

# New products 2015



Evolution in simulation technology



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# Evolution in simulation technology

MADE IN  
GERMANY

BINDER's **new products** are truly something to celebrate. Like the KBF, a master of efficiency that provides **1,020-liter** capacity for large specimen volumes. Or the KMF, offering big-hitting performance with an **extended humidity range** of up to 98 % RH; the ED, FD, and FED drying chambers offering the very best in performance and accuracy; the cutting-edge BD and BF incubators that provide **unparalleled performance**; the **C 170**, an efficiency marvel among CO<sub>2</sub> incubators; or the KT – the best in its class with a **170-liter unit** that marks a world first in this model range.

# KBF 1020 | Constant climate chamber

BINDER constant climate chambers are the specialist equipment of choice when it comes to precise stability tests under climate conditions that are kept constant for an extended period. Now, an even larger capacity is being added to this proven size range of 115, 240, and 720-liter products. The new unit, featuring a 1,020-liter capacity, offers an excep-

tionally large amount of space for extensive quantities of test specimens. The interior, which has a cube-shaped design, makes it easy and efficient to test even very large specimens. This offers notable benefits to the pharmaceutical industry as well as every other application area.



## THE MASTER OF EFFICIENCY WITH 1,020-LITER CAPACITY

- New size
- XXL testing chamber in smart cube shape
- Robust stainless steel inner chamber
- Long-life steam humidifying system

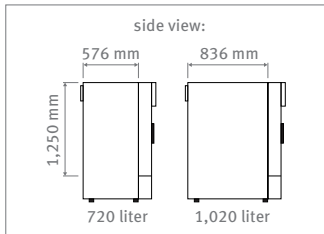


More information about KBF series at [www.binder-world.com](http://www.binder-world.com)

## STANDARD FEATURES

- Temperature range of 0 to 70 °C
- Humidity range from 10 % to 80 % RH
- APT.line™ chamber preheating technology
- Humidity regulation with capacitive humidity sensor and vapor humidification
- Controller with time-segment programming
- Tightly-sealed inner door made of tempered safety glass
- Stainless steel rack
- Access port with silicone plug
- Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
- Computer interface: Ethernet
- Flexible water supply

## Get ahead with BINDER technology



- + **Highly efficient at storing large specimen volumes and large specimens** thanks to a cube-shaped interior with a volume of 1,020 liters.



- + **No risk of electrochemical corrosion** as the inner chamber and all fixtures are made entirely from stainless steel.



- + **Flexible water and waste water management at any location** using the standard connection to the domestic water supply or an optional external water supply set. Sewage pump integrated as standard for discharges of up to 1 m in height, as well as a connection option for the BINDER Pure Aqua system (see figure) in order to provide the required water quality.



- + **Excellent temperature distribution, even if fully loaded** thanks to the innovative BINDER APT.line™ preheating chamber technology.



- + **Precise humidification and finely adjustable humidity control** thanks to a capacitive humidity sensor and responsive steam humidification.

## KMF series | Constant climate chambers

BINDER's constant climate chambers with expanded temperature / humidity range ensure absolutely constant test conditions throughout the testing area during stress tests. The successful product portfolio of 115, 240, and 720-liter units now meets the requirements of everyday laboratory work with even greater precision. In addition to the exceptionally

broad temperature range of -10 to 100 °C, the relaunched series features enormous power reserves in the extended humidity range of up to 98 % RH. Ideal for meeting the test standards of the electronics sector as well as many other applications.



