temperature to 50 °C	+5-6 °C above ambient temperature to 50 °C
Temperature uniformity at 37°C	0.3 ± K	0.3 ± K	0.4 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K	0.1 ± K
Recovery time after door was opened for 30 s at 37°C	5 min	6 min	6 min
Performance Data Climate			
Humidity range	90 ...95 % RH	90 ...95 % RH	90 ...95 % RH
Gas Data			
CO ₂ range	0 ...20 Vol.-% CO ₂	0 ...20 Vol.-% CO ₂	0 ...20 Vol.-% CO ₂
CO ₂ measuring technology	IR	IR	IR
CO ₂ recovery time after door was opened for 30 s at 5 vol. % CO ₂	5 min	5 min	5 min
Electrical data			
Nominal power	0,8 kW	1,4 kW	1,5 kW
Phase (Nominal voltage)	1~	1~	1~
Dimensions and weights			
Interior volume	53 L	170 L	267 L
Net weight of the unit (empty)	53 kg	95 kg	125 kg
Load per rack	10 kg	10 kg	10 kg
Permitted load	30 kg	30 kg	40 kg
Wall clearance back	100 mm	100 mm	100 mm
Wall clearance sidewise	50 mm	50 mm	50 mm
Housing dimensions not incl. fittings and connections			
Width net	528 mm	680 mm	740 mm
Height net	674 mm	870 mm	1,020 mm
Depth net	545 mm	715 mm	785 mm
Internal Dimensions			
Interior width	400 mm	560 mm	620 mm
Interior height	400 mm	600 mm	750 mm
Interior depth	330 mm	500 mm	575 mm
Inner doors	1	1	1
Unit doors	1	1	1
Environment-specific data			
Sound-pressure level	41 dB(A)	41 dB(A)	41 dB(A)
Energy consumption at 37°C	45 Wh/h	55 Wh/h	65 Wh/h
Fixtures			
Number of shelves (std./max.)	2/3	3/6	3/8

ORDERING INFORMATION

Interior volume [L]	Power supply - unit fuse	Plug*	Version	Model version	Art.-No.
Model CB 56					
53	200...230 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	CB056-230V	9040-0197
	100...120 V 1~ 50/60 Hz -16,0 A	NEMA 5-20	Standard	CB056UL-120V	9040-0198
Model CB 170					
170	200...230 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	CB170-230V	9040-0199
			with left-hand hinge	CB170-230V-L	9040-0200
			with O ₂ control 0.2–20%	CB170-230V-O	9040-0201
			with O ₂ control 0.2–20% and left-hand hinge	CB170-230V-OL	9040-0202
	100...120 V 1~ 50/60 Hz -16,0 A	NEMA 5-20	Standard	CB170UL-120V	9040-0203
			with left-hand hinge	CB170UL-120V-L	9040-0204
			with O ₂ control 0.2–20%	CB170UL-120V-O	9040-0205
			with O ₂ control 0.2– 20% and left-hand hinge	CB170UL-120V-OL	9040-0206
Model CB 260					
267	200...230 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	CB260-230V	9040-0207
			with O ₂ control 0.2–20%	CB260-230V-O	9040-0208
	100...120 V 1~ 50/60 Hz -16,0 A	NEMA 5-20	Standard	CB260UL-120V	9040-0209
			with O ₂ control 0.2–20%	CB260UL-120V-O	9040-0210

DIMENSIONS AND WEIGHTS



OPTIONS

Designation	Description	CB 56	CB 170	CB 260	*	Art.-No.
Access port with silicone plug	back					
	30 mm	•	•	•	01	8012-1390
	left					
	30 mm	•	•	•	01	8012-1391
	right					
	30 mm	•	•	•	01	8012-1392
Analog output 4-20 mA	for temperature and CO ₂ values (outputs not adjustable)	•	•	•	02	8012-1840
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	•	•	•	-	8012-1132
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	•	-	8012-1550
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	•	-	8012-1571
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	•	-	8012-1592
Calibration certificate, temperature and CO ₂	for temperature and CO ₂ , temperature measurement in center of chamber, CO ₂ measurement performed using test gas at 37 °C and 5 % CO ₂	•	•	•	-	8012-1235
Calibration certificate O ₂	for versions with O ₂ control; a measuring point in center of chamber at 80 Vol.-% O ₂	-	•	•	-	8012-2604
	for versions with O ₂ control; a measuring point in center of chamber at 1 Vol.-% O ₂	-	•	•	-	8012-2603
CELLROLL Set	modular, expandable roller bottle system for cell cultivation, 4 roller bottles	-	•	-	-	8012-1885
	modular, expandable roller bottle system for cell cultivation, 6 roller bottles	-	-	•	-	8012-0572
Electric access port	8-pin, for low voltage with LEMO socket (coverable) and LEMO plug (max. 24 V – 2 A)	•	•	•	-	8012-1848
Inner door, divided	Cell therapy compartmentalization, consisting of 4 inner doors and two shelf levels with one partition wall each	•	-	-	-	8012-2023
	Cell therapy compartmentalization, consisting of 6 inner doors and three shelf levels with one partition wall each					
		-	•	-	-	8012-2024
	for a left-hand door	-	•	-	-	8012-2027
Quick sample access	Cell therapy compartmentalization, consisting of 8 inner doors and four shelf levels with one partition wall each	-	-	•	-	8012-2025
		-	•	-	-	8012-2726
	viewing window (13 x 25 cm) in the inner door for quick access	-	•	-	-	8012-2725
		-	-	•	-	8012-2728

