BINDER CO_2 incubators

C | CB

BINDER

Best conditions for your success


BINDER
STERILIZATION
180 °C

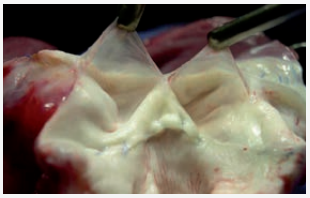
LESS IS MORE

BINDER CO_2 incubators with ANTI.PLENUM DESIGN

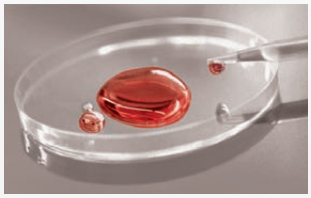
Maximum sample safety and best possible cell growth: BINDER CO_2 incubators with the unique ANTI.PLENUM DESIGN offer key advantages over conventional models. Many manufacturers try to meet these requirements with additional functions and fixtures in the incubator, e.g. ventilators and air ducts. In contrast, BINDER consciously pursues a different strategy: Less is more.

BINDER CO_2 incubators distinguish themselves by a variety of sophisticated technical features designed to create best possible culture conditions, to avoid contamination and to provide user-friendly operation.

- Your benefits
  - Optimal cell growth
  - Minimal risk of contamination
  - Fast and simple cleaning
  - Low running costs



Bio-tissue engineering



Cell biology

In vitro fertilization (IVF)

OPTIMAL CONDITIONS FOR THE BEST CELL GROWTH

Reliable decontamination

- Standard-compliant hot air sterilization at 180 °C
- Automatic sterilization cycle
- Sterilization of the complete inner chamber including all sensors

Homogeneous gas distribution

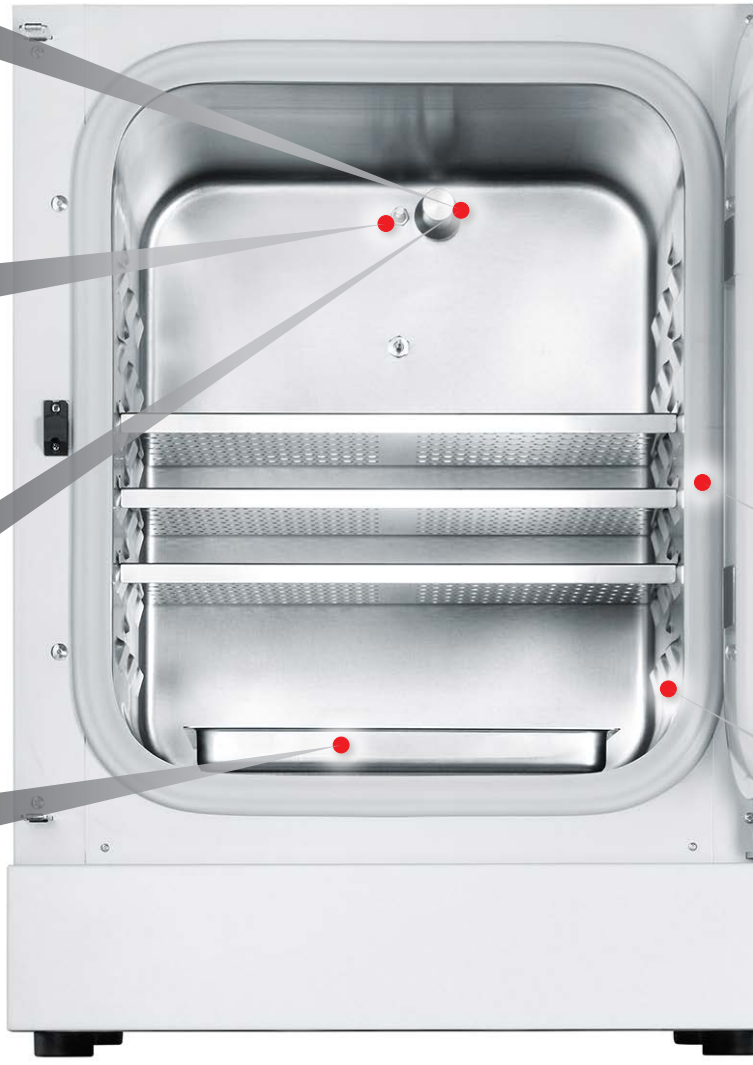
- Gas mixing head with Venturi effect
- Fast and effective gas mixing

Stable pH values

- CO_2 measurement system with infrared sensor technology
- Long-term stable, drift-free measurement
- Built-in sterilizable CO_2 sensor

Condensation management

- Permadry™ double-pan humidification system
- High humidity ensures minimal evaporation of the medium
- Unique cold spot provides dry inner walls



Gas Supply Service

- External gas tank changer for automatic switching to a second gas tank

OPTION

Color LCD display

- Simultaneous display of all important parameters
- Electronic chart recorder
- Variety of options for the graphic display of process parameters

Control for variable O_2 values

- For hypoxic conditions from 0.2% O_2
- For hyperoxic conditions up to 95% O_2

OPTION

Intuitive user interface

- Rotary pushbutton for user-friendly operation
- Continuous data recording
- Log download via USB

