Follow up

IBA 2009 IS ALREADY HISTORY AND THE SUCCESS IT GENERATED MIGHT HAVE TAKEN ALL THOSE INVOLVED BY SURPRISE

GHM/Tillmann

+ Before the exhibition, baking+biscuit international reported on many novelties. You can still access this information on our website www.bakingandbisuit.com. The following introduces interesting topics that we noticed at the fair.

++ Brabender
Farinograph

++ Brabender

BRABENDER GMBH & CO. KG
DUISBURG, GERMANY

Optimized reproducibility

Brabender Company from Duisburg, Germany, introduced its latest Farinograph generation for the simplification of flour quality determination.

The difference to the former model can be seen at first glance. The new Farinograph-AT has no glass flask and no titrating pipette. The blue water reservoir is integrated into the new instrument and nestles to the frame. A new feature is the water storage. The tank holds two liters of automatically tempered water. This way several flour samples can be quickly processed successively. The water is added automatically; the same applies to the recording of the temperature (water and dough). These new features eliminate human errors during the dosing process and optimize the reproducibility of the tests. Other novelties include a color display for the temperature and the determination of the energy introduced.
As all other Farinographs, the Farinograph-AT is used for the determination of the water

absorption and the rheological properties of dough and batters and for that, a flour-water suspension is filled into a heated measuring mixer. Rotating mixing tools subject the suspension to a defined amount of mechanical stress. The resistance of the dough is measured as a moment of force and plotted in a Farinogram. It shows the water absorption, dough development time, dough stability and degree of dough softening.
This instrument allows the use of many different parameters for individual tests. The mixing intensity, for example, can be adjusted via the variable speed of the mixing tools (from 0 to 200 rpm). This means that the instrument can also be used for the testing of chocolate, chewing gum or cheese. According to Brabender, the Farinograph-AT will be available in February 2010.

COLUSSI ERMES S.R.L.
CASARSA DELLA DELIZIA (PN), ITALY

A class of its own

IIf you like solid development, perfect finish and aesthetic pleasure in mechanical engineering, you would have had lots of fun at the stand of the machine manufacturer, Colussi.

The company displayed a tray cleaning machine. Colussi is also well known, if not famous, for its crate washers. A search for the roots of the company, founded 40 years ago by Giovanni Batista Colussi, leads back to the ham specialists in the region for whom Colossi started to build washing plants. In the meantime, the company has expanded and has 75 employees and an international list of customers, including one German manufacturer of baked goods who ordered these machines for its latest production facility near Munich, and its mother company, an international trade group not known for spending money unwisely on expensive products. This must be stated as otherwise one could assume that the machines produced by Colussi would be investments with all the flair of a grand monument. ▶

++ Colussi Ermes

++ Colussi Ermes
Crate washer

iba 2009 – better than its reputation

79,500 visitors from 150 countries and 1,059 exhibitors – the final report from iba 2009 wallows in its success figures and indeed, the mood at iba 2009 was better than expected despite the fact that it was noticeable that some companies had cut their travel budgets. The responsible managers were present and clearly more projects than were expected took shape or were even sealed in contracts. Again, the world market for baking proved that iba is the most important global bakery fair and that it is an 'industry' event except for a few exhibitors showing shop furnishings, work clothes and decoration articles for the trade. More visitors came from Arabic and African countries than in the past years while the visitors from Eastern Europe were lesser in numbers but not in purchasing power. Companies from the US also arrived almost in their entirety at Düsseldorf despite the fact that the next IBIE will take place in Las Vegas next year.
Unfortunately, iba 2009 had some organizational deficiencies. The reason for this was the fact that the fair took place in Düsseldorf but was organized by the Munich International Trade Fairs Company. Both fair companies from Düsseldorf and Munich preferred to act out their 'competition quarrel' instead of taking care of the interests of visitors, exhibitors and multipliers. Visitors having registered in advance online had to wait for more than one hour for admission; the guiding system in the halls was not very visitor-friendly because obviously nobody felt committed to this. Company events had to take place at the congress center South which is a ruined building far away from the exhibition halls. It could only be reached after a lengthy walk and then visitors had to guess which door would be open for the particular event. The support of the international press can be classified as "not even giving it a try", while the evening event for the exhibitors – an event the exhibitors pay for to motivate their stand personnel for the last exhibition days – was judged by the participants as "nice try but terrific flop".

