

# BINDER WORLD

Edition 01/2009

April 2009



## Dear BINDER WORLD Readers:

2008 was a most interesting year for us. Once again we were able to achieve double-digit growth. Given the current economic situation, this can be considered a special achievement in itself. We now have the opportunity to maintain this remarkable growth rate in fiscal 2009 and continue on our profitable growth trend. Our product portfolio will be expanded with new innovative products to help us succeed.

And we have already started. In April 2009, we will launch the new smaller CB 53 model on the market to augment our CO2 incubator program. In addition, a 115 L and a 720 L model has been added to the MKF series. These new products will help us to strengthen our position on the market, expand our presence, and maintain our dynamic growth rate. The second BINDER Vision Days event is planned for May to demonstrate to customers and employees alike what is happening at BINDER and what motivates us.

Enjoy reading your new issue of BINDER WORLD!

Sincerely  
Yours,

+++ International News +++ International News +++ International News +++ International News +++

## ArabLab and ArabHealth 2009

This year, Binder GmbH was represented by Mr. Stanton and Ms. Kutzer on its stand at the annual ArabLab exhibition. This exhibition was held at the new facilities in the Dubai Airport Expo Centre. This new venue is ideally situated right next to the airport, which is very convenient for both the exhibitors as well as visitors.

The number of participating German companies grew once again, and they now occupy almost one complete hall. Customers mainly came from Iran, United Arab Emirates, and Saudi Arabia. The CB 53 turned out to be the star of the show and attracted a lot of attention.



Mr. Preter held a product training session on Sunday, January 11, 2009, which focused on climatic chambers and CO2 incubators, followed by a product overview. This training session was attended by 25 dealers, who were also our guests at a sumptuous dinner in the Al Bustan Rotana Hotel. This exhibition again provided BINDER the opportunity to present its product range. As always, the German exhibits drew the most visitors. BINDER will introduce new products again at next year's exhibition.

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### Light Night at the Albstadt-Sigmaringen College



Supporting students has always been one of BINDER's primary concerns, and so the students of the Albstadt-Sigmaringen College had some extra help in planning their LightNight project. The project team, which included Nelly Leitner, a temporary employee at BINDER, planned all the details for this event and helped with the overall organization and implementation. With more than 1,200 happy guests, the Light Night on November 20, 2008 was a total success, and we are pleased that we were able to make a small contribution with our support.

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### LFI and BINDER – or the question of how long a cookie is fit for consumption

All food products have one advantage and one disadvantage: if they are fresh they are healthy and delicious – but if they go bad, i.e. beyond the expiration date, they can be detrimental to health. That is why it is critical to be able to reliably predict how long it takes for a product to decay – and determine the 'best-before' date accurately. Leatherhead Food International (LFI) was established in England in 1919 and has now grown into a worldwide organization whose business is to determine the shelf life of foodstuffs. Such tests are relatively easy for perishable products, because one simply has to measure the time it takes for them to naturally degrade to the point of being unfit for consumption. Using the same method for foods that have a long shelf life is simply impractical, however, because of the extended time required. It would also yield inconsistent or incorrect results. Here parameters such as humidity, temperature, and light play a major role. These parameters can be simulated in a BINDER test chamber. Since companies are interested in marketing their products as quickly as possible, more than 1,000 member companies are already registered with LFI. LFI uses standardized methods to test products under extreme conditions. Shelf life can be safely determined within only a few weeks by testing in a BINDER KBF 720 chamber, for example.



There is a difference between the minimum shelf life date and the expiration date!

The minimum shelf life date must be stated on packaging and indicates the date up to which foodstuffs can be consumed without any significant deterioration in taste and quality, and without the risk to health if stored properly. Since this involves the minimum shelf life date, foodstuffs can usually still be used after the specified date, and are sometimes even offered by supermarkets at special discounts. In the case of foodstuffs, expiration date actually means "consumption date," and is the date after which a product may no longer be sold ("sell by.....") or the date by which it should be consumed ("use by....."). Sale is prohibited after the consumption date has expired. Something to keep in mind when you go shopping!

Picture: Dr Paul Berryman - Chief Executive – LFI & Mr Adrian Stanton – Sales Director - BINDER GmbH sharing a picture in front of the BINDER KBF720 ICH, agreeing on the LFI - Binder Collaboration Shelf-life Testing Service.

++++ News from Product Management +++++ News from Product Management +++++

### Innovative redesign brings large improvement – BINDER ensures direct and convenient access to test samples

Easy access to test samples to ensure convenient loading and unloading is a feature that is normally not available in large environmental test chambers. BINDER has solved this problem elegantly and efficiently by simply rotating the chamber 90°. BINDER's MKF, with a volume of 720 L, has an inner chamber that is 120 cm wide and only 60 cm deep, a configuration that stands in total contrast to our competitors' products. This unique design allows test samples to be loaded easily, and even samples at the back can be conveniently reached without disturbing other samples.



In addition to this clear advantage, the new generation of MKF chambers incorporates several other innovative features as standard equipment at no extra cost. These benefits are the result of 25 years of experience in the scientific sector. BINDER produces some 21,000 units every year at its modern plant in Tuttlingen. Drawing on experience gained from dealing with the extremely stringent requirements in medical science and research, such as precise maintenance and control of temperature and humidity, BINDER also incorporates these advanced features into its products for industrial applications. The ability to mass-produce modular environmental test chambers results in competitive pricing and short delivery times. Equipment options such as a heated observation window with interior lighting integrated into the door are standard features on BINDER units; competitors offer these options only at extra cost.