Uniform growth conditions

- VENTAIR™ air jacket system
- Homogeneous temperature distribution
- Fast recovery times

ANTI.PLENUM DESIGN inner chamber concept

- Seamless, deep-drawn inner chamber made of stainless steel
- Round corners and integrated shelf support system
- No fixtures such as ventilators, air ducts and filters

CB series | CO_2 incubators with sterilizable sensor

The CB series offers optimal growth conditions and a highly effective anti-contamination concept, now including the word's first sterilizable IR CO_2 sensor. A wide range of options are available for a variety of application-specific solutions. Our premium-class incubator meets the highest demands on accuracy, safety and data communication.

▶ STANDARD EQUIPMENT

- VENTAIR™ air jacket system for temperature control
- BINDER controller with color LCD display
- Standard-compliant hot air sterilization at 180 °C
- Built-in sterilizable CO_2 sensor
- Drift-free infrared CO_2 measurement system
- CO_2 injection through patented gas mixing nozzle
- ANTI.PLENUM Design
- Permadry™ double-pan humidification system
- Electronic error self-diagnostic system
- Zero-voltage alarm relay contact
- Independent temperature safety device class 3.1 (DIN 12880) with visual and audible temperature alarm
- Tightly-fitted inner glass door
- Ethernet interface for APT-COM™ communication software
- Three perforated shelves made of stainless steel
- Door lock
- BINDER test certificate
- Continuous data recording

C series | The standard CO_2 incubator

The C 150 ensures optimal growth conditions. With a highly effective decontamination concept, it meets all basic requirements for cell and tissue cultures.

▶ STANDARD EQUIPMENT

- VENTAIR™ air jacket system for temperature control
- Microprocessor with LED display for temperature and CO_2 concentration
- Standard-compliant hot air sterilization at 180 °C
- Drift-free infrared CO_2 measurement system
- CO_2 injection through patented gas mixing nozzle
- ANTI.PLENUM Design
- Water pan
- Zero-voltage alarm relay contact
- Independent temperature safety device class 3.1 (DIN 12880) with visual and audible temperature alarm
- Tightly-fitted inner glass door
- Three perforated shelves made of stainless steel
- Door lock
- Door hinged right or left
- BINDER test certificate

▶ Wide range of options

Gas-tight, divided inner glass door for undisturbed atmosphere

O_2 control for hyper- or hypoxic culture conditions

Silicone access port for operating external measuring instruments

Gas supply service, external gas tank changer

TECHNICAL DATA
CB | C SERIES




	CB 60	CB 160	CB 220	C 150
Exterior dimensions				
Width (mm)	580	680	740	680
Height (including feet) (mm)	720	919	1069	820
Depth (incl. i-triangle, door handle, connections) (mm)	546	715	715	920
Interior dimensions				
Width (mm)	400	500	560	500
Height (mm)	400	600	750	600
Depth (mm)	330	500	500	500
Interior volume (l)	53	150	210	150
Quantity of racks (standard/max.)	2 / 3	3 / 6	3 / 8	3 / 6
Load per rack (kg)	10	10	10	10
Permitted total load (kg)	30	30	30	30
Weight (empty) (kg)	60	107	121	95
Temperature data				
Temperature range, 7 °C above ambient up to (°C) [1]	60	60	60	50
Temperature uniformity at 37 °C (±K)	0,3	0,3	0,4	0,4
Temperature fluctuation (max.) (±K)	0,1	0,1	0,1	0,1
Recovery time after door was opened for 30 sec [1] at 37 °C (Min.)	4	4	5	5
CO_2 data				
CO_2 range (Vol.-% CO_2)	0 – 20	0 – 20	0 – 20	0 – 20
Setting accuracy (Vol.-% CO_2)	0,1	0,1	0,1	0,1
Recovery time after door was opened for 30 sec [1] at 5 vol. % (Min.)	5	5	5	7
CO_2 measurement	IR	IR	IR	IR
Humidity data				
Humidity (r. F.)	90 – 95	90 – 95	90 – 95	90 – 95
Electrical data				
IP system of housing protection acc. to EN 60529	IP 20	IP 20	IP 20	IP 20
Nominal voltage (±10 %) 50/60 Hz (V)	230	230	230	230
Nominal power (kW)	1,0	1,3	1,5	1,4
Energy consumption[3] at 37 °C (W)	80	100	120	110
Model no.	9040–0088	9040–0092	9040–0096	9040–0078

[1] The recovery times of the gas concentrations inside the chamber following door opening refer to a connection pressure of 2.0 bar. Decreasing supply pressure leads to longer recovery times. //
[2] Use this value for dimensioning air condition systems. /// All technical data is specified for unloaded units with standard equipment at an ambient temperature of 22 ±3 °C / 71.6 ±5.4 °F and a power supply voltage fluctuation of ±10. The temperature data is determined in accordance to BINDER factory standard and DIN 12880, observing the recommended wall clearances of 10 % of the height, width and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

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