In future, iba will take place in Munich. The next fair is scheduled for 28 September through 3 October 2012 and it will have to be seen whether it is viewed as enjoyment or otherwise to the visitors as it coincides with the famous Octoberfest. This will increase the fun element but will also affect the accommodation prices. +++

Any product made by Colussi is one of a kind. Each plant is tailor-made. The crates are transported through a pre-washer, a main washer with alkaline bath, the first flushing section, a second flushing section, a station where the water is blown off and finally a hot air drying station. Zero residual moisture is guaranteed. Water filters before and after the main washing step make sure that dirt particles are separated and disposed of. In principle, the cleaning takes place with a large volume of circulating water and not with the application of high pressure. A precondition is the supply of soft water, for example, from a reverse osmosis plant.

The entire housing of the plant is made from 4 mm stainless steel. All welding seams are absolutely smooth as if the plant could be used in pharmaceutical applications. The top part of the housing can be lifted up electrically for easier inspection and repair, if needed. All nozzles are fixed individually to stationary arms and may be replaced one by one as needed. The top and bottom part of the plant are designed in such a way so that no sealing is required.

DE LA BALLINA
MALEVILLE, FRANCE

The combination does it

De la Ballina from Maleville, close to Toulouse, France, combines optical product control with depanners and packaging lines.

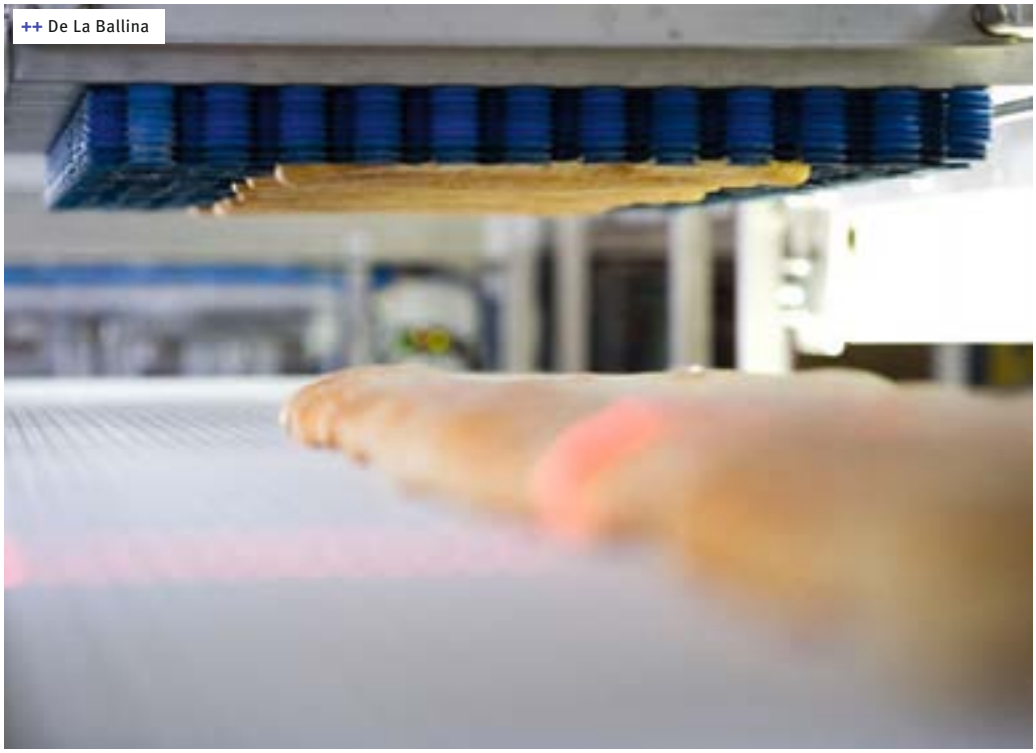
For many years, the company has been known for optical counting and production control systems used in production lines to check products for their dimension, shape and color based on preset tolerance values and to sort out non-conforming products. At iba, the French company demonstrated two developments. The engineers combined optical quality control systems a) with a suction depanner and b) with a crate packing robot for large bread loaves.