The new MKF covers a temperature range of 10 to 95°C [50 – 203 °F] at a relative humidity of 10 to 98%; in a dry environment, temperatures ranging from -40 to 180°C [-40 – 356 °F] can be achieved. Such precision in temperature control is available only from BINDER and is standard in all of our units. MKT and MKFT units for deep-freezing applications can achieve even -70°C [-94 °F] at a rate of change of approximately 5°C [9 °F] per minute. These outstanding heating and cooling speeds permit even faster temperature changes, thus allowing more complex test cycles. A number of new technical refinements have led to this temperature precision. The LED lighting system is now integrated into the equipment door observation window, *outside* of the interior chamber. This increases service life and prevents heat transfer into the chamber. The door is heated separately to prevent condensation. The chamber is now completely sealed with a precise closing mechanism consisting of two gaskets, one on the door and one on the housing, as well as new door fittings.

The heater and the fan are now installed on the back panel of the units to provide extra space. The horizontal airflow design ensures natural simulation by means of a symmetrical airflow that feeds air through the entire sidewall surface, uniformly and without turbulence. The heaters are now arranged along the periphery of the fan, thus accelerating the heating-up process. Thanks to this new heater arrangement, access ports can now be provided at almost any position in the sidewalls. An additional cable grommet can be integrated into the door. The refined humidification and dehumidification system injects superheated pressurized steam into the interior through an electronically controlled valve to ensure rapid and homogenous steam distribution. Humidity is controlled by a capacitive humidity sensor, a feature "borrowed" from BINDER's scientific equipment series. The sensor is completely maintenance-free, drift-free, and ensures uninterrupted testing. This test chamber operates using either distilled water or tap water with a hardness of up to 8°dH. The BINDER Pure Aqua Service system is an easy-to-use and flexible water purification system that extends maintenance service intervals and can be operated independent of water quality, even with water that has a hardness of more than 8°dH.

All of the technical components, such as the steam supply module, the refrigeration and the electronics, are located in the lower cabinet for easy accessibility. The integrated water tank can be filled from the front without being removed. The standard MKF chamber is supplied complete with casters. "Intelligent Performance" is BINDER's slogan for its new generation of environmental simulation test chambers. The deep freezing MKFT and MKT version will also be released on the market in the near future.

++++ News from Product Management +++++ News from Product Management +++++

### The latest BINDER arrival: a highly compact and efficient 53 liter CB Incubator for optimal cell growth

The latest and smallest member of BINDER's CO<sub>2</sub> incubator family is now available. With 45% lower operating costs and a small footprint, it is environmentally friendly and also conserves precious laboratory space. Equipped with advanced options as well as hot air sterilization at 180° C, the CB 53 is unique in its ability to offer all of these functions in a compact format. This new BINDER family member is particularly well suited for applications in cell and tissue cultivation for in-vitro fertilization (IVF). Start enjoying the benefits of the 53 L compact model for your daily laboratory tasks today!



This compact 53 liter incubator chamber requires a minimum of precious laboratory space and thus offers an optimal space/benefit ratio. The inner chamber has integrated, smooth-edged shelf supports, which are formed as part of the inner chamber wall in the deep-draw process, i.e. no sharp corners or edges. The advanced design permits operation without any interior fittings such as fans or filters. This facilitates cleaning and prevents contamination deposits from forming in inaccessible corners. The Permadyr®-System ensures dry, condensation-free walls while operating at a relative humidity of more than 95%. The water level can be visually inspected and water replacement is easy. All of these features ensure that the specimens being tested have the best conditions for healthy growth. Another

significant advantage for BINDER customers is that it is 45% more cost-effective than the CB 150 model in terms of energy use and CO<sub>2</sub> consumption.

This smaller CB model can also compete with the larger 150 and 210 L models in its standard technical features as well as all other aspects. The CO<sub>2</sub>/air mixture is injected into the inner chamber through a jet; since the inner chamber is under a slight vacuum, the mixture is distributed homogeneously because of the generated venturi effect. This obviates the need for a fan, which creates turbulence and complicates cleaning. An infrared sensor selectively measures the CO<sub>2</sub> concentration in real-time. A microprocessor controls temperature and CO<sub>2</sub> concentration. The standard model includes an automatic self-diagnostic system with optical and acoustic alarm functions as well as a potential-free switchover contact for continuous central monitoring of the CO<sub>2</sub> concentration.

The main applications for this new BINDER addition are in cell biology, bio-tissue engineering, microbiology, the pharmaceutical industry, IVF, human and veterinary medicine, and dental technology, i.e. all applications with demanding requirements for long-term stability, reliability, homogeneity, and reproducibility of results.

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### Documentary film about Tuttlingen, center of medical technology

The film "On the Razor's Edge" will be shown on the SWR TV channel on May 9, 2009 at 6:15 pm. It presents a very intimate perspective of our region, its population, and the medical technology industry. Part of this exciting film also portrays how the industry continues to expand its strength in the light of globalization, and how it stands up against competition from Pakistan. It takes a close look at various characters, including both trainees and top managers, and how they deal with anxiety and hope at a time of radical changes in global markets. This film is also a tale about the creation of a unique coalition of over 400 medical technology businesses within an extremely limited space, their gradual specialization to serve niche markets, and how they coexist in a friendly atmosphere, helping each other. Don't miss this interesting program!

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**Achema**

11. – 15. Mai, 2009

Frankfurt am Main, Germany

Hall 6.1 Stand D26-D28

You can get a complimentary admission ticket to the fair by contacting

[katharina.bay@binder-world.com!](mailto:katharina.bay@binder-world.com)**Intertech – 20<sup>th</sup> Technology Trade Fair**

May 14 – 16, 2009

Dornbirn, Austria

Hall 10 Stand 23

**IranAgro**

May 24 – 26, 2009

Theran, Iran

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