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### PROCESS AND PACKAGING

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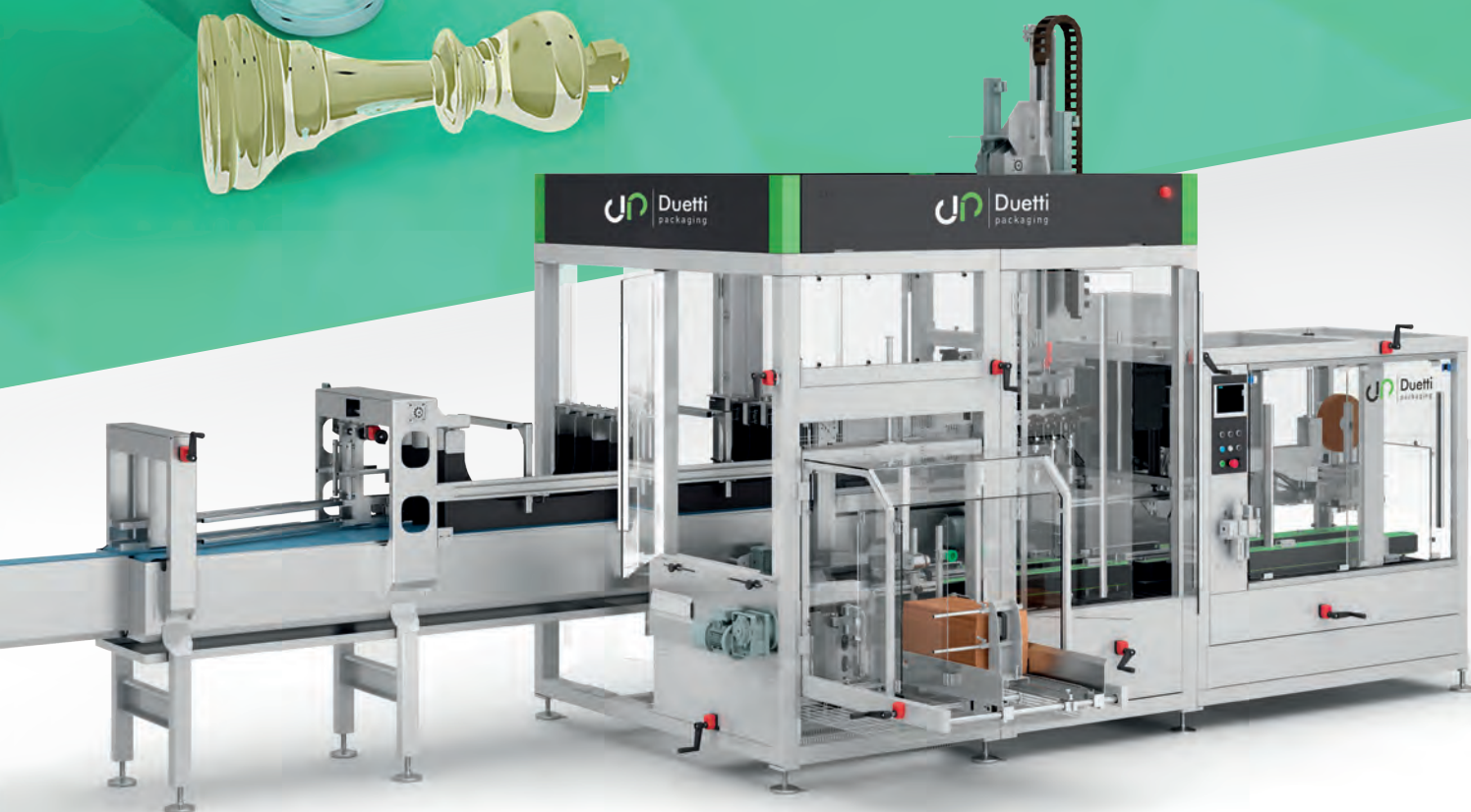




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## DRINK TECHNOLOGY MAGAZINE

Digital magazine in English focusing on lines, plants and equipment for bottling and beverage industries. Four issues a year, delivered to more than 20.000 beverage industries and to more than 3.000 suppliers, worldwide. The magazine has an extra launch before all the main international exhibitions about beverage technology.



[www.drinktechnologymag.com](http://www.drinktechnologymag.com)





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**EDITRICE**  
**zeus**







# Golden macadamias, world's largest macadamia processor,

## ACQUIRES TOMRA FOOD'S LATEST SORTING TECHNOLOGIES TO FUTURE-PROOF ITS COMPETITIVE ADVANTAGE

**W**hen a group of South African macadamia farmers decided 20 years ago to collaborate in processing and marketing their crops themselves, they initiated a strategy that would prove hugely successful. Today this ambitious cooperative business, Golden Macadamias, is the global leader in one of the nut industry's fastest-expanding sectors. Golden Macadamias' success has been achieved by meeting the stringent quality requirements of export markets to tap into the booming international demand for macadamias. Attaining the highest product quality with large production volumes has been made possible by investing in the best available technologies. The most recent example of this is Golden Macadamias' acquisition of the new TOMRA 5C premium optical sorting machine, explicitly developed for nut and dried fruit applications. When this machine is combined with TOMRA's unique Biometric Signature Identification (BSI) scanning technology, it can detect and eject product defects that no other technology can see.

### Perfect conditions for a world-leader

With the newly developed orchards, the South African crop volume grew from 9,036 metric ton (Mt) Dry-Nut-in-Shell (DNIS) in 2001 to an estimate of 57,834 Mt DNIS in 2021 (SAMAC). This growth of 540% over the past 20

**Anticipating the need to produce macadamias in even greater quantities while ensuring perfect quality, South African cooperative business Golden Macadamias has invested in a TOMRA 5C sorting machine with Biometric Signature Identification technology**



years was necessary for the macadamia industry to stay relevant in the international market. The South African macadamia industry contributes roughly 20 - 25% of the world's macadamias, expressed as NIS volume (INC). South Africa is the largest contributor, with other significant contributors like Australia, Kenya, and China. Macadamias are still seen as a young industry and com-







prise about 1 - 2% of the total world tree nut basket, with Almonds, Walnuts, Pistachios, Cashews and Hazelnuts contributing 95%.

Golden Macadamias' 21,000 square-foot production facility is located in the northeast of the country, 200 miles east of Johannesburg, in a small hamlet just outside the city of Mbombela. This region is enriched by fertile soils and a subtropical climate, perfect for growing citrus and tropical fruits and sugarcane. This part of the world is also blessed with cool, dry winters, much better for preserving nut quality than more tropical regions where harvesting has to be done in warm and wet conditions.

The Golden Macadamia expansion project broke ground on 25th August 2020 after several delays caused by the COVID-19 lockdown. However, the project team has not let these hard times come in the way of progress, and their initial ambitious target of building the factory in 15 months is still a reality. The goal of the factory is to be operational in the 2022 season.

To put the magnitude of the new project into perspective, the earthworks consisted of moving and re-engineering 66,000 m<sup>3</sup> of soil, the equivalent of filling 27 Olympic-sized swimming pools. The building has used nearly 800 tonnes of reinforced structural steel, equating to 500 km of steel bars. The project will pour about 12,300 m<sup>3</sup> of concrete and lay 1.7 million bricks that would stretch from Nelspruit to Johannesburg if placed side by side.

Norman Smith, Area Sales Manager Africa, TOMRA Food, said: "Today 98% of the macadamia crop is exported. Approximately 55% of South Africa's macadamias are sold to the kernel market, mostly for export to the USA, Europe, and Asia. The other 45% goes to the in-shell market, some for sale domestically but mostly for export to China, where consumers prefer to crack the shells themselves. It is the kernel market which demands the greatest product quality."

### A mix of manual and automated sorting

Macadamia nuts are harvested after they have fallen naturally to the ground. The first task is to remove the green outer husks, then the nuts in their shells are sorted to remove foreign materials and defective products. After this, the nuts are graded by size. Because two-thirds of each nut comprises shell, processors have to deal with an extremely high defect level after cracking the nuts. Significant quantities of shell must be moved removed to clean up the kernel.



Norman Smith Area Sales Manager

Some macadamia sorting is still done the traditional way, by hand. In addition to grading being done manually, nuts are put into a water bath early in the production process, where only the unwanted immature and under-developed nuts float to the surface and can be manually removed. But human sorters are unavoidably subjective, imperfect, and more vulnerable to error when tired or bored.

Manual sorting can also diminish product quality because handling kernels makes them oilier.

To minimize these drawbacks, Golden Macadamias complements the sorting tasks that have to be done manually with sorting wherever possible by machines. Unlike human beings, automated sorters can assess nuts objectively, accurately, consistently, and at remarkable speed for hour after hour without any deterioration in efficiency. What's more, mechanical sorters can detect and eject a vast range of in-shell defects invisible to the human eye. Product quality is enhanced through these automated capabilities, throughput is high, food waste minimized, and yield improved.

To take advantage of these capabilities, Golden Macadamias employs TOMRA's BSI technology after the nuts are cracked and before they are manually graded.

### Impressive results

Golden Macadamias controls every aspect of production and insists on world-class standards from all of its shareholder farmers. Due to the results shown by the Nimbus BSI+, the business decided to continue developing its partnership with TOMRA as part of its expansion project in South Africa by acquiring 10 TOMRA 3C machines and an additional TOMRA 5C with BSI+ technology.

Peter Edmondson, General Manager at Golden Macadamias, commented: "Our partnership with TOMRA has proved strong throughout the years. It has allowed us





to pioneer the ideal processing solution for the macadamias market, where we continuously develop new solutions and technologies.”

The TOMRA 3C eliminates foreign materials, including stones, shells, and sticks, and, depending on the sorting process, can achieve an incredible efficiency of up to 99.5% purity. It is also well-suited to separating shell from kernel with a low giveaway. Better still, this machine can do all this while sorting more than 20 tons of nuts per hour - a much higher throughput than any of its competitors. The TOMRA 3C can also be used in a second position on the line to remove major discolorations, rotten and moldy kernel, and any remaining shell.

Norman Smith explained: “To examine nuts not only externally but also internally, TOMRA’s unique BSI+ technology scans materials with both near-infrared (NIR) and visible spectrum wavelengths. This instantly compares the biometric characteristics of objects to features stored in its database to determine whether they should be accepted or rejected. This technology has an unrivaled ability to detect and reject hard-to-see and nearly invisible defects. In macadamias, such defects include early germination; mold; immature and shriveled nuts; cracked, pale, and dark or black shells; the ‘791 spot’ kernel disorder; and insect damage from stink bugs, nut borer moths, and false codling moths.”

### Future-proofing with rapid return on investment

Peter Edmondson said: “Throughputs and product quality are both very important to us. We currently work two eight-hour shifts five days per week throughout the whole six- to eight-month production season, and our production volumes are continually increasing. TOMRA’s machines handle this pressure well, and we have been very impressed by the results delivered by BSI+ technology. After cracking and before manual grading, we have been able to halve the level of unsound nuts from 8% to just 4%. No other technology can match this.”

“As well as identifying the hard-to-find defects, TOMRA’s BSI technology has increased factory throughput by 10%. This means the payback period for the technology will be no longer than about two years.”

These results convinced Golden Macadamias to purchase the recently-launched successor to the Nimbus, the TOMRA 5C, the latest platform to use BSI+ technology. In addition to being developed specifically for the nut and dried fruit industry, this premium optical sorter will help future-proof Golden Macadamias’ production line by connecting to the cloud-based data platform TOMRA Insight. This subscription-based service gathers and securely stores data from sorting machines that can unlock machine performance improvements, transforming sorting from an operational process into a strategic management tool - another way in which Golden Macadamias will simultaneously increase production volumes while also ensuring world-class product quality.



TOMRA 3C



TOMRA 5C



Peter Edmondson  
General Manager Golden Macadamias







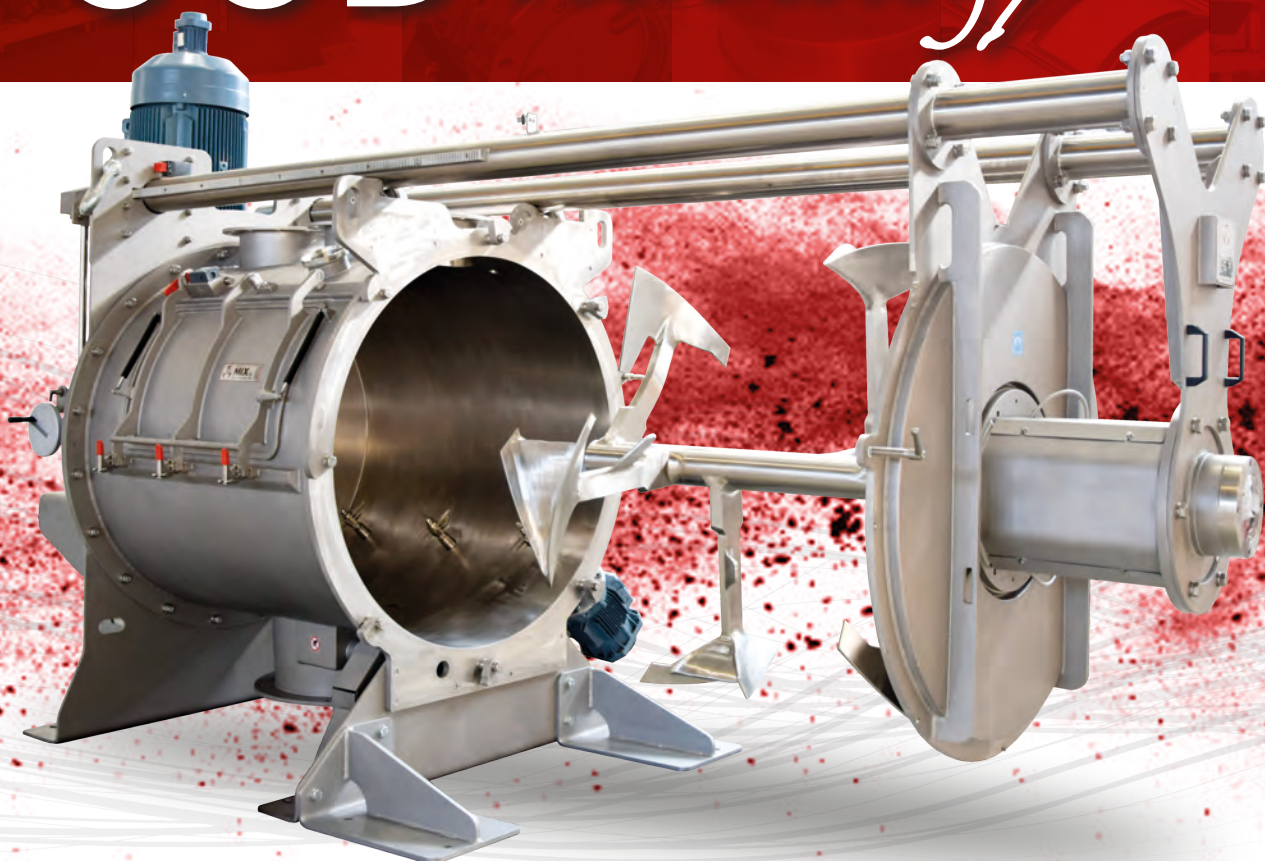
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# LABELPACK , PACKAGING OF BAKED SWEETS

**F**low-pack packaging machines offer the most high performance solutions for packaging sweet baked goods (for example brioches, rolls, snack cakes, cookies, and breadsticks), creating a very protective package while maintaining the visibility of the product inside thanks to the use of special neutral or printed plastic films.