ACCESSORIES

Designation	Description	CB 56	CB 170	CB 260	*	Art.-No.
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 net-worked units.					
	version 4, BASIC edition	•	•	•	-	9053-0039
APT-COM™ 4 GLP-Edition	for working under GLP-compliant conditions. Measured values are docu-mented in a tamper-proof way in line with the requirements of FDA Regu-lation 21 CFR 11.					
	version 4, GLP edition	•	•	•	-	9053-0042
APT-COM™ 4 PROFESSION-AL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.					
	version 4, PROFESSIONAL edition	•	•	•	-	9053-0040
Base		•	-	-	-	9051-0043
	the base equipped with casters is used for the secure positioning and leveling of a BINDER CO ₂ incubator	-	•	-	-	9051-0028
		-	-	•	-	9051-0044
Cleaning kit	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
Copper interior fittings	Set consisting of 3 shelves (all-copper) and a water pan (copper-plated)	-	•	-	-	8012-1918
Gas cylinder connection set	for CO ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	•	-	8012-0014
	for N ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	-	•	•	-	8012-0016
	for O ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	-	•	•	-	8012-0015
Gas tank changer	external, BINDER Gas Supply Service, for connecting 2 gas tanks (CO ₂ , N ₂ or O ₂), with audible and visual alarms, as well as zero-voltage alarm output	•	•	•	-	8012-2344
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	•	-	8012-2250
Qualification documents	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 ₂ , O ₂ – or pres-sure, depending on unit					
	Digital in PDF format	•	•	•	-	7057-0005
	Hard copy inside folder	•	•	•	-	7007-0005
	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 ₂ , O ₂ , pressure, depending on unit					
	Digital in PDF format	•	•	•	-	7057-0001
	Hard copy inside folder	•	•	•	-	7007-0001
Rubber pads	set anti-slip feet	•	•	•	-	8012-0702
Shaker „Universal“	Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz	-	•	•	-	8012-1771

Designation	Description	CB 56	CB 170	CB 260	*	Art.-No.
	Stainless steel	•	–	–	–	8012-2166
		–	•	–	–	8012-2167
		–	–	•	–	8012-2183
Shelf, perforated	for divided inner door					
	stainless steel	•	–	–	–	8012-2058
	Stainless steel, divided	–	•	–	–	8012-1888
		–	–	•	–	8012-1996
Stacking adapter	for the thermally isolated stacking of two BINDER CO ₂ incubators	•	–	–	–	9051-0038
		–	•	–	–	9051-0035
		–	–	•	–	9051-0039
Stacking frame	stable, vibration-free stacking frame on casters with stop brake for safe stacking of two CB series units	–	•	–	–	9051-0040
		–	–	•	–	9051-0041
Water supply	Set consisting of 6 bottles, each with 1,000 ml of sterile humidification water	•	•	•	–	8009-1192

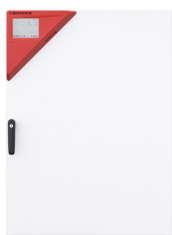
SERVICES

Designation	Description	*	Art.-No.
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	05	DL50-0020
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	05	DL20-0710
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	05	DL30-0140
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	05	DL30-0102
CO ₂ calibration	CO ₂ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate	05	DL30-0401
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	05	DL41-0200
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	05	DL44-0500
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one test temperature specified by the user in the center of the usable space, including certificate	05	DL20-0975
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	05	DL20-0608
O ₂ calibration	O ₂ calibration with 1 measuring point in center of chamber at a specified O ₂ percentage value, including certificate	05	DL30-0402
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate	05	DL20-0875
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	05	DL30-0109
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	05	DL30-0118

Designation	Description	*	Art.-No.
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	05	DL30-0127
Unit commissioning	Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)	05	DL10-0170
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0550

Series CBF | with hot air sterilization and humidity regulation

The BINDER CBF is the high-end CO₂ 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 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