The suction depanner was designed for frozen product lines where the products are moved on trays through the entire system. The optical control system, Vision System first scans all products on the tray and checks them for shape, volume and color. Next, the suction depanner lifts the products up. Parallel to this, a second camera inspects the products from below. The combination of the information provided by both cameras is transferred into an operation order for the suction depanner which then places conforming products onto the belt to be moved on to packaging and non-conforming products into a crate or onto another belt.

For the second novelty, De la Ballina combined the optical control system with a robot for more efficient packaging of large bread loaves into transport crates. TThis is different from the first solution whereby the products arrive in neat order as this system will also react to unsorted products that arrive on the transport belt at irregular intervals. The laser-

++ De La Ballina
Depanner

++ Diosna
Wendel tool



supported control system localizes the products on the belt and checks them for shape, size and color. It also monitors the surface for possible defects. Based on the quality features determined, the cameras send a signal to the robot as to where a specific bread piece is positioned and whether it is suitable to be stacked in the transport boxes or whether it should take another path. This way, each individual item is checked for color, shape and volume, counted and then stacked in the respective transport crate. The system can also be adjusted to sort, count and pack small baked items as well. The quality check is the same as for the large bread loaves.
De la Ballina uses a 3D scanner operating with laser technology for both systems. All Vision Control systems from this company are equipped with this technology which allows not only the control of height and volume of the respective baked good but also the determination of different characteristics such as color or dark spots on the surface or bottom of the products. Using a laser has the advantage that a perfect picture of the product is also produced in case the transport belt is stained or the color of the product deviates. Counters which are equipped with a 3D scanner can characterize products by volume instead of area. Contrary to other light sources such as neon light, a laser has a longer service life and higher reliability.

DIOSNA GMBH
OSNABRÜCK, GERMANY

Continuous Wendel kneader

Continuous mixing and kneading plants are being increasingly used. Diosna is now also presenting its own model.

As to be expected from a mixing and kneading specialist, the company from Osnabrück presented something very ▶

++ Diosna

special, a continuous Wendel kneader. In a comparison with other continuous mixers and kneaders available on the market, the Diosna product has a range of different features. First of all, Diosna uses the Rapidojet as a mixer while all other models either combine mixing and kneading in one unit or position two mixers behind each other which operate with almost similar bowls but different tools. In the Rapidojet, the liquid is introduced through high pressure nozzles and meets the dry ingredients which fall down from above. This results in the mixing process and also the introduction of a large portion of energy needed for dough development. The Rapidojet meters the dough directly into the continuous Wendel kneader where it is homogenized.

The kneading tool also makes a difference. While all other continuous kneaders are equipped with tools that operate around a middle axis, the Diosna tool is different. The Wendel tools, fixed on top and at the bottom, turn around each other (see figure). Due to the beneficial kneading properties of the Wendel tools, the dough is processed much more gently, the homogenization properties for the later addition of oil or salt are improved, the temperature rise in the dough is lower and added fruits are less sheared. This all produces dough that is fluffy and elastic and also facilitates the cleaning of the unit, according to Diosna.

++ Franz Haas
Wafer line

FRANZ HAAS WAFFEL- UND KEKSANLAGEN-INDUSTRIE GMBH LEOBENDORF, AUSTRIA

Charming entry level model

GEKKO is a type of complete wafer line operating as an entry level model developed by Austrian machine manufacturer, Haas.

GEKKO is a standardized complete set of machines tuned to each other and supplied within short delivery times. Although these production lines are 'off-the-shelf', customers still have options to choose from. The fully automatic GEKKO production lines are available in two versions with capacities of up to 120 kg or 185 kg of cream-filled wafer fingers per hour. The machine package comprises the baking oven, a batter mixer, a wafer sheet cooler, a combined cream spreader and wafer book builder, a wafer book cooler and the wafer book cutter.