Some sweet products are packaged loose in plastic bags with the classic vertical packaging machines, which

are capable of creating pillow bags or square-bottom bags. The use of neutral or partially printed plastic film makes it possible to manage the packaging of small production lots by customising the package during the packaging phase through the application of a self-adhesive label which displays all of the product information.

The LABELX® labelling machines can be perfectly integrated into flow-pack packaging lines with a high or low bobbin, for label application that

keeps up with the constant flow, electronically synchronised with the movement speed of the packaging film and on vertical packaging machines with application systems that can be integrated in the film unwinding area or in the forming tube area.

Two different LABELX® labelling machines are available: 140mm wide and 250 mm wide. The advanced management electronics guarantee precision of the application at any speed. All of the operating parameters can be managed from a



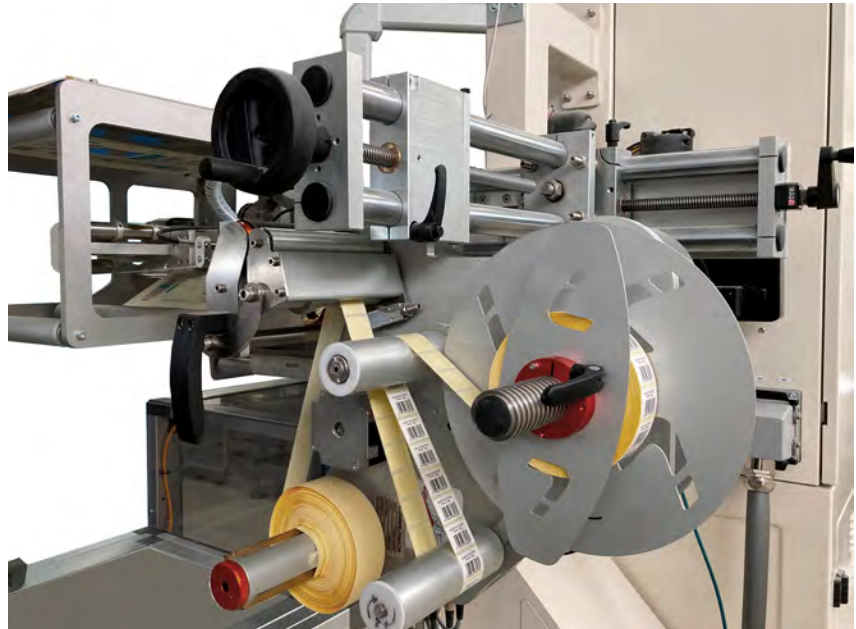




**LABELPACK®**  
LABELLING EVOLUTION

simple and functional touch-screen operating panel.

Thanks to the integration of a printing and thermal transfer unit, LABELX® labelling machines can transform into high performance print & application systems that are capable of solving online-print issues with variable data like: product name, ingredients, bar code, and other customised information. The print data is managed by the BarTender® advanced label creation and printing software.



Label your world, label your life.

**LABELX®**

A perfect choice for food industry.

Labelling solutions for cans, jars, bottles, trays, boxes and bags.

Print & Apply solutions for boxes and pallets.



The LABELX® JR is suitable for low and medium productivity applications and, like all of the labelling machines produced by LABELPACK®, can be equipped with printing and thermal transfer modules for the printing of variable data and bar codes.

It can be configured to all application systems available on the market and with numerous accessories that allow for easy integration on the various kinds of packaging machines.

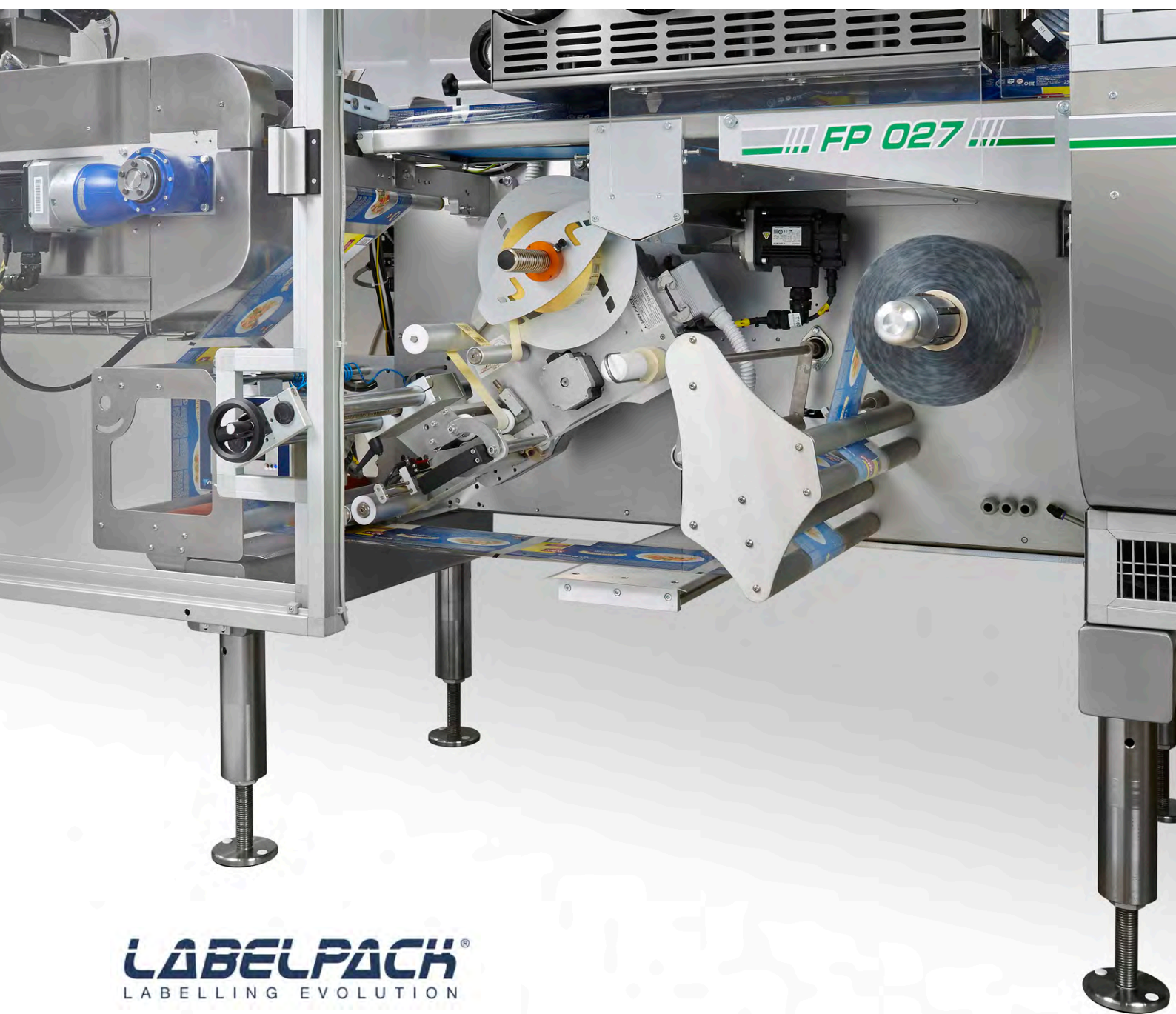
LABELX® labelling machines are the heart of the MODULAR and COMPACT labelling systems. These systems are specifically designed for automatic labelling downstream of the packaging machine for primary packaging in which integration on the packaging machine itself is not possible.

The system has a modular structure with a stainless steel tubular frame that houses the labelling units and the conveyor belt which transports the products and other accessories

necessary for the proper application of labels on the package.

The direct and indirect collaboration with numerous manufacturers of flow-pack and vertical packaging machines has allowed LABELPACK® to develop solutions which are always up-to-date, adapted to the ongoing technological evolutions in the sector, and able to respond to the need for flexibility and reliability requested by users. 🏠

**[www.labelpack.it](http://www.labelpack.it)**



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croissants



baking pan for

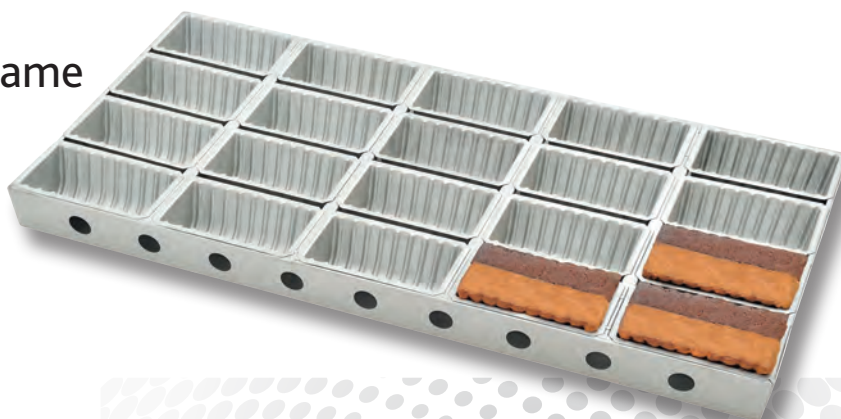


muffins

cake



baking frame



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for bread  
and cake baking  
industries

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# ERREPAN SRL THE ITALIAN MANUFACTURER OF BAKING PANS KEEPS GROWING

**E**rrepan keeps growing. The company has been producing metal pans for the confectionery and bread industry for more than thirty years now and is continuing to grow both on the national and foreign markets, acquiring new customers and strengthening existing relationships.

Errepan has always focused its production on standard items for the bakery industry and the hospitality sector as well as on custom-made products for the food industry. Nowadays, the company is constantly investing in the production of machinery that will optimise the manufacturing process and improve the customer's experience. Among the latest innovations are the automatic laser welding station and the new punching machine with automatic loading and unloading system, with a



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website



doubled working range, which combines high energy savings and reduced processing times.

Thanks to a flexible production structure, the company can offer its customers tailor-made products, studying and providing customized solutions. A further guarantee of the high-quality of Errepan's products is the fruitful collaboration that the company has with manufacturers of machinery and plants. Errepan is fond of teamwork and is a reliable partner in turnkey projects.

Moreover, its range of products is growing with new shapes and models that are designed to meet customers' requirements.

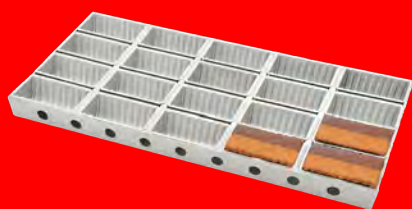
Whether you need a flat tray or a pan for muffins, croissants, plum-cakes or a set of moulds for white bread, at Errepan you'll find what you're looking for. As for the confectionery sec-

tor, there's a great demand for twinkly moulds, doughnut, sponge cake and other special shapes for single-portion snacks, while the request for hamburger buns and hot-dog rolls in the bread sector is always very high. On its website, the company gives plenty of space to the presentation of all its products, with technical details and lots of pictures. Now, it is also possible to "visit the company" from the comfort of your own home, thanks to a virtual tour that shows all the stages of the company's production process.