### BIG-HITTING PERFORMANCE WITH UP TO 98 % RH

- Extremely wide humidity range
- Broad range of applications
- Ideal for stress tests with 85 °C / 85 % RH
- Robust stainless steel inner chamber
- Long-life steam humidifying system

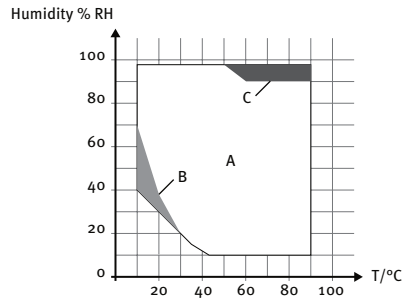


More information about KMF series at [www.binder-world.com](http://www.binder-world.com)

### STANDARD FEATURES

- Temperature range of -10 to 100 °C
- Extended humidity range of 10 % to 98 % RH
- APT.line™ preheating chamber technology
- Humidity regulation with capacitive humidity sensor and vapor humidification
- Controller with time-segment programming
- Tightly-sealed inner door made of tempered safety glass
- Stainless steel rack
- Access port with silicone plug
- Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
- Computer interface: Ethernet
- Flexible water supply

# Get ahead with BINDER technology



A Guaranteed condensation-free range  
 B Time-limited operation (max. 24 hours)  
 C Condensation in the inner chamber may be possible

- + **Condensation-free test mode at high temperatures and humidity levels** thanks to an extended climate range of up to 98 % RH.



- + **No risk of electrochemical corrosion** as the inner chamber and all fixtures are made entirely from stainless steel.



- + **Flexible water and waste water management at any location** using the standard connection to the domestic water supply or an optional external water supply set (see figure). Sewage pump integrated as standard for discharges of up to 1 m in height, as well as a connection option for the BINDER Pure Aqua system in order to provide the required water quality.



- + **Excellent temperature distribution, even if fully loaded** thanks to the innovative BINDER APT.line™ preheating chamber technology.



- + **Precise humidification and finely adjustable humidity control** thanks to a capacitive humidity sensor and responsive steam humidification with a new long-life steam humidification system.

## ED, FD, FED series | Drying and heating chambers

When it comes to drying, sterilization, or heating, BINDER drying and heating chambers with natural or forced convection ensure quality and reliability every time. Thanks to the extensive redevelopment they have undergone, these all-rounders are even more firmly focused on addressing the requirements of laboratories. Not only does the state-

of-the-art design indicate the shape of BINDER product portfolios in the future, the convenient operation and efficiency – plus outstanding temperature accuracy thanks to the very latest APT.line™ technology – also make these pioneering units truly stand out.



### AT THE CUTTING EDGE WITH UNPARALLELED PERFORMANCE

- Superior, exceptionally accurate drying chambers
- Temperature distribution – perfect and precise
- Innovative unit design
- Simple and ergonomic door opening
- State-of-the-art controller



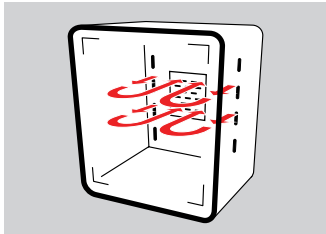
More information about ED, FD, FED series at [www.binder-world.com](http://www.binder-world.com)

### STANDARD FEATURES

- Temperature range from 8 °C above ambient temperature up to 300 °C
- Electromechanical control of the exhaust air flap
- Integrated independent adjustable temperature safety device
- Controller with LCD display and USB connection
- ED series with natural convection
- FD and FED series with forced convection
- Sizes available: 56, 115, and 260 liters



## Get ahead with BINDER technology



- + **Completely homogeneous temperature distribution with excellent temperature uniformity and fluctuation** thanks to the all-new generation of APT.line™ technology.



- + **Easy, intuitive handling** thanks to state-of-the-art controller with LCD display, excellent readability, and various functions. The alphanumeric display makes it easier to communicate with the unit and read the data. Choice of languages as standard: English, German and French.



- + **Simple data recording** via the USB connector which comes as standard and via Ethernet, which is available as standard for FED and as an option for ED and FD.



- + **Excellent energy efficiency** thanks to low heat dissipation. The insulation, measuring 60 mm in thickness, lowers energy consumption while increasing performance. Figure shows FD and FED



- + **Ergonomic door opening** based on a window handle principle: 6 o'clock = closed, 4 o'clock = open.