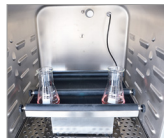
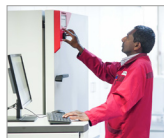
IMPORTANT CHARACTERISTICS

- Contamination-safe humidification system without water pan
- Tried-and-tested anti-contamination concept with 180 °C hot air sterilization
- Hot-air sterilizable CO₂ sensor with single-beam infrared technology
- Seamless inner chamber made of stainless steel with flanges as shelf support system
- Fanless interior with Venturi CO₂ 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 CO₂ system for protecting the pH of cell cultures

AVAILABLE SIZES

Designation	Interior volume	Kurz-URL
CBF 170	170	> go2binder.com/en-CBF170
CBF 260	267	> go2binder.com/en-CBF260

OPTIONAL EQUIPMENT

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.	
Stacking options	Stacking adapters support the space-saving installation and safe stacking of BINDER CO ₂ incubators.	
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.	
CO₂ - shaker	High-quality solution for the incubation of suspension cell cultures in CO ₂ incubators. The exclusive use of corrosion-resistant components in the stainless steel housing makes the CO ₂ incubator suitable for gassed incubators with increased CO ₂ concentrations and nearly saturated air humidity.	
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.	
BINDER Customized Solutions	Using a BINDER series production product as a basis, we develop individualized solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty.	

► All extras online go2binder.com/en

TECHNICAL DATA

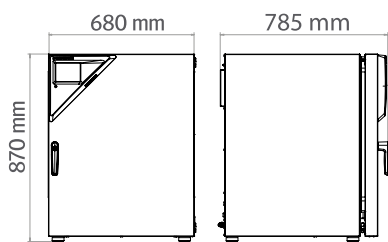
Data		
Designation	CBF 170	CBF 260
Performance Data Temperature		
Temperature range	+6 °C above ambient temperature to 50 °C	+6 °C above ambient temperature to 50 °C
Temperature uniformity at 37°C	0.4 ± K	0.4 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K
Recovery time after door was opened for 30 s at 37°C	6 min	6 min
Performance Data Climate		
Humidity range	50 ...95 % RH	50...95 % RH
Gas Data		
CO ₂ range	0...20 Vol.-% CO ₂	0...20 Vol.-% CO ₂
CO ₂ measuring technology	IR	IR
CO ₂ recovery time after door was opened for 30 s at 5 vol. % CO ₂	5 min	5 min
Electrical data		
Nominal power	1,4 kW	1,5 kW
Phase (Nominal voltage)	1~	1~
Dimensions and weights		
Interior volume	170 L	267 L
Net weight of the unit (empty)	95 kg	126 kg
Load per rack	10 kg	10 kg
Permitted load	30 kg	40 kg
Wall clearance back	100 mm	100 mm
Wall clearance sidewise	50 mm	50 mm
Housing dimensions not incl. fittings and connections		
Width net	680 mm	740 mm
Height net	870 mm	1,020 mm
Depth net	715 mm	785 mm
Internal Dimensions		
Interior width	560 mm	620 mm
Interior height	600 mm	750 mm
Interior depth	500 mm	575 mm
Inner doors		1
Unit doors	1	1
Environment-specific data		
Sound-pressure level	41 dB(A)	41 dB(A)
Energy consumption at 37°C	55 Wh/h	65 Wh/h
Fixtures		
Number of shelves (std./max.)	3/6	3/8

ORDERING INFORMATION

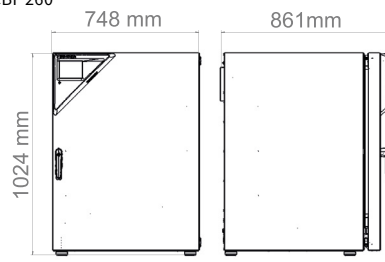
Interior volume [L]	Power supply - unit fuse	Plug*	Version	Model version	Art.-No.
Model CBF 170					
170	200...230 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	CBF170-230V	9040-0211
			with O ₂ control 0.2-20%	CBF170-230V-O	9040-0212
	100...120 V 1~ 50/60 Hz -16,0 A	NEMA 5-20	Standard	CBF170UL-120V	9040-0213
			with O ₂ control 0.2-20%	CBF170UL-120V-O	9040-0214
Model CBF 260					
267	200...230 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	CBF260-230V	9040-0215
			with O ₂ control 0.2-20%	CBF260-230V-O	9040-0216
	100...120 V 1~ 50/60 Hz -16,0 A	NEMA 5-20	Standard	CBF260UL-120V	9040-0217
			with O ₂ control 0.2-20%	CBF260UL-120V-O	9040-0218