For any other information, Errepan's staff is available at all times to help you, explaining its products and finding the most suitable solution for each customer. 🏠

**www.errepan.com**





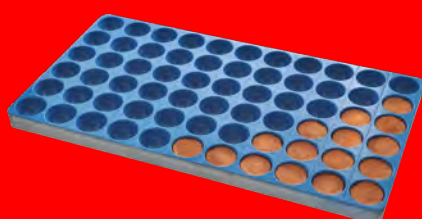
**Loaf pan with ridged containers**



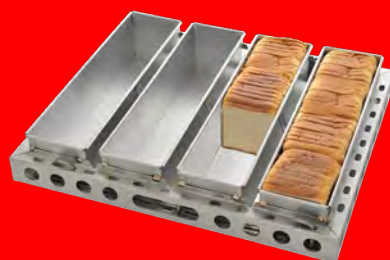
**Pan for croissants on a single aluminium tray or sheet**



**Flat sheet for high output machines**



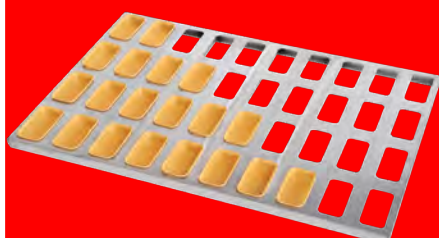
**Semi-spheric form with highly non-stick Teflon.**



**Slotted loaf pan with automatic cover lock**



**Sheet for hamburgers for up to 125mm in diameter**



**Tray with self-carrying paper cup holders**



**Pan for muffins with a large selection of shapes and diameters**



**Stackable pan for panbauletto**



# ALL THE LATEST FROM SACMI PACKAGING & CHOCOLATE AT PROSWEETS 2022

Taking center-stage will be a new solution for the production of semi-finished chocolate drops, completing the SACMI technology range for chocolate-making and moulding. Also on show will be the latest top-of-the-range flowpack (JT-ADVANCE) and wrapping (HY7) solutions

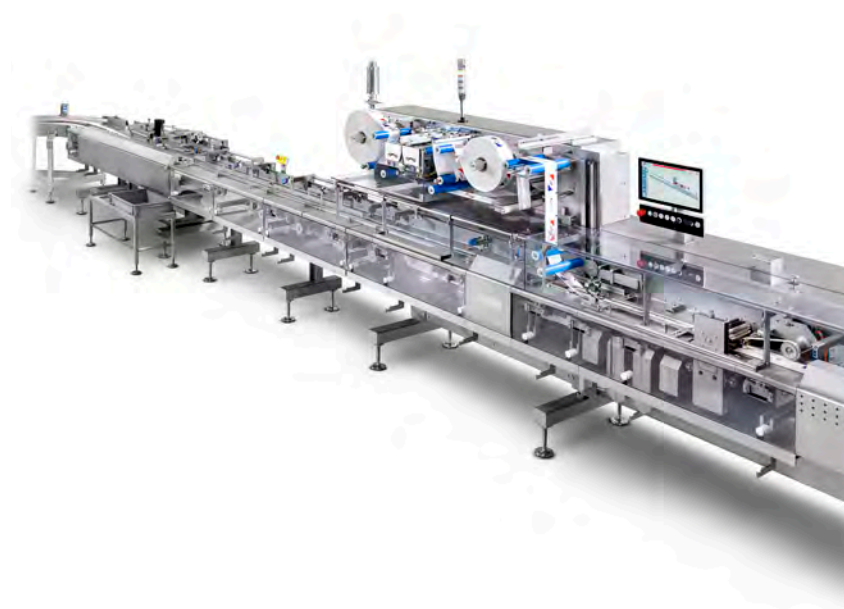
**S**ACMI Packaging & Chocolate is set to take part in Prosweets 2022, the international confectionary and snack technology fair being held in the city of Cologne, Germany, from 30 January to 2 February.

## The new chocolate drop dosing/cooling system

Taking pride of place on the SACMI stand (hall 10.1, F050-G059) will be the latest solution for the manufacture of semi-finished chocolate-based drops, chips, sticks and chunks.

Completing the Carle&Montanari brand's range of chocolate production and moulding technologies, this system is aimed at companies that produce and market this semi-finished product, used by the bakery industry to produce cakes, biscuits and other products or as an 'easy melt' item, supplied directly to patisseries or final consumers.

The system consists of an MLRG 1500 rotary dosing machine and a cooling tunnel. The depositor features a spot-dosing system that emits individual drops onto polyurethane or steel belts depending on the specific application. What's more,



the solution offers outstandingly fast and user-friendly format changeovers; this is largely thanks to continuous operation and the special pre-cut devices in the cooling tunnel that can, for example, make sticks and chunks.

High performance – with processing rates of 1000 - 3000 kg per hour – is a key hallmark of the machine, which is 1500 mm wide and has variable cooling tunnel lengths to meet specific productivity requirements.

**JT-ADVANCE, high speeds, fast changeovers, low maintenance costs**

Alongside this solution, SACMI Packaging & Chocolate will display the JT-ADVANCE, a next-gen OPM-branded flow-wrapping machine that offers high speeds, low running costs and reduced format changeover times.

Highly configurable to meet the customer's every need, JT-ADVANCE is specifically designed to package products like chocolate and cereal bars, snacks and pralines, which require high productivity (up to 150 meters of film per minute). The solution also offers users the advantage of simplified maintenance thanks to easy access to the



machine (all the operator's tasks can be performed from the front) and the extremely short changeover times, made possible by tool-free, fast release-and-lock adjustment mechanisms. Reel replacement tasks can also be carried out during production, without reducing machine speed.

Hygienic design is a key market requirement, hence its prioritization at the design stage. This has led to specific measures such as minimization of crumb deposit points and guards equipped with supports to allow easy residue removal.

### **HY7, the first 'hybrid' technology wrapping solution**

The new HY7 wrapping machine completes the range showcased by SACMI Packaging & Chocolate at the German fair. A multi-style (Top, side & double twist, bunch, envelope, wallet) flat-base praline wrapping machine - marketed under the Carle&Montanari brand name - it takes the long tradition of supplying unmatched wrapping solutions into the future.

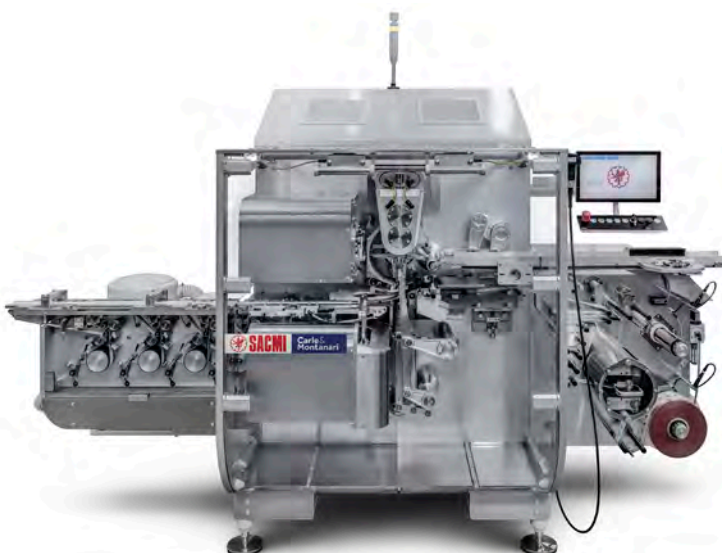
The HY7 is, in fact, the very first 'hybrid' technology wrapping machine on the market. Design and operation are based not only on traditional mechanical transmission but also on high-performance, energy-efficient servo drives; moreover, the various machine units have 40% fewer components than previous models. Extremely user-friendly, the HY7 can achieve output rates of 700 pieces per minute and is designed to handle even the most delicate or irregularly shaped products with the utmost

efficiency. Large, transparent guards maximize visibility, ensuring any problems (e.g. presence of scrap or dirt) are noticed immediately. Access to vital wrapping machine parts is made easy by the cantilevered structure, which characterizes the overall machine concept.

Extremely linear design and a greatly simplified drive train have resulted in few movements and few spare parts, simplified maintenance, lower Total Cost of Ownership compared to alternative solutions and greater reliability thanks to the solidity of all moving parts.

Designed around the concept of modularity, the machine consists of a standard base on which a project-specific perforated aluminum plate is mounted. The latter houses a series of interchangeable cantilever units (or 'modules'). This configuration means customers can implement upgrades over time. For example, they can add new wrapping styles without having to replace the machine.

The machine implements advanced predictive maintenance systems and, thanks to its outstanding adaptability, is designed to aid transition towards utilization of a new generation of eco-sustainable wrapping materials.



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# PROFESSIONAL BAKING SOLUTIONS

for Bakeries, Confectioneries, Biscuits Manufacturers,  
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**F**or more than 30 years, EUROPA Srl has been selling professional ovens to an ever-larger number of bakeries, hotels, pastry and pizza shops all over the world. Established in 1990, EUROPA has become a brand synonymous with “reliability” and “innovation”, specialized in the production of ovens and equipment for bread, pastry and pizza, to facilitate bakers’ lives ever more.

The strong entrepreneurship of the company’s management, the long experience of a dynamic team of qualified technicians and the professional competence of a closely-knit workgroup always ready to foresee

the real market requirements, permitted to grow up rapidly and establish itself over the main international markets.

Experimentation and research have always represented the principal means to achieve the company’s primary objective: “anticipate and satisfy the customer requirements”. Moreover, the testing severity, as well

as the close examination of the materials, guarantee the high quality of the products.

Over the years, EUROPA has consolidated world-wide its own position, thanks to a constant renewal of its range with increasingly more advanced products. It continues to grow year by year, consolidating its presence both in Italy and abroad, re-





lying on a strong mark, which means quality and modernity.

Besides, thanks to the cooperation of a loyal and specialized distributors' network, EUROPA is able to guarantee an excellent assistance service to all its customers, whether it is a small pastry shop, a traditional artisan bakery or a bakery industry with loading and unloading automatic systems.

EUROPA offers two main product lines, in which you can find the most suitable oven according to your own needs. Besides, every product line has its own accessories.

The BLACK LINE presents a wide range of solutions for large and regular production, including: electric deck ovens, steam tube deck ovens, both traditional and evolved rotary rack ovens, multi-loading deck ovens and provers. It features two models of rotary rack oven: the traditional GALILEO, with rear heat exchanger, and the evolved JOBS, with side heat exchanger.

Furthermore, both series have two different versions, the DIGIT and the PRO ones, to satisfy all customers' requirements. Among its many characteristics, the standard DIGIT version comes with digital control panel, 2-speed baking fan, weekly programmable ignition system, motorized steam damper and stainless-steel outer panels.

The PRO version, instead, has the electromechanical control panel, manual steam damper and 1-speed baking fan. However, regardless their differences, GALILEO and JOBS have several common qualities, such as: solid structure, refined design, improved technology and surprising recovery times.

The GREEN LINE presents multiple products for small production, regular production, bakery cafés and horeca. It includes electric modular deck ovens, compact rotary rack ovens, mini-rotary rack ovens, convection ovens, combined solutions and provers. Among the products of the

new GREEB LINE series, the main ones are those composing the BELL and COOPER series: ultra-compact rotary rack ovens for bakery and pastry products.

Thanks to their modular structure, they can be installed in less than 2 hours; besides, they can pass through common doors and they can be fitted into premises with very low ceilings. The special "FREESTYLE" version (patented) allows to reduce the consumptions from 33% to 66% when the baking of a complete rack is not needed: that is to say, that you can decide whether to bake 5, 10 or 15 trays and thus to use 1/3, 2/3 or 3/3 of the power. Stainless steel massive structure, modern design, excellent baking quality, versatility and friendly use: these are the features that make the BELL and COOPER series suitable for all customers expecting great performances from a small oven. 🏠

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# ACMA AT PROSWEETS

## FLEXIBILITY AND SUSTAINABILITY TO ANSWER TO THE REQUESTS OF THE CONFECTIONERY MARKET

**A**CMA, a Coesia company, will take part in the 2022 edition of ProSweets strong of a unique know-how in the world, which has its roots in the 1920s. The common thread of innovation has never stopped and has led the company to cross the decades by presenting cutting-edge solutions that, today as yesterday, characterize it as an expert partner to meet the needs of the Confectionery market. The challenges of the sector are in fact innumerable, with a demand for ever new styles and a renewed attention to sustainability.

### A solid and fast-growing market

Confectionery is a thriving market that expresses an average growth rate of 3.8% in the period between 2020 and 2025, the year in which it is expected to reach almost 2.000 billion dollars in value compared to 1.700 in 2019 (source: Market Study Report). The sector was able to respond effectively to the challenges of the pandemic which did not particularly impact sales, but contributed to slightly change purchasing trends, with a recovery of multi-pack packages compared to single formats, dictated by the

greater economic convenience of the former. The pandemic has also led to a boom in online shopping.

Confectionery today is a market caring for issues that revolve around sustainability.

The younger part of consumers is very sensitive to this issue and pushes companies to rethink their products in this direction.

Sustainability is understood not only as a low impact of the supply chain on the ecosystem, but also







CW 600

from an ethical point of view: more and more consumers are showing interest in issues such as the origin and production conditions of raw materials.

#### **ACMA's response to sustainability**

The world trend is towards the reduction of plastic or multilayer-based materials, which today are widely used in the packaging sector.

Currently, plastic-based packaging represents 80% of all bar products sold globally, while those packaged in paper, which are more recyclable and sustainable, account for only 16%. ACMA is making extensive

efforts to give an effective answer to this question, carrying out numerous tests, in partnership with some of the most important brands in the sector, to verify the behavior of sustainable materials for both flowpack and wrapping, used in the sector.

These tests are carried out in a dedicated research laboratory and see the use of the most innovative materials from the point of view of sustainability, including those based on paper.

The challenge is to overcome the structural limits of these materials which can be damaged during wrapping, for example during

the closing phase of the "double staple" format. The final purpose is to keep the quality of the wrapping, a real trademark of ACMA, high, giving the customer the opportunity to use solutions with a reduced environmental impact and ensuring the high performance of the installed machinery.

#### **Offer an experience: the case of Ecoshell**

In the Confectionery field, on the one hand the packages must have characteristics in terms of practicality (they must be easy to open and - in the case, for example, of products such as chewing gum - reclose, they must guarantee a high shelf



CW 800



life, adequate qualities robustness and offer an easy product dosing system) and on the other hand, they must help the company to convey messages and, in general, the brand image, taking into consideration that the style in the Confectionery sector is typically imaginative and colorful .

The answer given by ACMA to these needs, in addition to the Flip Top and Zip Top packages, is called "Ecoshell": a paper-based package, characterized by an innovative design that allows, through an aesthetically refined and patented solution, to enjoy an optimal dosage of the product and great ease of use.

The new technology developed by ACMA for the production of the package makes it possible to efficiently obtain shapes that are not commonly feasible, guaranteeing



OptiMate



originality in appearance and great flexibility, thus allowing the customer ample possibilities in terms of customization. Ecoshell is in fact scalable in size and proportions, it adapts to different commercial purposes, depending on the type of product to be packaged.

#### **TECHNOLOGIES EXPOSED AT PROSWEETS:**

##### **Multi-style for quality wrapping: CW 600 F**

CW 600 F will be one of the machines on display in Cologne: it is a unit with alternating movements for the multi-style packaging of products



such as chocolates and flat-base candies, designed to meet the specific needs of those markets that require solutions up to 600 strokes per minute, characterized by high flexibility, wrapping quality and ease of use.

The machine can produce shapes such as double twist, boero, twist on side, bunch, wallet and wallet with strap, allowing to carry out an independent unwinding of the reels and ensuring perfect packaging even in the case of products with internal and external wrapping of different sizes. ACMA is also working on the implementation of other wrapping styles, including the "envelope" and the "protected double twist", a more protected version of the homonymous format. The compact layout also allows it to integrate perfectly within



diversified production environments, while the cantilevered construction and the use of brushless motors simplify management, maintenance and cleaning activities. The offer is completed by the possibility of working with all the main wrapping materials.