## BD, BF series | Incubators

Reproducible incubation conditions are crucial when working with microorganisms. BINDER's reliable incubators, featuring natural or forced convection, provide the perfect way of achieving this. Its completely redesigned incubator series now meet the requirements of laboratories in outstanding fashion. Not only does the state-of-the-art

design of this new generation of incubators ensure convenient operation, its exceptional efficiency and absolutely perfect temperature accuracy thanks to the very latest APT.line™ technology also give it real appeal.



### AT THE CUTTING EDGE WITH UNPARALLELED PERFORMANCE

- Temperature distribution – perfect and precise
- Innovative unit design
- Simple and ergonomic door opening
- State-of-the-art controller

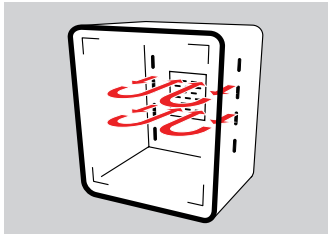


More information about BD, BF series at [www.binder-world.com](http://www.binder-world.com)

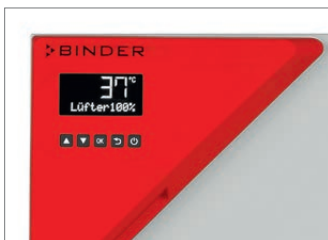
### STANDARD FEATURES

- Temperature range 5 °C above ambient temperature to 100 °C
- Electromechanical control of the exhaust air flap
- Integrated independent temperature safety device
- Controller with LCD display and USB connection
- BD series with natural convection
- BF series with forced convection
- Sizes available: 56, 115, and 260 liters

## Get ahead with BINDER technology



- + **Completely homogeneous temperature distribution with excellent temperature uniformity and fluctuation** thanks to the all-new generation of APT.line™ technology.



- + **Easy, intuitive handling** thanks to state-of-the-art controller with incredibly easy-to-read display as well as controller with LCD display and various functions. The alphanumeric display makes it easier to communicate with the unit and read the data. Choice of languages as standard: English, German and French.



- + **Simple data recording** via the USB connection which comes as standard.



- + **Excellent energy efficiency** thanks to low heat dissipation. The insulation, measuring 60 mm in thickness, lowers energy consumption while increasing performance.  
Figure BD series



- + **Ergonomic door opening** based on a window handle principle: 6 o'clock = closed, 4 o'clock = open.

## C 170 | CO<sub>2</sub> incubator

BINDER CO<sub>2</sub> incubators ensure optimal and reproducible conditions for cell cultivation. With a highly effective decontamination concept, comprehensive equipment, as well as all the necessary options, the new C 170 series reliably covers every basic requirement when it comes to

everyday work in the laboratory. Featuring the same footprint as the previous model, this sophisticated series of units offers a particularly large amount of space for incubating cell and tissue cultures successfully.



### THE EFFICIENCY MARVEL WITH 170-LITER CAPACITY

- Minimum footprint – maximum usable space
- Uncompromising hot air sterilization
- Fanless, hygienic interior
- Sophisticated design for optimum stacking capability

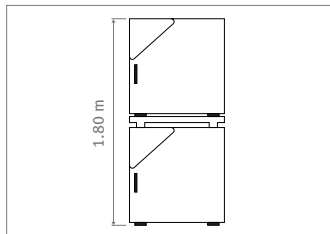


More information about C series at [www.binder-world.com](http://www.binder-world.com)