The oven is equipped with 20 or 31 baking plate pairs made from durable special gray cast iron. The self-supporting design of the baking plates ensures unimpeded heat distribution across the entire surface resulting in uniform coloring of the wafer sheets. Possible wafer sheet sizes range from 320-350 x 460-500 mm. The baking plate chain features an automatic tensioning system to compensate for different thermal expansions of the ▶

++ Franz Haas

A bite of spicy innovation

Specialist in food processing equipment

Food for thought, we like to call it. Whenever you visit us at the Rademaker Technology Centre, we will be happy to offer you a bite of spicy innovation, with our latest designs, optimal flexible set up and state-of-the-art machinery. Have a taste of the tailor-made quality of our pizza base and topping lines - or any of our bread, pie, cake, croissant or make-up lines for that matter - and we will explain how they will help you produce products of the highest quality in the most efficient and flexible way.

Call +31 (0)345 543 543 for the specialist in food processing equipment and industrial baking systems. Or visit us at **www.rademaker.com**

Rademaker B.V., Plantijnweg 23, Postbus 416, NL-4100 AK Culemborg, The Netherlands, Tel +31 (0)345 54 35 43, Fax +31(0)345 54 35 90, E-mail office@rademaker.nl

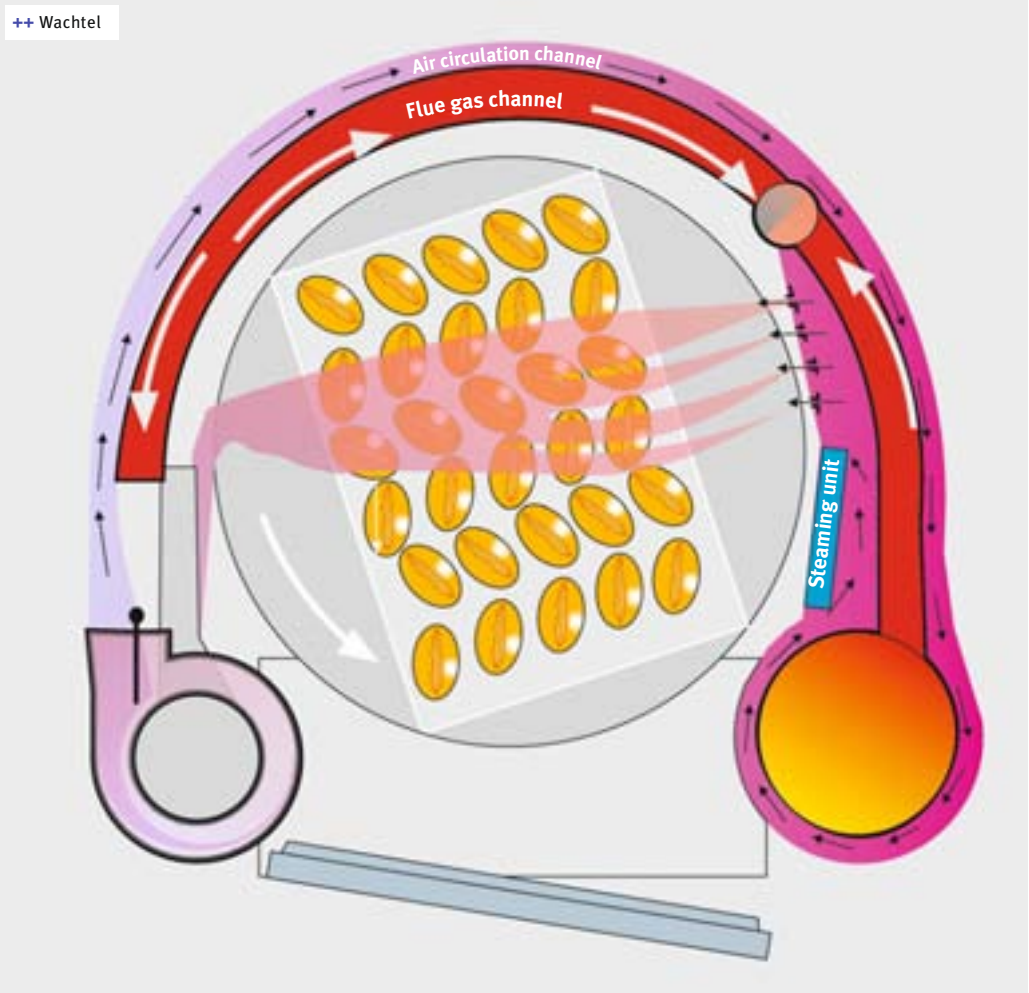
Rademaker

International, Innovative, Inspiring

++ **Wachtel**
STIR rack oven

++ **WP Kemper**
Titan double spiral mixer

++ Wachtel



baking chain and the oven frame. An automatic temperature control keeps the baking temperature constant within +/- 2°C.
The wafer batter is prepared by a robust stainless steel mixer with a mixing tank capacity of 60 l. In the wafer sheet cooler, the freshly baked wafer sheets are cooled down at an ambient temperature to prepare them for cream spreading. The cooler is synchronized to the oven speed and actuated by a photocell-controlled motor. The cream spreader produces wafer books with up to 5 cream layers and 6 wafer layers or wafer books without top sheet. An adjustable pressing roller calibrates the sandwiched wafer books to ensure exact dimensions.
In the cooling tower, the wafer books are cooled until the cream solidifies. Cooling is by heat exchangers and fans inside the cooling tower and a cooling compressor outside. A control system ensures a constant cooling temperature. After cooling, the wafer books are automatically fed into the cutter, where aluminum pushers press them through cutting frames equipped with cutting wires or cutting blades. The cutting frames are easily exchangeable for quick and uncomplicated product changeover. Finally, the wafer fingers are discharged to packaging.
