

CO2 incubators for optimal cell growth

Tuttlingen, December 17, 2025 – CO2 incubators from BINDER guarantee optimal growth conditions for cell cultures and reduce the risk of contamination to a minimum with a well-designed anti-contamination concept.

All models operate with 180°C hot air sterilization, which completely decontaminates the interior so that each test series can start with a biological reset. When it comes to the interior of CO2 incubators, BINDER believes that less is more. The seamless inner chamber made of stainless steel and minimalist interior design without fan or built-in components prevent contamination hiding places and facilitate cleaning.

Effective humidity management ensures a consistently high level of humidity in the interior atmosphere, while low air movement reduces the tendency for drying out. The high relative humidity (over 90% RH) is ensured by a water pan in the interior, which can be easily removed. Simultaneous humidity control is an important component of the anti-contamination concept and ensures that mold growth is prevented despite high humidity. Excess humidity is recondensed in the double water pan and the interior walls remain dry.

CB series units feature a hot air sterilizable CO2 sensor with single-beam infrared technology that responds quickly to changes in gas concentration and can remain in the unit during hot air sterilization. The Fail-safe CO2 system offers additional protection by maintaining the CO2 concentration within a range that allows cell cultures to survive in the event of a sensor defect.

CB units are optionally available with O2 control and are therefore also suitable for cell cultivation under hypoxic conditions.

With the CBF series, BINDER also offers units that feature humidity regulation with active humidification and dehumidification using sterile hot steam and do not require a water pan.

Further information on CO2 incubators:

[CO2 incubators from BINDER](#)

[Model CB 170](#)

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About BINDER GmbH:

BINDER is the world's largest specialist in simulation chambers for scientific and industrial laboratories. The range of products offers flexible and customized solutions not only for routine applications but also for highly specialized work in research and development, production, and quality assurance. More than 22,000 units leave the plant at our headquarters in Tuttlingen, Germany annually. Many respected companies and research facilities all over the world rely on BINDER simulation chambers, whether they need them for cell or tissue cultivation, long-term storage, product testing, or material testing.

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