##### **An even more developed human-machine interface: Optimate**

ACMA will present at Prosweets the Optimate operator panel (Web HMI) in the "premium" version, installed on its CW 800 (one of the machines exhibited at the fair, together with CW 600 F). In this new version, Optimate differs from the "basic version" for different factors, among

which advanced methods in terms of preventive maintenance of the machine and format change are highlighted. The latter takes place in a guided manner, in order to be as fast as possible and reduce the downtime of the line. The basic characteristics remain unchanged, making Optimate intuitive and user friendly in all operations, from the daily operation of the machine to maintenance operations. Finally, Optimate allows a real-time intervention (Advanced Remote Assistance) by the ACMA team of experts to perform diagnostics and quick troubleshooting.. 🏛️

**[www.acma.it](http://www.acma.it)**



# LEVEL REGULATION WITHOUT BLEMISH

## SMART LEVEL SENSORS IN CHOCOLATE PARADISE

**C**apacitive sensors are a fine thing in and of themselves: They can detect levels of liquids, powders and granular materials through non-metallic container walls without the sensor coming into contact with the media. However, conventional capacitive sensors also have a number of disadvantages. The sensitivity of the sensor must be adjusted in a time-consuming process so that the signal is triggered not by the container itself, but by the container wall together with the medium. And if you ever try to accurately detect the level of chocolate, ketchup, etc. using a conventional capacitive sensor, you will discover that these media do not drain without leaving residue, and deposits regularly lead to sensing errors, which make error-free measurement impossible.

This challenge was faced also by Gysi, the renowned chocolate manufacturer in Switzerland, when seeking to equip the agitators of various tempering machines for heat treatment of chocolate when retrofitting new sensors for level regulation. The previous level detection system based on measuring the pressure difference was getting up in years and repeatedly had to be checked and cleaned at regular intervals, which incurred considerable effort and downtime. Therefore Gysi looked for a new solution.

First attempts with a built-in sensor from the machine manufacturer, however, did not look promising because the ap-



plication could not be left unattended. Then a Balluff sensor with smart level technology was chosen finding an error free solution.

Smart level sensors operate at an oscillator frequency significantly higher than conventional capacitive sensors. In addition, the patented electronic processor unit gathers more information than is usually the case with capacitive level measurement. It evaluates not only the capacitance, but also the conductivity value of the medium. Since compact media have high, thin films of the same medium, but only low conductivity values, the new sensors have no trouble distinguishing between thin deposits and the real level. This means that sensing errors with media that do not drain without leaving residue, such as chocolate,

are largely prevented. Gysi now has 6 machines retrofitted with the new sensors and there are already plans to retrofit additional systems. The sensor in the container wall detects the level of the chocolate directly through the end face of the plastic sleeve in the container wall. If the chocolate falls below a certain fill level, the sensor triggers and after 30 seconds liquid chocolate is refilled until the optimum fill level is reached.

Unlike conventional capacitive sensors, these fill-level indicators do not have to be readjusted, neither during operation, nor when changing the recipe. Thus the switch point between white and dark chocolate, for example, differs by only three millimeters. 🏠

[www.balluff.com](http://www.balluff.com)





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# THE CONFECTIONERY SECTOR IN THE ERA OF HEALTHY FOOD

**I**n the confectionery market, as in the large-scale retail, the search for healthy products seems to be an unstoppable trend: the modern consumer, stimulated by the emergence of new styles of consumption, is increasingly looking for natural, organic and free from products.

New purchasing habits that, on one side, depend on the greater attention to eating disorders (in industrialized countries, gluten intolerance has grown by more than 20% in the last 5 years), but also on the perception the

consumer have about these products understood as “healthier”.

Here then, the clean label becomes the lever that drives the purchase decision: the absence of dyes, preservatives or allergens is one of the most appreciated characteristics.

The combination of food and well-being pushes the consumer to prefer products of certain and/or certified origin, so doing products “without”, organic, IGP, Zero miles and local, are increasingly gaining space.

A search for naturalness that affect the confectionery sector, which records growth rates before pandemic up to +8% per year, of which over 40% comes from bakery products, followed by chocolate and cocoa products (over 30% approximately), ice cream (15%) and confectionery.

In this new, highly specialized market segment, it becomes essential for success, to know how to renew its own production and anticipate consumer trends, which are increasingly demanding in terms of naturalness and ethics.





Understanding the taste of the modern consumer means giving priority to natural ingredients without additives, dyes or preservatives in favour of quality. Cesarin studies new methodologies to preserve the authenticity of fruit and vegetable flavors for the sweet and savory industry.



In this context, Cesarin S.p.A, an Italian company of semi-finished fruit and vegetable products, that has made innovation its competitive advantage, stands out.

With over 100 years of experience in the processing of **candied fruit**, **Cesarin** has been able to anticipate market trends to propose high-quality solutions that guarantee the maximum attention in the search for raw materials from certified origin and the absence of artificial flavours, dyes and preservatives.

**An example of this is the line of Fruit HG with low water activity:** it is a product studied in the Company Research Development Centre, that inhibits the activity of water and keeps unaltered the taste and structural characteristics of the raw material, with a softness and a fresh flavour not comparable to a traditional dehydrated or freeze dry product.

Created as an inclusion for chocolate bars, today it finds its best use in the production of biscuits, energy

bars and cereal mixes. The product is naturally gluten-free, contains no artificial colours and is OGM free.

**Fruit HG Cesarin** is also available in the Light version without added sugars (sweetened with maltitol) in the flavours most requested by the international market: from classic red and yellow fruits, to the more exotic flavours of mango, pineapple and papaya and the highly appreciated lime and ginger, or in the version with Sorbitol for excellent resistance to high temperatures and

soft texture after baking. Following the trend of freshness, naturalness and low sugar added, Cesarin offers as an alternative to the traditional candied fruit, the Semi-candied fruit TuttaFrutta, obtained by a cold process from the best fresh fruit on the market, ideal to garnish and fill baked products or ice cream.

But in **Cesarin** the focus is not exclusively on the sweet pastry side. Over the years, the company has established itself on the international market also for the search for a line of vegetables dedicated to the food industry.

An example of this is the **Vegetables HG with low water activity** that represent the perfect solution to all the problems associated with the use of dehydrated or frozen vegetables: stabilization in fact allows the preservation of vegetables through the partial inhibition of the water activity naturally present in the fresh raw material.

This process guarantees a better organoleptic appearance and a less fibrous structure than dehydrated products and a higher resistance to mechanical stress as well as less water release than frozen products.

The stabilized vegetables are obtained from vegetables harvested strictly by hand at the right degree of ripeness, to ensure the high-quality standard. Stabilized vegetables can be used as a topping to improve the aesthetic appearance or as an ingredient in sandwiches, ready meals, quiches, crackers, breads and rice/pasta salads.

Talking about sugar-free foods, Cesarin launches the **MisterAlberto line - Without Sugar Added** on the occasion of the company's 100th anniversary, to celebrate the company's founder.

The **MisterAlberto** line includes fruit jams and ice cream ripples with over 50% less sugar than the







average standard products, designed to enhance some of the best Made in Italy products. In this case the choice falls on the natural sweetness of the raw material and on the nutritional properties of the fruit.

In addition to the MisterAlberto line, Cesarin is famous for the quality of the jams produced, all bake stable, and the various fruit preparations aimed at the food industry.

Many innovations and many alternative products that do not forget the fundamental relationship with the territory of origin: Cesarin is very attentive to its environmental impact.

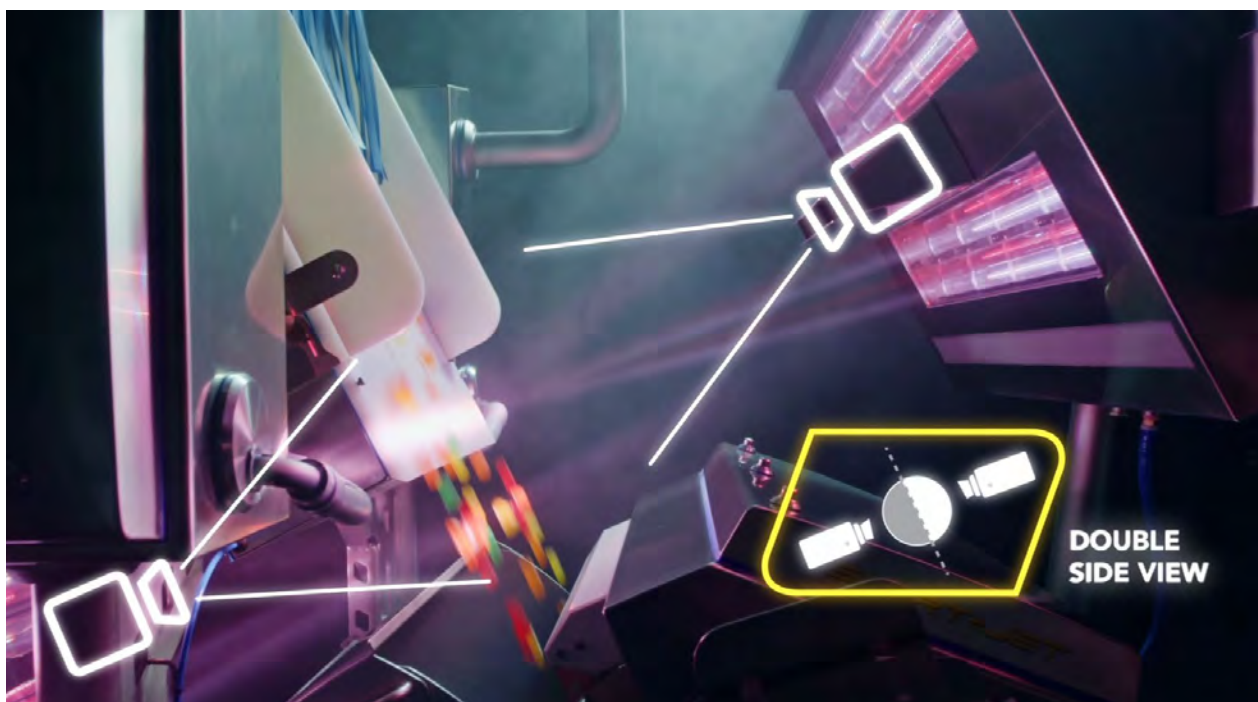
This is demonstrated by the strict controls to which the Company is periodically subjected as the environmental management system (EMS) conforming to ISO 14001:2004, those to the progressive reduction of resources used, the continuous improvement of its infrastructure in terms of environmental impact, through the search for effective and increasingly efficient solutions. 🏠

**For more information:**  
**Cesarin S.p.A Verona (Italy)**  
**[www.cesarin.it](http://www.cesarin.it)**



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 dal 1920

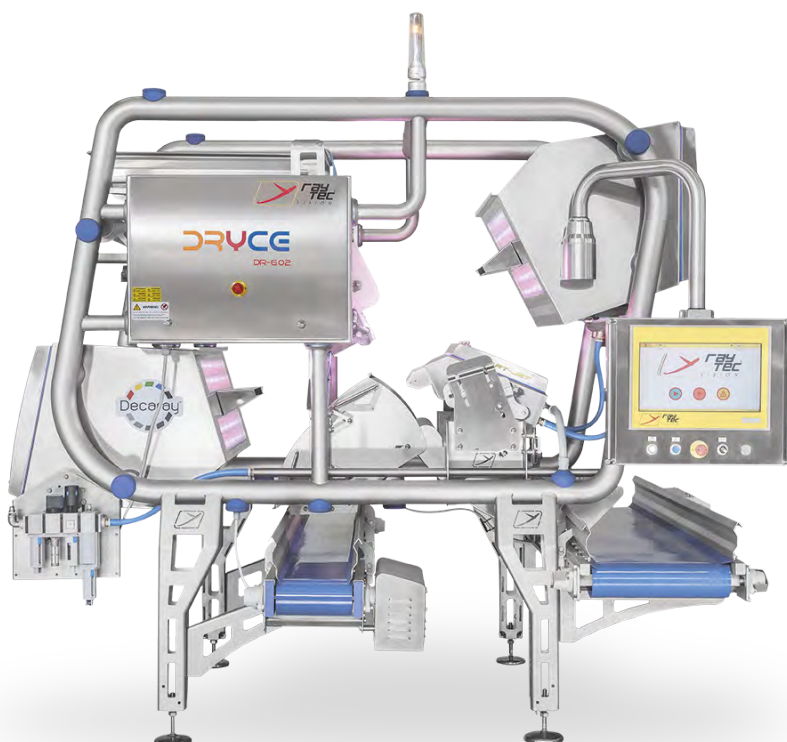
# RAYTEC VISION PRESENTS DRYCE: THE ULTIMATE SORTING TECHNOLOGY FOR CANDIES AND GUMMIES



**O**n the occasion of Prosweets 2022, Raytec Vision presents Dryce, an innovative optical sorting machine designed to accurately check oil-coated as well as sugar-coated candies with a production capacity up to 5 t/h.

Dryce can reject all defects such as shape imperfections, starch, burnt candies, conglomerates and remove any kind of foreign bodies (i.e. wood, molds, cross-contamination, etc...) in an extremely accurate way thanks to a 12 frequencies LED lighting system unique in the market.

This innovative feature allows discriminating between good and bad products based on the product's properties: light reflection, light transmission, and fluorescence provide detailed informa-





tion about the inspected items. The double-side view with 4 high-resolution cameras, together with the 3-Way reject system, and the Smart-Jet rejection system enable Raytec to provide a tailor-made sorting solution to each customer, ensuring the highest standards of accuracy and safety.

The machine stands out also for its innovative ultra-clean design complying with EHEDG standards, which guarantee full and deep sanitation even in totally dry environments as the confectionery production lines. Last but not least, it is particularly easy to use thanks to the new software UNYCO all-in-one, enabling the customer to monitor and trace the whole sorting activity, modifying the recipe at any time to reach the best ratio between yield and quality results.

Dryce was born in 2017 for the world of dry and frozen food but immediately

gave excellent selection results for other sectors, such as preserved fruit. The application on candies was born from the demand coming from major worldwide confectionery players, who immediately validated our technology on their lines.