DIMENSIONS AND WEIGHTS

CBF 170



CBF 260



OPTIONS

Designation	Description	CBF 170	CBF 260	*	Art.-No.
Access port with silicone plug	back				
	30 mm	•	•	01	8012-1390
	left				
	30 mm	•	•	01	8012-1391
	right				
	30 mm	•	•	01	8012-1392
Analog output 4-20 mA	for temperature and CO ₂ values (outputs not adjustable)	•	•	02	8012-1840
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	•	•	-	8012-1132
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	-	8012-1550
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	-	8012-1571
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	-	8012-1592

Designation	Description	CBF 170	CBF 260	*	Art.-No.
Calibration certificate, temperature and CO ₂	for temperature and CO ₂ , temperature measurement in center of chamber, CO ₂ measurement performed using test gas at 37 °C and 5 % CO ₂	•	•	-	8012-1235
Calibration certificate O ₂	for versions with O ₂ control; a measuring point in center of chamber at 80 Vol.-% O ₂	•	-	-	8012-2604
	for versions with O ₂ control; a measuring point in center of chamber at 1 Vol.-% O ₂	•	•	-	8012-2603
CELLROLL Set	modular, expandable roller bottle system for cell cultivation, 4 roller bottles	•	-	-	8012-1885
	modular, expandable roller bottle system for cell cultivation, 6 roller bottles	-	•	-	8012-0572
Electric access port	8-pin, for low voltage with LEMO socket (coverable) and LEMO plug (max. 24 V – 2 A)	•	•	-	8012-1848
Inner door, divided	Cell therapy compartmentalization, consisting of 6 inner doors and three shelf levels with one partition wall each	•	-	-	8012-2024
	Cell therapy compartmentalization, consisting of 8 inner doors and four shelf levels with one partition wall each	-	•	-	8012-2025
Quick sample access	viewing window (13 x 25 cm) in the inner door for quick access	•	-	-	8012-2726
		-	•	-	8012-2728

ACCESSORIES

Designation	Description	CBF 170	CBF 260	*	Art.-No.
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 networked units.				
	version 4, BASIC edition	•	•	-	9053-0039
APT-COM™ 4 GLP-Edition	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
APT-COM™ 4 PROFESSIONAL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.				
	version 4, PROFESSIONAL edition	•	•	-	9053-0040
Base	the base equipped with casters is used for the secure positioning and leveling of a BINDER CO ₂ incubator	•	-	-	9051-0028
		-	•	-	9051-0044
Cleaning kit	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
Convenient water supply	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
Gas cylinder connection set	for CO ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	-	8012-0014
	for N ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	-	8012-0016
	for O ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose	•	•	-	8012-0015
Gas tank changer	external, BINDER Gas Supply Service, for connecting 2 gas tanks (CO ₂ , N ₂ or O ₂), with audible and visual alarms, as well as zero-voltage alarm output	•	•	-	8012-2344
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	-	8012-2250

Designation	Description	CBF 170	CBF 260	*	Art.-No.
Qualification documents	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 ₂ , O ₂ – or pressure, depending on unit				
	Digital in PDF format	•	•	-	7057-0005
	Hard copy inside folder	•	•	-	7007-0005
	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 ₂ , O ₂ , pressure, depending on unit				
	Digital in PDF format	•	•	-	7057-0001
	Hard copy inside folder	•	•	-	7007-0001
Rubber pads	set anti-slip feet	•	•	-	8012-0702
Shaker „Universal“	Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz	•	•	-	8012-1771
Shelf, perforated	Stainless steel	•	-	-	8012-2167
		-	•	-	8012-2183
	for divided inner door				
		•	-	-	8012-1888
		-	•	-	8012-1996
		•	-	-	9051-0035
Stacking adapter	for the thermally isolated stacking of two BINDER CO ₂ incubators	-	•	-	9051-0039
Stacking frame	stable, vibration-free stacking frame on casters with stop brake for safe stacking of two CB series units	•	-	-	9051-0040
		-	•	-	9051-0041
Water supply	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

SERVICES

Designation	Description	*	Art.-No.
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	05	DL50-0020
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	05	DL20-0710
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	05	DL30-0150
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	05	DL30-0102
CO ₂ calibration	CO ₂ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate	05	DL30-0401
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	05	DL41-0210
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	05	DL44-0500
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one test temperature specified by the user in the center of the usable space, including certificate	05	DL20-0965
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	05	DL20-0609
O ₂ calibration	O ₂ calibration with 1 measuring point in center of chamber at a specified O ₂ percentage value, including certificate	05	DL30-0402
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate	05	DL20-0865
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	05	DL30-0109
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	05	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	05	DL30-0127
Unit commissioning	Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)	05	DL10-0180
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0550

BINDER products

CO₂ incubators

Standard 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
www.binder-world.com

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

Tel +86 21 685 808 25
china@binder-world.com

BINDER Inc.
Bohemia, NY, USA

Tel +1 631 224 4340
usa@binder-world.com