Wafer format and the number of wafer and cream layers can be changed. Furthermore, the wafer engraving pattern, cream flavor, and color and flavor of the wafers sheets offer possibilities which differentiates itself from the competition. In addition, Haas not only supplies and installs the machines, but also offers technology services and training programs to assist customers in raw material selection and recipe development.

WACHTEL GMBH & CO
HILDEN, GERMANY

STIR for rack ovens

Six years ago, Wachtel GmbH & Co from Hilden near Düsseldorf, Germany, introduced STIR, a specific ceramic coating for deck ovens.

Compared to conventional ovens, the physical properties of this coating enhance the portion of infra-red heat that participates in the baking process. The infra-red heat penetrates much faster to the center of the baked good than

convection heat thus leading to a quicker starch gelatinization and formation of a fine, elastic crumb. The baking process is accelerated and more moisture retained in the product. Currently, there are more than 750 of these types of ovens in operation worldwide.
At this year's iba, Wachtel launched a rack oven equipped with the STIR technology. Two heat transfer systems are combined in the oven; convection of the rack oven and radiation from the STIR coating. Added to that, the new rack oven called COMPACT STIR is also equipped with a patented new "plane heat exchanger". Instead of guiding the air in small chambers, it now circulates behind the entire back of the baking chamber (see figure) which is STIR coated. In this way, heat is not only transported to the baked goods via moving air but additionally radiated from the coated walls.

WP KEMPER GMBH
RIETBERG, GERMANY

Nomen est omen

WP Kemper presented a heavy duty spiral mixer with the apt name of "Titan" at iba.

The double spiral mixer is designed for handling a dough quantity of 240 kg. Considering a cycle time of 9 minutes, the hourly capacity equates to more than 1,500 kg. The drive can be controlled infinitely which means that depending on the product and raw materials the introduction of energy can be precisely controlled via the time. The entire unit is equipped with a roll-out bowl made from matt finished stainless steel which can be wet-cleaned. According to Kemper, energy efficient motors help in lowering the energy consumption by up to 15% compared to traditional plants. +++


++ WP Kemper