Another interesting application is chewing gums. Dryce can identify any defect in shape, color, and texture with a maximum capacity of 4 t/h.

Dryce is available in two versions, the model DR-602 has a 600mm vision width and 96 ejection valves, whereas the DR-1202 has a 1200mm vision width and 192 ejection valves.

Investing in an optical sorter can bring many benefits to a company.

Firstly, it means adapting to the high-quality standards that the market requires. The manual sorting often does

not guarantee 100% accuracy, often the human eye does not perceive the defect, the staff is distracted, or is unable to process large quantities of product.

The machine, on the other hand, can analyze 100% of the product thanks to the cameras assisted by LED illuminators and can also identify the most hidden defect, and last all-time around! Furthermore, all Raytec optical sorters are networked and can also be assisted remotely by the customer care department, although the company can also count on a worldwide network of technicians. 🏢

[www.raytecvision.com](http://www.raytecvision.com)



# FUNCTIONAL WHEAT STARCHES REPLACE TITANIUM DIOXIDE

## Alternatives from Loryma score with comparable brightening and functionality

**A**s EFSA no longer considers the white pigment titanium dioxide (E 171) to be safe, it won't be allowed to be used in foods from 2022 onwards, according to EU regulations.<sup>1,2</sup> Loryma's ingredient portfolio includes two wheat starches that can be used to replace this soon to be banned additive.

The native small-grain starch, Lory® Starch Iris, optimizes the appearance of dry or cold applications, whereas the resistant wheat starch, Lory® Starch Elara, is suitable for applications that contain water and are heated.

With a whiteness of approximately 98 on a scale of 0 (black) to 100 (white), both the small-grain starch and the resistant starch can be used to replace titanium dioxide in foods. On the ingredient list, both variants need only be declared as "wheat starch" and "modified wheat starch," respectively.

Which alternative from the Loryma portfolio is the right one depends on the type and nature of the application.

### Small grain starch

Lory® Starch Iris is a native wheat starch with small, uniform particles (<10 µm). Owing to their size, they can attach homogeneously to surfaces and thus produce an even lightening effect in coatings. The starch swells



on heating and is therefore suitable for lightening dry or cold applications such as sweets (chocolate lentils, chewing gum).

### Resistant starch

Lory® Starch Elara is a resistant wheat starch. It doesn't thicken in an aqueous environment or with heat. The resistant and crystalline particles produce a lightening effect in foods that contain water and are heated, such as convenience products like dressings, desserts or puddings. Norbert Klein, Head of Product Development at Loryma,

says: "The topic of titanium dioxide substitutes has been occupying food manufacturers from all sectors since EFSA published its assessment in the summer. Manufacturers now have until mid-2022 to change their recipes and processes.

We stand by our customers, not only with functional products, but also with advice and support to implement a visually perfect end product that complies with regulatory requirements." 

[www.loryma.de/en/](http://www.loryma.de/en/)

<sup>1</sup> Press Release EFSA (European Food Safety Authority), published on 6 May 2021, available online: <https://www.efsa.europa.eu/en/news/titanium-dioxide-e171-no-longer-considered-safe-when-used-food-additive> (latest access 9 December 2021).

<sup>2</sup> Press Corner European Commission, 8 October 2021, available online: [https://ec.europa.eu/commission/presscorner/detail/en/mex\\_21\\_5165](https://ec.europa.eu/commission/presscorner/detail/en/mex_21_5165) (latest access 9 December 2021).



# INTER SICOP 2022 CONFIRMS IT WILL BE HELD IN FEBRUARY

The Organising Committee has confirmed that the Exhibition will be held on the scheduled dates (19–22 February)

IFEMA MADRID and the InterSICOP Organising Committee have confirmed that the Exhibition will be held from 19–22 February 2022, with good prospects for participation. This will be the first event on the international radar to bring together the baking, confectionery, ice cream, coffee and associated equipment industries. It is precisely this continuity in ensuring that the event takes place which represents a significant show

**IFEMA MADRID reinforces health controls and adequate measures to ensure that the fair can be held safely at the exposition centre**

of support for these sectors, as well as their reactivation and recovery to pre-pandemic activity and business levels, sentiments which

were mirrored by the Organising Committee this morning. Moreover, IFEMA MADRID has confirmed its support in strengthening health



controls and adequate measures to ensure that the fair can be held safely at the exposition centre.

InterSICOP has already filled 85% of the exposition space, which goes to show the confidence this sector has in the event – a great in-person exhibition for professionals in the baking, confectionery, ice cream, coffee industries.

As a benchmark fair in the Ibero-American sector, the Buyers Programme has been strengthened in these countries, in addition to other actions to favour exports and guarantee good international positioning.

This year, InterSICOP 2022 will serve as the backdrop for several important national competitions and workshops, namely: the Best Master Artisan Pastry Chef in Spain (MMAPE '22); the 4th Annual Ice Cream Championship in Spain; the 3rd Annual National Championship for Confectionery Students and the 4th Annual Championship for Artisan Baked Goods. There will also be workshops held by Grandmasters in the areas of Pastries and Ice Cream, and by Foro Mujeres Panaderas (Women Bakers' Forum), rounding out a full programme of events.

### Rigorous safety protocol

In order to make sure that InterSICOP can be held as usual, IFEMA MADRID will reinforce health controls and ensure adequate safety measures are observed. Therefore, in order to access the fair, attendees will be required to show a EU Digital COVID Certificate, a Spain Travel Health QR code, a vaccination certificate, or a negative PCR or antigen test performed within 24 hours.


In line with all fairs held in the past six months, a rigorous protocol of measures and systems will be implemented to ensure the safety of all exhibitors and visitors, which will be validated by the Ministry of Health

for the Community of Madrid. To that end, the capacity of the hall will be controlled using automated systems to count attendees, in addition to an intelligent digital system that analyses spaces, capacities and the behaviour of attendees, thereby strictly controlling crowds at all times. The use of a facemask will also be mandatory inside IFEMA MADRID facilities, and temperature checks will be used.

In addition to these measures, IFEMA MADRID facilities also have an advanced and powerful climate control system that prevents air recirculation, filtering the air and replacing it every 20 minutes, thereby helping to prevent the spread of pathogens. These measures are further enhanced by arranging the movement of people and the distribution of spaces to ensure that a safe distance is maintained between attendees, as well as by providing hand disinfectant gel and other disinfectants throughout the

premises, and using digital passes to avoid physical contact.

### Professional registration is open

Professionals can now register and obtain their credentials so as not to miss an edition that promises to be a great reunion of professionals within the sector. This gathering will serve as a place where they can discover new products and suppliers for their business, learn about different subjects related to their profession from great teachers and experts (preparations, techniques, new developments), share impressions and experiences with colleagues in the sector, and closely follow the ambitious championships on display. Attendees will also be able to use their professional credential to access LIVEConnect, a content and networking platform launched in 2020. This innovative platform has all of the features needed to enhance the value proposition, usefulness and business experience for participants before, during and after they attend InterSICOP. 





**New venue –  
New opportunities**

# BevialeMoscow2022

Trade fair for beverage production.  
Beer | Juices | Water | Wine | Spirits | Dairy  
VDNH, Moscow, Russia | 29-31 March



beviale-moscow.com

**Optimizing beverage production.**

**Innovating business opportunities.**

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## **Beviale Moscow 2022** #strongertogether

More than ever, it is important to stick together and stay in touch. Reconnecting with business partners, meeting the key players and benefitting from the outcome of a personal conversation.

Even in difficult times, Beviale Moscow gives you an opportunity to meet representatives from Russian beverage industry, to learn their needs and to present your own products. The encouragement from the Russian beverage industry over the last two years has been unbroken. Especially the current period shows that Beviale Moscow is the central contact point for producers on the one hand and the gateway to the Russian market for international suppliers on the other.

Use your chance and enhance your business in Russia!

### **Enquiries/Learn more:**

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**NÜRNBERG MESSE**

# BEVIALE FAMILY: INTERNATIONAL EXPERTISE IN THE BEVERAGE INDUSTRY

It's that time again, and Beviale Moscow is getting ready to launch. Russia's first trade fair to cover the entire beverage production chain will take place from 29 to 31 March 2022 in Pavilion 57 at the VDNH Exhibition Centre in Moscow. The organisers have made use of the period since the pandemic-induced special edition of Beviale Moscow in 2021 to fine-tune the concept. To reinforce the integrated approach, there will be a stronger focus on wine and liquid dairy products in 2022. However, beer, soft drinks and beverage packaging will also continue to be key components.

"After the successful event in 2021, which had been adapted to suit the circumstances, and based on current feedback from the market, I am confident that we can get back onto our previous growth trajectory with Beviale Moscow," says project manager Thimo Holst, looking optimistically to spring 2022. More than 50 percent of the exhibition space has already been sold.

The VDNH exhibition complex is one of the most popular public spaces in Moscow. Thanks to its location in the historic part of the city, proximity to the city centre and attractive

infrastructure, it also offers the ideal conditions for Beviale Moscow 2022, especially as it will take place in Pavilion 57, which was renovated and modernised in 2015. The organisers took the responsible decision to move the venue again in good time after it became apparent that the City of Moscow might continue to use the Sokolniki venue for a while.

"To retain the necessary control over the entire organisation and create planning certainty for us and our customers, we have made what is in my view the best choice for a successful event," says project manager







Thimo Holst about the change of location. "The VDNH venue meets all the criteria for a successful trade fair. Pavilion 57 allows us to substantially increase the exhibition space, the number of exhibitors, and the comfort of the conference area." More than half of the exhibition space has already been booked, among others by KHS, Pentair and Fermentis.

#### **Spotlight on winemaking and dairy products**

Since July 2020, the Russian wine market has been governed by a new law, whose provisions also include stricter regulation of grape cultivation and the processing, organisation and distribution of Russian wine.

The intention is to promote high-quality winemaking within the Russian Federation. The result of this law is that there has been an enormous increase in demand for products across the winemaking process chain. Beviale Moscow 2022 is responding to this demand by presenting the new EnoloTec Special Show "Winemaking in Russia". The topic of wine will also be covered in various

tastings, seminars and workshops. In Russia, milk production and processing are key issues for the beverage industry and will therefore also be covered in the coming round of Beviale Moscow, for example through the special show Dairy Trends. The conference programme will also feature presentations and discussion panels on the topic of liquid dairy products.

#### **High-quality supporting programme: soft drinks, beverage packaging, Craft Drinks Corner**

Other items on the agenda, some of which will be familiar from previous years, will also be included at Beviale Moscow 2022, e.g., the NCPack (National Packaging Confederation) conference on "Innovation in Beverage

Packaging", another conference devoted to soft drinks, and the Craft Drinks Corner with tastings and seminars. For the third time now, Bavarian companies will have the opportunity to present themselves to Russian trade visitors as part of the Bavarian Pavilion.

To underpin and promote the strong economic ties between Bavaria and Russia, Beviale Moscow started a collaboration with Bayern International in 2019.

The Bavarian export promotion agency remains impressed by the concept and continues to give the event its unequivocal backing.

For more information, please go to: [www.beviale-moscow.com/en](http://www.beviale-moscow.com/en) 🏠

## **BevialeMoscow2022**

Trade fair for beverage production.

Beer | Juices | Water | Wine | Spirits | Dairy  
VDNH, Moscow, Russia | 29-31 March

# ANUTEC

## INTERNATIONAL FOODTEC INDIA AND CO- LOCATED EXHIBITIONS ARE RESTARTING THE BUSINESS FOR FOOD AND BEVERAGE TECHNOLOGY PROVIDERS

**T**he trade fair welcomed more than 6,000 buyers who interacted with over 260 exhibitors during its three days, reinforcing that the physical exhibitions are irreplaceable and that ANUTEC - International FoodTec India is “the platform” for the industry.

The largest and most comprehensive exhibition for the food and beverage technology finally took place after a hiatus of nearly two years caused by the pandemic. The 15th edition of ANUTEC - International FoodTec India, held from 2-4 December 2021 at IECC, Pragati Maidan, New Delhi, coincided with PackEx India and Food Logistics India. “The success of ANUTEC – International FoodTec India and PackEx India signals a turning point for the Indian food and beverage technology providers industry. We are pleased to have been able to deliver a physical exhibition of this magnitude and are immensely grateful for the overwhelming response,” said Milind Dixit, Managing Director of Koelnmesse YA Tradefair Pvt Ltd. The exhibition received 6,102 visitors from 13 countries and 268 exhibitors from 20 nations. As a result of the successful conclusion of the exhibition, the food and beverage business will take off, which has been eagerly anticipating new technologies and serving customised consumer demands.

Nishant Bansal - Managing Director, Noida Fabcon Machines Pvt Ltd said “ANUTEC India is a great show, now we are back and we are happy,

very well managed. We had good visitors from Haldiram, ITC, PepsiCo, who's who of the industry and it is good to be back here”.

“It is very nice to be back here in the industry, meet our customers' physically, show them our equipment and discuss with them their future projects” quoted Manoj Paul - Operations Head and Country Manager, Heat and Control.

“We are pretty happy to see that we are getting very relevant responses, the crowd is filtered and we are getting more precise and subjective response” said Tanuj Agrawal - Vice President, Domino Printer; and Sanjay Singhal - Chief Operating Officer, Dairy and Beverages, ITC Ltd said “It feels great to visit, look at the developments that have happened in the last two years, it's also nice to meet

industry people and friends. Certainly, we think that given the criticality of the food industry, it's a great place to be in ANUTEC India.

Several premium industry associations supported the event this year, including the All India Food Processors' Association (AIFPA), Indian Flexible Packaging and Folding Carton Manufacturers Association (IFCA), and Health Food and Dietary Supplements Association (HADSA). With industry support, the event reached new heights and attracted top buyers.

Under the umbrella of ANUTEC – International FoodTec India Knowledge Forum, a series of powerful side events were organised. “India Food Supply Chain Summit” was co-organised by Logistics Insider





and Food Logistics India. IFCA and PackEx India organised a seminar on “Packaging - Continuous Enabler for Creation of Value” followed by IFCA Star Awards, a National Seminar on “Technology Foresight to Modernise the Indian Food Industry for a Significant Global Role” was organised by AIFPA and Koelnmesse YA Tradefair Pvt Ltd. The event attracted who's who from the industry, senior representatives from the Government of India and influential buyers from the neighbouring countries.