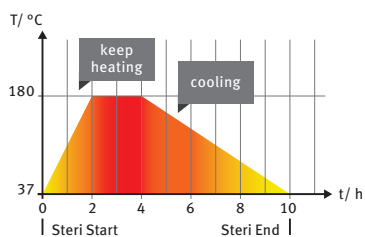
### STANDARD FEATURES

- Temperature range: room temperature plus 7 °C to 50 °C
- Humidity range up to 95 % RH
- Humidification system with condensation protection
- CO<sub>2</sub> gas-mixing jet with Venturi effect
- CO<sub>2</sub> sensor with infrared technology
- Tightly-sealed inner door made of tempered safety glass
- Seamless, deep-drawn inner stainless steel chamber
- Perforated shelves, stainless steel
- Troubleshooting system with visual and acoustic alarms
- Zero-voltage alarm contact

## Get ahead with BINDER technology



- + **Convenient and efficient laboratory work** as stacked units are a pleasure to operate and also offer the ideal footprint-to-usable space ratio.



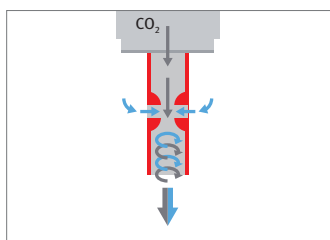
- + **Absolute sterility** thanks to 180 °C hot air sterilization at the push of a button.



- + **Easy to clean** thanks to a seamlessly deep-drawn inner chamber with rounded corners and a novel, two-part rack without screw connections.



- + **Uniform growth conditions and low degradation of cell growth if door is opened occasionally** thanks to the VENTAIR™ air jacket system. This ensures homogeneous temperature distribution and quick recovery times.



- + **Optimum cell growth with stable pH value** thanks to CO<sub>2</sub> measurement with long-term stability, using a drift-free infrared CO<sub>2</sub> measurement system, and CO<sub>2</sub> distribution by means of a BINDER gas mixing head according to the Venturi principle.

## KT 170 | Cooling incubator

Cooling incubators from BINDER are the expert equipment of choice when it comes to stable incubation processes. They work reliably in a range of plus 4 °C to 100 °C and are characterized by their homogeneous temperature distribution thanks to APT.line™ technology. In particular, the food and beverage industry as well as large-scale test

laboratories rely on the proven KT series. Now, a 170-liter model has been added to the portfolio containing 53 and 115-liter models. A unit of this size in this class, and with thermoelectric cooling, is only available from BINDER and represents the perfect combination of minimum footprint and maximum usable space



### THE BEST IN ITS CLASS WITH 170-LITER CAPACITY

- Size with thermoelectric cooling that cannot be found anywhere else in the world
- Minimum footprint – maximum usable space
- Unbelievably robust design
- Exemplary environmentally-friendly credentials

**KT 170**  
Available from  
July 2015



More information about KT series at  
[www.binder-world.com](http://www.binder-world.com)

### STANDARD FEATURES

- Temperature range 4 °C to 100 °C
- Adjustable fan speed
- Cooling with Peltier module
- Controller with time-segment and real-time programming
- Inner door made of tempered safety glass
- Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
- Computer interface: Ethernet
- Data recording and USB interface

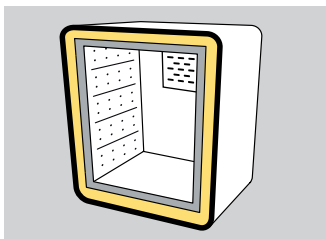
## Get ahead with BINDER technology



- + **The table unit with 170-liter capacity offers plenty of room and a user-friendly depth.** BINDER is the world's only manufacturer to offer a unit of this size in this class with thermoelectric cooling.



- + **Reliable and reproducible incubation conditions** thanks to APT.line™ preheating chamber technology. This enables homogeneous temperature distribution thanks to a horizontal airflow on both sides, even when fully loaded.



- + **Extremely robust and long-lasting quality – made in Germany,** as there is a layer of foam between the boiler and the housing which provides permanent protection. This ensures maximum stability and low-particle, cold bridge-free thermal insulation.



- + **Flexible, mixed stacking options** thanks to a stacking adapter and the same base dimensions as the KT 115.



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