The next ANUTEC - International FoodTec India, PackEx India, and Food Logistics India will be organised from 14-16 September 2022 in Bombay Exhibition Center, Mumbai. The event will be co-located with the flagship Annapoorna - ANUFOOD India.

Koelnmesse – industry trade fairs for the food technology sector: Koelnmesse is an international leader in organising trade fairs in the field of food and beverage processing.

Anuga FoodTec and ProSweets Cologne are established, world-leading trade fairs, hosted in Cologne/Germany. In addition to the events at its Cologne headquarters, Koelnmesse also stages further food technology trade fairs with different sector-specific areas of focus and content in key markets across the world, including India, Italy and Colombia.

These global activities enable Koelnmesse to offer its customers bespoke events and leading regional trade fairs in a variety of markets, thus creating the foundation for sustainable international business.

Koelnmesse is also ideally positioned in the field of food and beverages with its leading international trade fairs Anuga and ISM and its global network of satellite events. 🏢

Further information:

**[www.anugafoodtec.com/trade-fair/industry-trade-fairs](http://www.anugafoodtec.com/trade-fair/industry-trade-fairs)**



Online auction machinery for the food industry on behalf of Florin GmbH in Willich (DE)



Online auction machinery for the food industry in Boxel (NL)



Online auction poultry slaughter line in Den Ham (NL)



Online auction packaging line for tea bags on behalf of Colusso Industriedienstleistungen GmbH in Hameln (DE)



Online auction bakery machinery on behalf of Gaux fully-baked machinery solutions in Dornhan (DE)





# THE (RE)DISCOVERY OF HYGIENE, HEALTH AND SAFETY CONNECTION WITH **COLUSSI ERMES**

**T**he whole world has a new awareness: the connection between hygiene and health cannot just exist but must be visible. The pursue of hygiene has always been a goal of human nature as it entails - first of all - safety. With

a pandemic such as the one ongoing in the last year this connection has not only been renewed but also strengthened.

**How?** If we all are - unlike before - more aware of what hygiene and

cleanliness really mean, we have also understood that it is not enough to know that they exist. We also want to see them and feel them. Starting from here Colussi Ermes - the company specialized in food-industry washing systems - has seized the



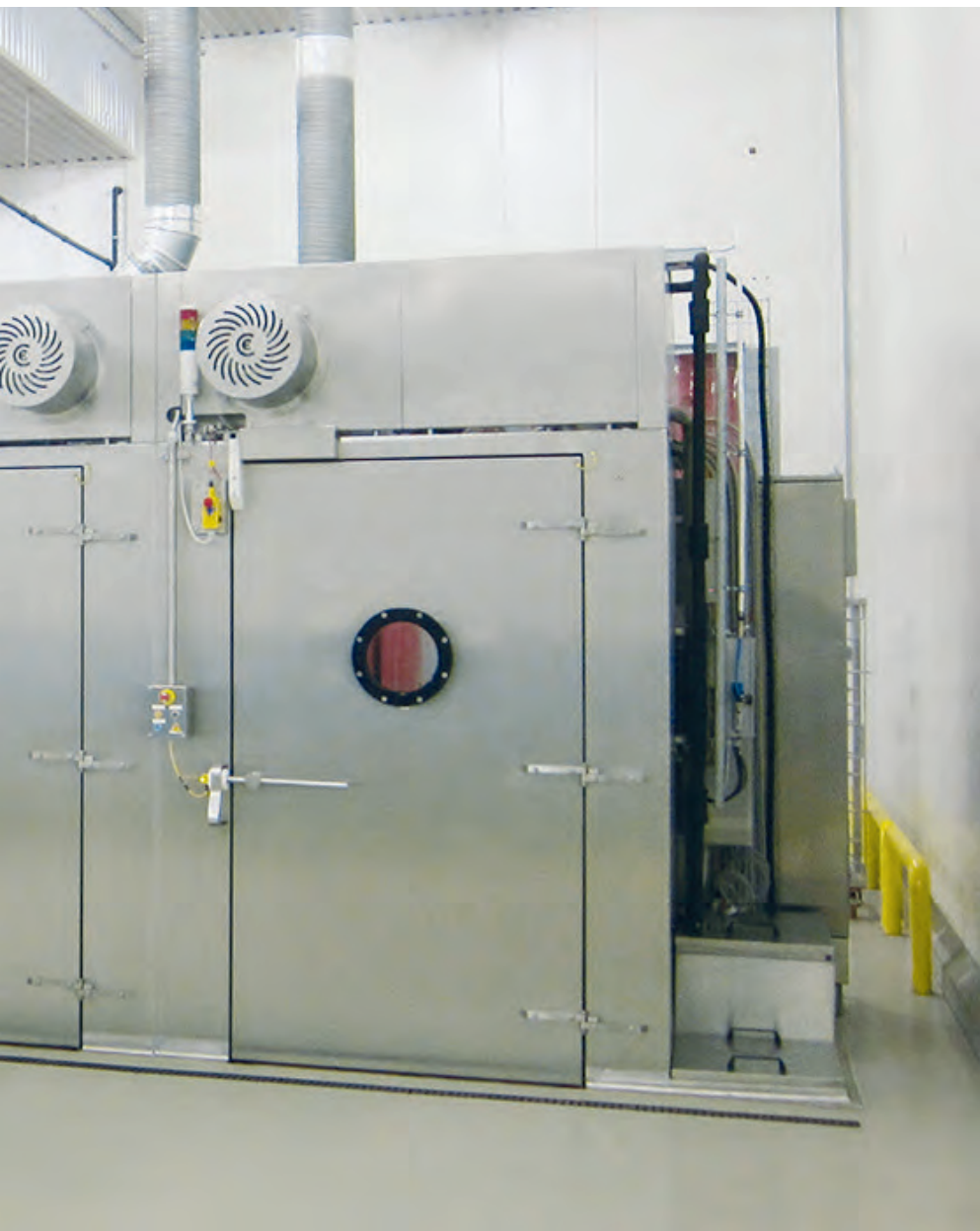
  
**Centrifugal  
System**  
COLUSSI ERMES





opportunity to renovate their mission, which has always aimed to pursue perfection in terms of hygiene and sanitization.

Colussi has done so trying to strengthen the concept of safety in



the food-industry world. During such intense years, in which food has been one of the main rediscoveries for people, many food-production companies have seen an increase in the work load along with a demand to comply with new strict standards. No one knows this better than Colussi Ermes who has met many new requests coming from its clients: ranging from the meat industry to the dairy industry, from the confectionary industry to fruit and vegetable production, from poultry industry to fish industry.

**The recurring question will remain the same also after the Covid surge: how can safety be increased during the food production and washing cycle?** With solutions capable not only of reducing cross-contamination risks to protect consumers but also capable of make this protection perceptible.

The different processes that aim to obtain perfect hygiene now more than ever, can and must get more attention.

This kind of care for every detail is what distinguishes Colussi Ermes. Machine design, energy consumption reduction, water and detergent use, cycle automation, loading/of-



flooding automation and the parameter monitoring in compliance with HACCP rules are just a few of the features that combined in a single washing system make the difference.

The CIP (Clean in Place) self-wash programs are an example of this. Their goal is to protect and depurate the production lines from organic and inorganic contaminating agents. Thanks to this automatic system – that involves all of the machine circuits, walls and key points and that is performed with pre-set pressure and temperature including also a final rinse and sanitization phase – companies can reach the high safety standards that are required.

**Colussi Ermes' challenge for 2022 becomes another opportunity to make the world a safer place.** Two new plants have been built comprising the new Colussi Research Centre site. This is an ac-

tual innovation space, a lab where experts can study new improved systems for industrial washing, sanitization and drying that guarantee energy savings and that aim to ensure higher performance and efficiency levels. The new sites, which are completely covered with solar panels, qualify Colussi Ermes as a model of sustainable excellence.

Colussi Ermes exports all over the world, extensively in many countries. Europe, North America and Australia are the main markets where are constantly reached the most important sales targets. Furthermore, with the aim of strengthening entry into the American market, Colussi Aws Inc. has been established in California, together with an all-American brand.

#### SAVING RESOURCES

Large and small companies working in the food market and using COLUS-

SI ERMES machines have been able to achieve extraordinary advantages such as:

- dramatic energy and chemical savings
- environmentally friendly wash operations
- reduced wash time vs. very high hygienic and sanitary standards
- increased production capacities and safety
- better working performance of their staff

Colussi Ermes is continuously innovating to improve your safety.

This is a company that marked its path with its resilience spirit which is fundamental in this memorable period. 🏠

**Visit:**  
**[www.colussiermes.com](http://www.colussiermes.com)**



# CHIARAMELLO SOLUTIONS FOR TRANSFERRING AND MIXING FLUIDS IN THE FOOD INDUSTRY

**C**HIARAMELLO INDUSTRIA builds food pumps the characteristics of the pumps do not emulsify they do not whisk the product ideal for delicate products.

We have 6 models of pumps, the smallest with an hourly flow rate of 700 liters, now the largest of 30000 liters / hour.

We also build food mixers for various types of products.

We have 3 basic models that are modified and built according to customer requests. 🏭

For more information visit the website [www.chiaramello.it](http://www.chiaramello.it)



*Chiaramello Industria s.r.l.*



# HIGH PERFORMING FACE STOCK PAPER DELIVERS CONVINCING RESULTS FOR MULTIPLE APPLICATIONS

Sappi expands its product portfolio of face stock papers with Parade Label SG from its Gratkorn site

**S**appi, manufacturer of numerous packaging and speciality papers for a wide range of markets, is launching the Parade Label SG, a one-side coated face stock label paper that excels in terms of properties such as printability, opacity and stiffness, as well as with its many options for further processing.

- Semi-gloss face stock paper with high-quality performance characteristics
- Suitable for a wide range of applications, e.g. labels for food, non-food, HABA and VIP
- Available in 77, 78 and 80 gsm
- Manufactured in Gratkorn, one of the largest and ultra-modern paper mills in Europe

**Parade**  
Label SG





Sappi offers an extensive range of base papers for wet-glue and self-adhesive labels. With its new Parade Label SG, the company is now introducing a one-side coated, semi-gloss face stock label paper that is approved for direct contact with food and that complies with DIN EN 71 for toy safety.

The range of applications includes labels for food, non-food, beverages and health and beauty aids (HABA), as well as for logistics and variable information printing (VIP) due to its excellent thermal transfer printability.

The fibre-based face stock solution guarantees high-quality results in printing and finishing, through the entire production and converting chain. It features high stiffness and resilience, so the label will not be damaged and will fit accurately even after labelling.

### **Sappi invests in customer proximity**

To ensure 100 percent availability and fast delivery of its label papers, Sappi has proactively positioned itself for the future and set the course for reliable production and seamless supply chains – with its plants in Alfeld, Carmignano and Condino. The plant in Gratkorn, where Sappi has invested in new technical equipment, has now been added to the list. With modern production facilities, from paper machines to finishing technology, as well as extensive expertise in the production of coated papers, the site has everything in place to ensure top-class products. Available capacity is being expanded gradually to include the production of Parade Label papers alongside existing graphical grades.

Because of the central location of Sappi's production site in Gratkorn,

Parade Label SG can be supplied quickly throughout Europe and beyond. The short transportation distances save greenhouse emissions and protect the environment; shorter production cycles then enable good availability and fast supply. Parade Label SG is certified for direct food contact and available in grammages of 77, 78 and 80 g/m<sup>2</sup>. Sappi can provide Parade Label SG with FSC or PEFC certificates on request.

Sappi will be presenting its new developments in the field of label papers, among others, at the upcoming LabelExpo Europe in Brussels in April 2022. 🏛️

[www.sappi.com](http://www.sappi.com)

**sappi**



International  
supplier fair for the  
food and beverage industry

[www.anugafoodtec.com](http://www.anugafoodtec.com)

COLOGNE, GERMANY  
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[anugafoodtec@visitor.koelnmesse.de](mailto:anugafoodtec@visitor.koelnmesse.de)



 **koelnmesse**

# SATINOX: FOR OVER 30 YEARS STAINLESS STEEL BOWLS

**S**atinox has been manufacturing perfectly welded stainless steel bowls for more than 30 years.

They are made by hands to fit the machines used to knead and mix dough for the bakery and pastry sector as well as for the chemical and pharmaceutical sector.

The company was founded in 1982 and since that it has been a strong believer on the value of manual metalwork fabrication.

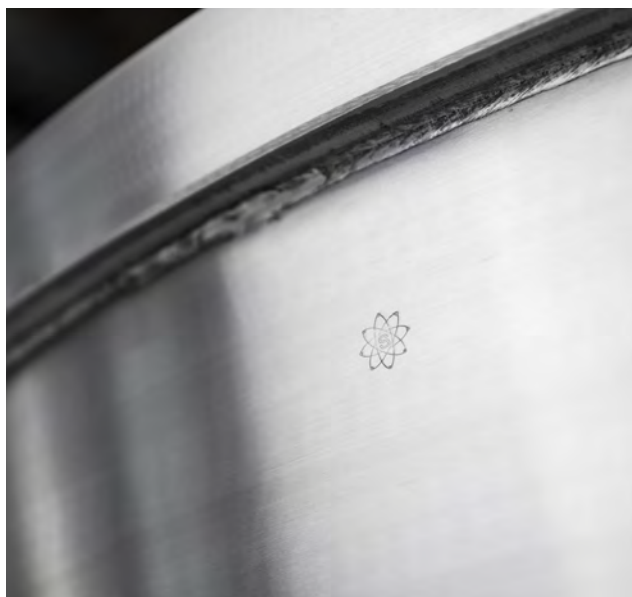
All bowls are made by expert and specialized workers, able to manufacture robust, versatile and longlasting tailor-made products.

Satinox can count on a team that works together with passion and professional expertise, uses high-quality materials and is continuously fine-tuning its metal fabrication and welding techniques.

In fact technical expertise and knowledge go hand in hand with the qual-







ity of the materials and the ability to turn traditional artisan metalwork fabrication into expert joining technique.

During the years Satinox definitely increased fabrication of bowls for industrial use: leavening containers and bowls with bottom self-draining system for continuous mixing lines as well as bowls with heating/cooling system for specific kneading purposes and bowls with customized brackets for handling automation.

From project development to product manufacturing careful examination of any special production needs is utterly essential to find the ideal solution to optimize bowl performance and consequently machine performance.

Strict compliance with the drawings, the painstaking attention to tolerances along with machining precision guarantee tailor-made products of any shape and size. 🏭

**[www.satinox.com](http://www.satinox.com)**



# Advanced traceability and information reliability

The food industry nowadays has the important need to monitor every step relating to the production process of what it places on the market, so as to provide consumers who are now increasingly attentive and aware, accurate and exact data related to the quality of their products. Connecting Food solves this imperative by providing an indispensable tool for quality management.



*Stefano Volpi*  
Connecting Food

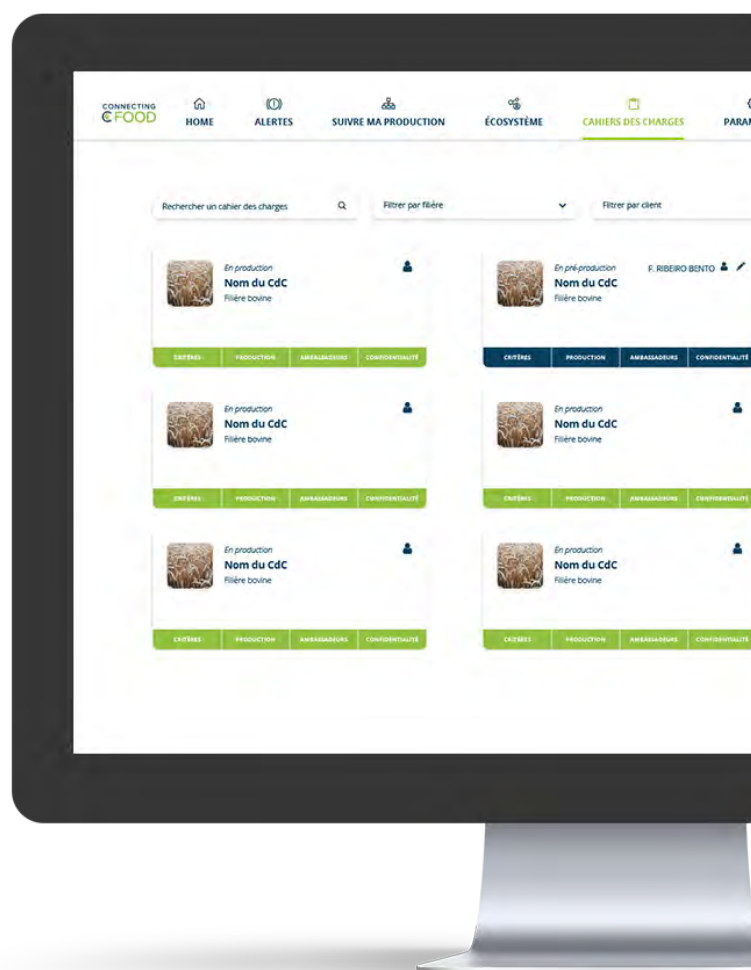


## **W**here did the idea for Connecting Food come from?

Prior to founding Connecting Food, Maxine and I spent 40 years working for various agri-food companies. Throughout our careers, we saw how the lack of transparency in food supply chains was impacting consumer trust, and how much damage food scandals were doing to brands. We began looking into possible solutions for resolving this trust issue, and came upon blockchain technology, which was growing at the time in the FinTech market. We realized that those same blockchain principles could be used to not only ensure the total traceability of a food product, but to also ensure that each actor along the food chain truly respected their commitments and delivered the right product to the right customer.

## **Why did blockchain feel like the right tool/technology for this business?**

As a secure distributed ledger, it was obvious that blockchain had the potential to play a key role when it came to sharing information in a secure way. Data security is especially important in the food industry, as it is both a very competitive market, but also a highly risky one; everyone is very concerned about ensuring their privacy while obtaining food safety and food traceability. Therefore, we opted for Hyperledger





Fabric, a private, permission-based blockchain. Hyperledger is known as the 'blockchain for business', as it enables a consortium of actors to set different levels of user-rights when it comes to sharing, writing, and reading information. This is vital for a producer for example, because if you're selling half of your production to one client, and the other half to their competitor, you obviously don't want all of your orders to be visible by both of your clients!

Another advantage to Hyperledger blockchains is that they do not require any mining, meaning they are much more energy efficient than public blockchains.

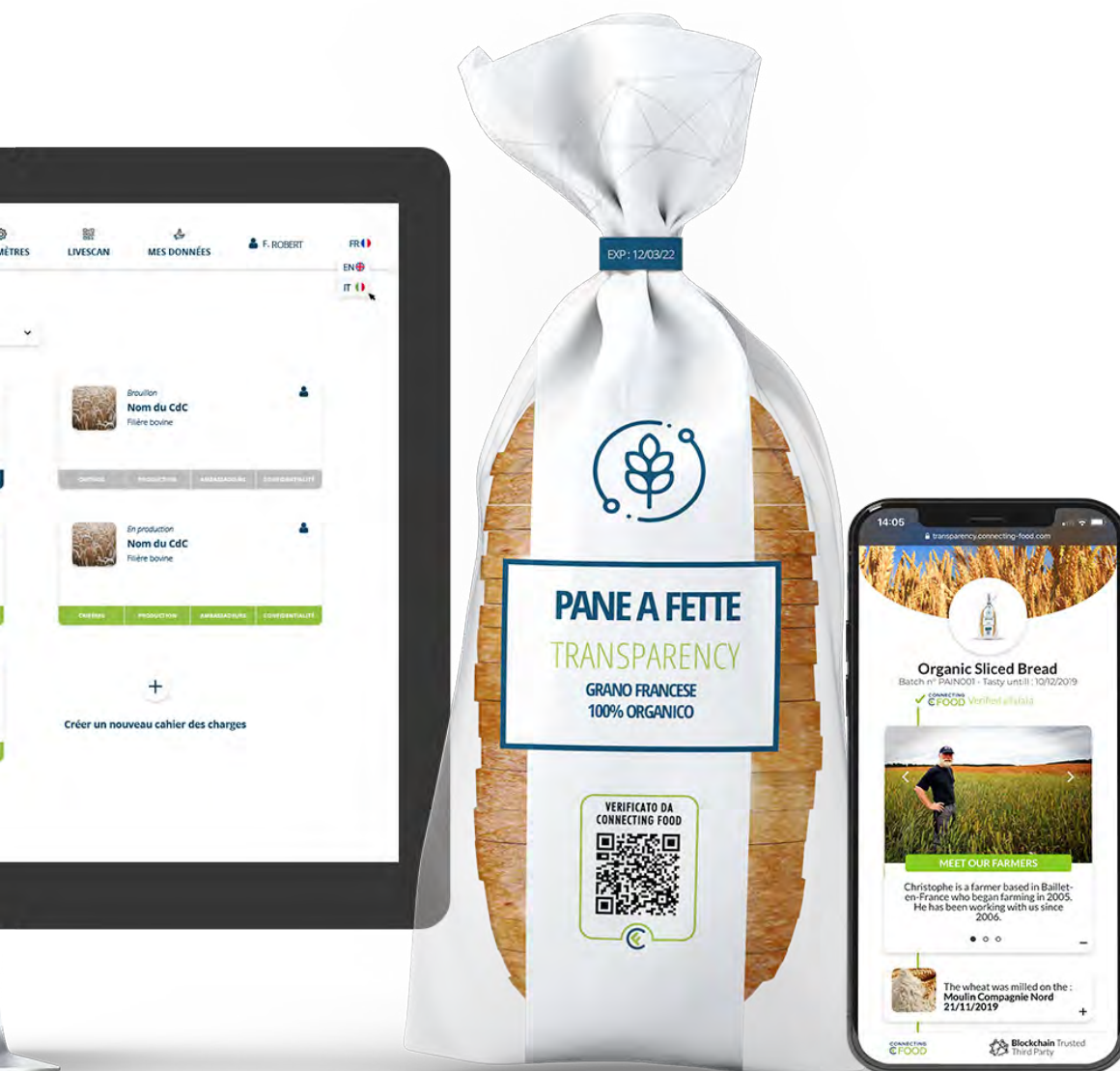
There is one common misconception about blockchain that we would like to address. Many people think that blockchain technology alone will be able to resolve the trust & traceability issues plaguing our industry. However, it is important to understand that blockchain simply records the information you enter in and renders it im-

mutable – it will not in any way tell you if that information is accurate.

This is what drove us to add an additional layer of intelligence to our blockchain platform, which allows us to first validate the data's veracity prior to recording it on the blockchain, providing the peace of mind our users needed to feel confident sharing data upstream and downstream. This process occurs via our LiveAudit® module, which is a combination of mathematic calculations and algorithms, and gives our clients the ability to verify in real-time that every single product is compliant with its product specifications.

### What has been the role of sustainability in the process of setting up the business? How important is it to the model?

Sustainability is at the heart of Connecting Food, as our mission is to identify supply chain problems in real-time,





limiting the risk of product recalls and food wastage. We believe that traceability is the founding principle of sustainability in the food business: knowing where your product came from and how it was made should be the basis of any sustainability roadmap.

In terms of food waste, we have a very important role to play on the industrial level, as Connecting Food identifies non-compliant batches of production in real-time.

In the past, batches were often found to be non-compliant they had already been packed and/or shipped to a retailer, meaning everything had to be destroyed, regardless of what the problem was.

By using the Connecting Food platform, producers and manufacturers can identify the problem earlier on in the food chain, allowing

them to downgrade the product or reroute it to another food chain instead of throwing it away.

Our LiveAudit® module is also a great tool to measure and prove that the CSR commitments for a product are truly being kept. For instance, if a product is supposed to be locally sourced, organic, GMO-free, or pesticide-free, our platform can verify this by leveraging production data, therefore proving the promises of the brand.

The Connecting Food platform enables our clients to put proof of sustainability directly into the hands of the end-user, instead of just saying 'believe me, they are sustainable' – and this makes all the difference in today's era where connected consumers want to be able to verify everything for themselves! 🏠





# FRUIT LOGISTICA MOVES TO APRIL 2022

## THE WORLD'S LEADING TRADE FAIR FOR GLOBAL FRESH FRUIT TRADE IS BEING POSTPONED TO 5-7 APRIL 2022

**T**he fourth wave of the coronavirus pandemic is worsening the situation in many European countries. At the same time, the industry's wish to meet in person remains unwaveringly high. In light of these circumstances, Messe Berlin has decided to postpone FRUIT LOGISTICA to a point on time beyond the fourth wave. FRUIT LOGISTICA 2022 will thus be held from Tuesday, 5 April to Thursday, 7 April.

"We are sticking firmly to our goal of meeting on-site again. We expect that the situation will begin to alleviate in February due to the precautionary measures being taken. The new dates make it possible to hold a FRUIT LOGISTICA that will pay off for our international guests and presenters. We look forward to hosting people from around the world once more under better circumstances,"

explains Director Kai Mangelberger. With exhibitors from over 80 countries, FRUIT LOGISTICA will once again present the entire global value chain of the fresh fruit industry in April 2022.

### About FRUIT LOGISTICA

FRUIT LOGISTICA is the leading trade fair for the global fresh fruit trade, and represents the entire value added chain for the fresh produce industry from producer to point of sale. More than 3,300 exhibitors from 91 countries presented their products, services and technical solutions at FRUIT LOGISTICA 2020. Around 73,000 vendors and trade visitors from 135 countries took part in the event.

The next FRUIT LOGISTICA will be held in Berlin from 5 to 7 April 2022.



### About Messe Berlin

Berlin has been a trade fair destination for 200 years, and has been one of the most important such hubs for many decades. Messe Berlin – the state's own trade fair company – conceives, markets and organises hundreds of live events every year. It strives to be an outstanding host for visitors at all events, generate optimal business stimuli, and provide fair conditions for everyone. This concept is reflected in the company slogan: Messe Berlin – Hosting the World. 🏛️

[www.fruitlogistica.com](http://www.fruitlogistica.com)



# AERAQUE: SINCE 1984 OZONIZATION OSMOSIS UV RADIATION

**S**ince 1984 AERAQUE has been producing technologically advanced systems for the treatment of water using processes such as ozonation, osmosis and UV irradiation, and when necessary a combination of these technologies.

To date, there are over 1.400 Aeraque systems in 58 countries over 4 continents.

The plants, depending on the destination, comply with European standards (CE), and/or other according to the customer's specific requirements (EHEDG, UL, EAC, CQC, G-Mark, ecc.). Besides, AERAQUE is certified ISO 9001:2015 by TÜV SÜD in "Development, Manufacturing and Maintenance of Ozone Systems for Industrial Applications".

AERAQUE's expert technicians are often assessed by external collaborators specialized in specific areas. The

result is constant growth in terms of knowledge and experience in the use and application of new technologies.

## WHY CHOOSE AERAQUE?

- Wide experience
- Innovative solutions
- Constant research

## SOME SECTORS AND INDUSTRIES WHERE WE OPERATE

- Food and Beverage
- Chemical and Pharmaceutical
- Aquaculture
- Agriculture and Breeding
- Research

## INDUSTRY

Some industrial sectors present critical issues, mostly in sanitization, disinfection and purification, and disposal of the waste produced. The problem that arises is applying technologies that allow us to operate efficiently, always aiming to preserve the health of the environment. In this sense, the Ozone technology

presents itself as an excellent and versatile solution.

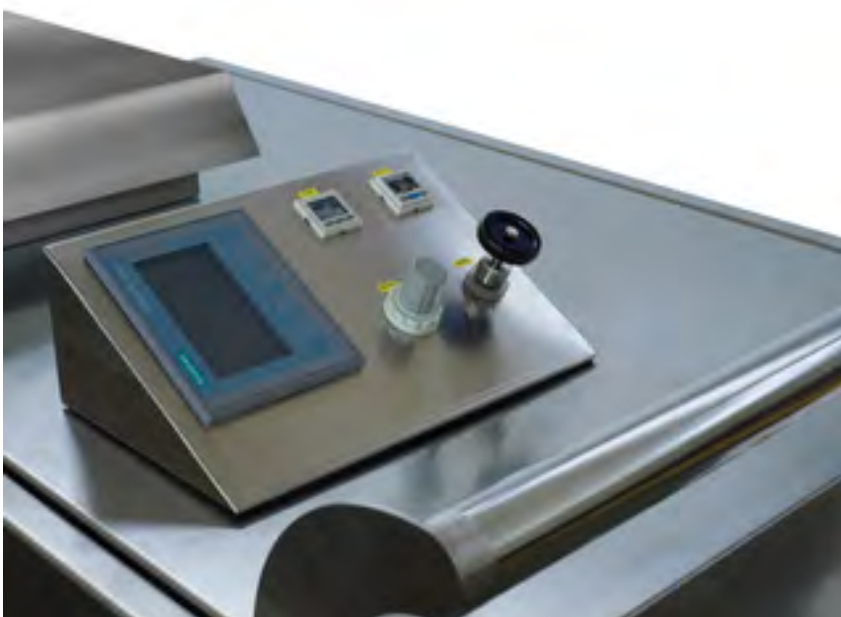
Aeraque analyses the problems and uses its multidisciplinary approach to determine the best possible solution. Ozone technologies can be used especially in those industries that require safe disinfection, such as the pharmaceutical industry and ultrapure water-based preparations, and the food and bottling industries.

## RESEARCH

We are building today for the future, providing innovative products, processes and solutions that give our customers a competitive advantage. Research allows AERAQUE to design and produce unique and cutting-edge prototypes. That's why we collaborate actively with industrial laboratories, University Scientific Departments and Research Laboratories.

## PRIMARY WATER AND WASTE WATER TREATMENT

The use of Ozone is an excellent





solution for treating a variety of water sources needed for human consumption (domestic, animal, agricultural or industrial). Water sources usually have dissolved substances that make it impure and must then be treated before their final use.

Ozone can eliminate microbiological and chemical pollution, thus making the water perfectly clear and tasteless.

Waste water instead is that derived from human use. It contains substances that can be harmful to health and environment. It must go through various purification treatments before being reused or discharged into the environment. Ozone systems are most suitable for treating some types of slag water.

AERAQUE establishes the best type of treatment in terms of cost-benefits, taking into consideration a detailed report on the origin of the waste water, the technical and chemical data provided by the customer, the reference regulatory parameters and any analyses performed directly by AERAQUE. 🏠

**[www.aeraque.com](http://www.aeraque.com)**



# READY MEALS: BETWEEN SOCIAL TRENDS AND GREEN REVOLUTION. THE IMPACT ON PRODUCTION LINES

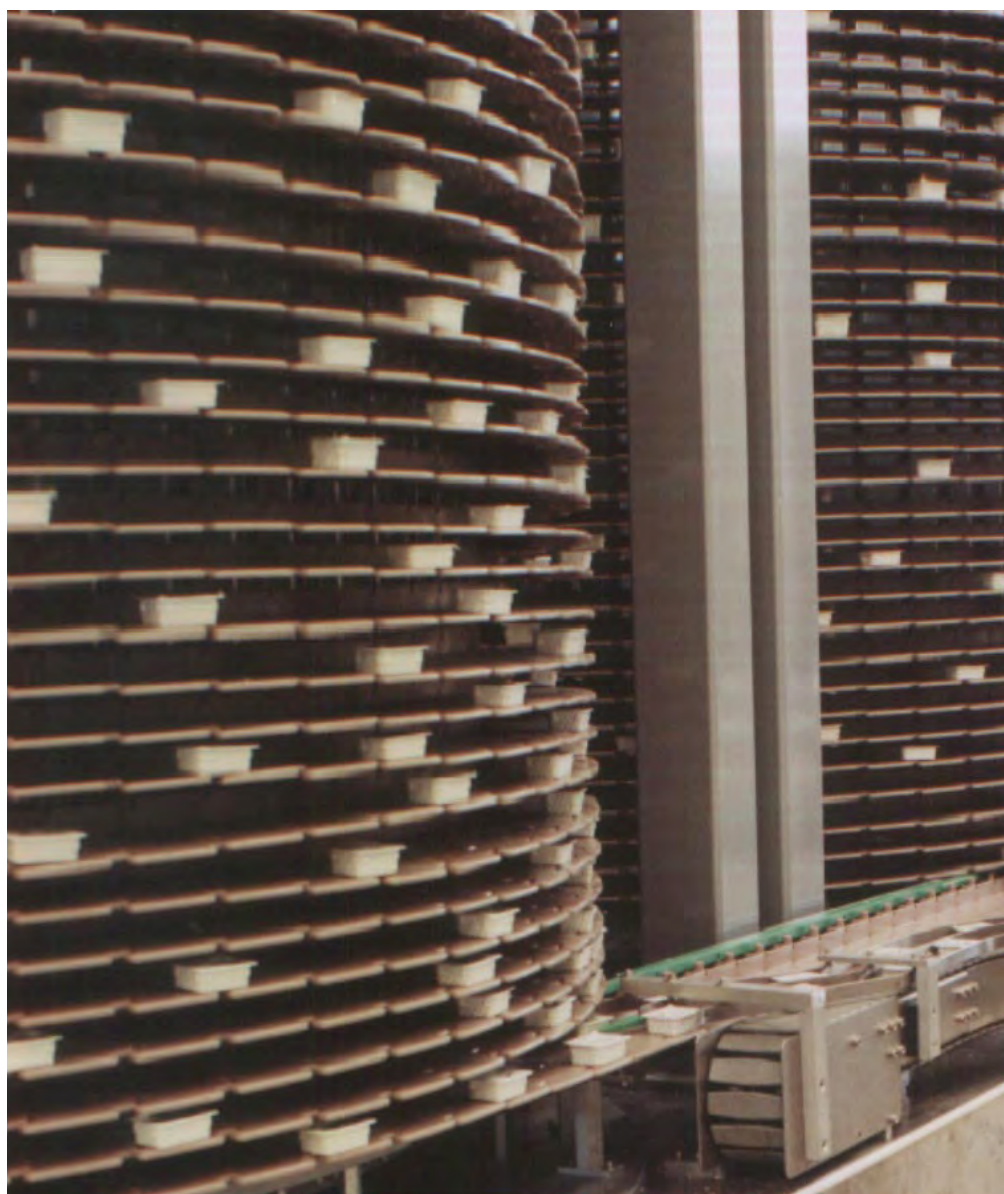
**T**he Ready Meals market has been extremely interesting for many years now, a sign of social changes and in people's consumption habits we are seeing different trends: small portions for singles or for those who consume quick meals in the workplace, frozen or freeze-dried family formats for families in which both members of the couple work full time and have less time available or even vegetarian or vegan dishes.

The list is actually very long, but these two are the most relevant to us because they require a more significant technological adaptation, both in the production phase and subsequently throughout the supply chain.

We refer to the search for more elaborate and higher quality recipes, possibly fresh and to the ecological drive that leads to radically rethink the packaging, forcibly disposable, of products that are candidates to be consumed even on a daily basis.

Considering this, we want to concentrate on gastronomy, including in it the different recipes of fresh pasta, savoury pies and prepared meats which can be combined with different varieties of side dish.

The first element to be analysed is obviously the type of packaging and things are already complicated because the need to put a fresh and not frozen product on the shelf, which should therefore be packaged



in a modified atmosphere, is in contrast with the fact that the packaging materials suitable for this type of packaging cannot be biodegradable or compostable (at least at present), while some compromises can be obtained with vacuum packing. Wheth-

er you choose compostable materials or stay on the plastic, as long as it is recyclable, with the push for the maximum reduction in the amount of material used, the result from the point of view of the manufacturer of processing or packaging machines



is the same: you will find yourself at having to treat more delicate, fragile or at least very deformable products which therefore introduce some complications.

The first sore point concerns the performance of existing machines: lighter and thinner materials or materials with different characteristics may require a lowering of the line speed,

lation is extremely reduced or even gone for good.

Along with the problems, as always, opportunities also arise and in this case, it is possible to proceed to divide the required production on a greater number of slower machines starting from the tray denesters which at this point will work on a greater number of columns. The lin-

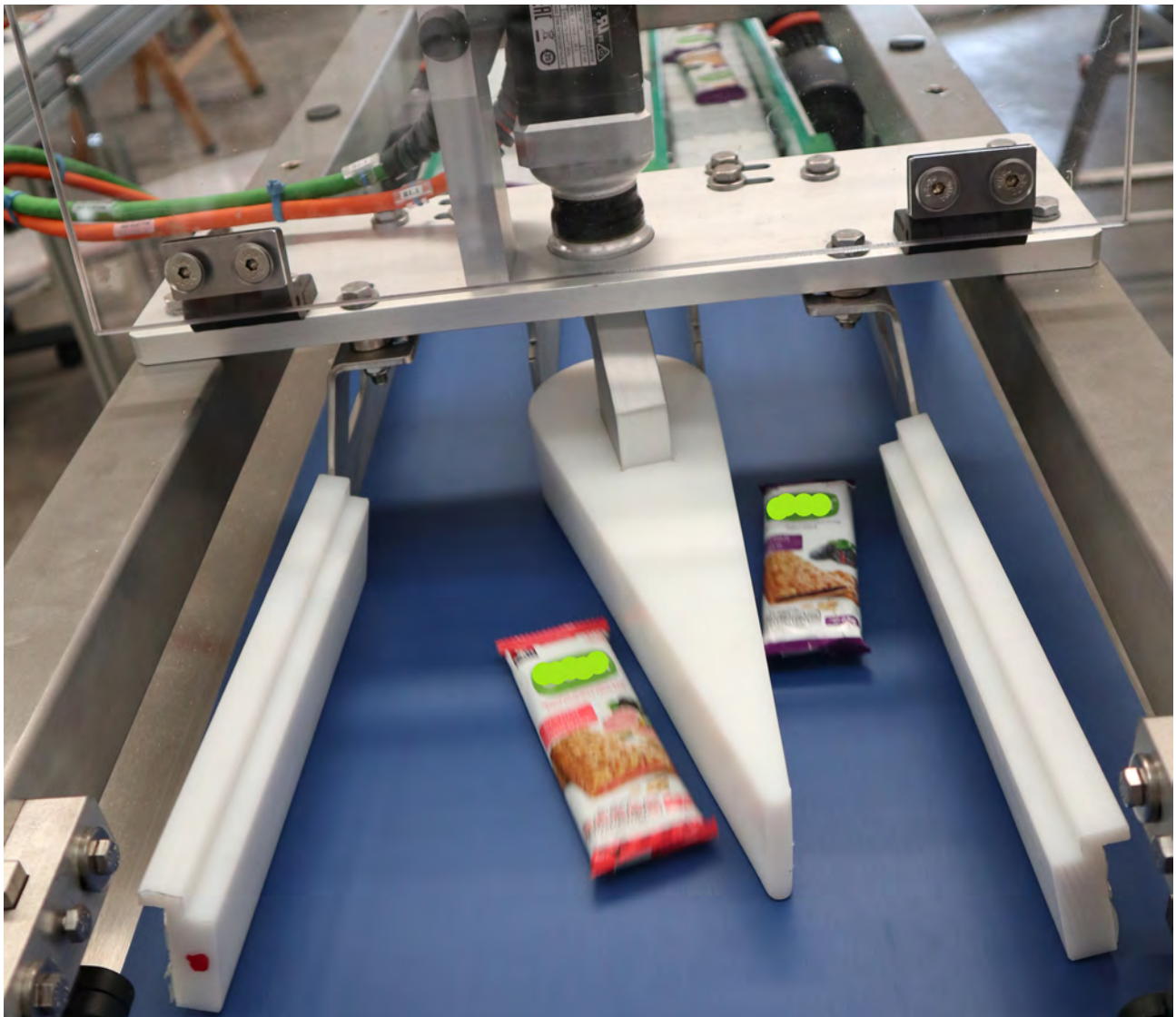
ear speed of the conveyor belts will also drop to the advantage of less stressed mechanics and ultimately more efficient lines.

While increasing the number of rows is not a significant problem for process lines and ovens as they already provide for this mode of operation, things could be a bit more complicated for sealers and secondary



to keep the machine flexibility. The worst situation is of course that the equipment has to be replaced completely. The second problem, which has greater impact for M.H. Material Handling as conveyors manufacturer, the possibility of product accumu-





packaging machines. By reducing the possibility of accumulation, the management of the micro-stops for joints or for feeding the packaging warehouse (reels or cardboard) becomes critical.

The duration of the stops could also increase, since lighter packages may correspond to a longer cleaning or washing cycle. Here too the solution exists and can help balance the differences between the production flows of the different machines present in the line.

Inserting a buffering system, strictly WITHOUT PRESSURE, is the right answer. The choice of LIFO or FIFO operating mode depends solely on the product, its shelf life and the possi-

bility of remaining on line for several minutes without deteriorating or suffering from a degradation of quality. We can give the example of an application created recently in the gastronomy sector of a GDO customer. Our **BAT-Buffer**, here in the version with stainless steel structure, was placed at the exit of the oven and before the tray sealer.

The oven is obviously a machine that does not allow stops, otherwise the product will be destroyed and even the risk of fire, the buffering system allows line operators to have about five minutes to resolve the micro-stops or, in the event of catastrophic breakages, to organize the stop of the line and the manual emptying of the oven.

A final mention on cooling systems which can be the **Heliflex** or refrigeration: from a mechanical point of view, these devices do not suffer particular impacts when used with new packages, but the heat exchange and therefore the cycle time could undergo changes, it is a good idea to carry out a check in this regard. 🏠

[www.mhmaterialhandling.com](http://www.mhmaterialhandling.com)





# ANDINA PACK 2021 A HUGE SUCCESS

Committed to the reactivation of the sector, Andina Pack has been the host of more than 173 exhibitors in the food, beverage, pharmaceutical and cosmetic sectors in Bogotá Colombia

**A**ndina Pack, the leading Processing and Packaging trade show in the Andean Region, Central America, and the Caribbean, took place 9-12 November in Bogotá Colombia, bringing together the latest innovations in technology after a year marked by the pandemic.

The technological innovations presented to 14,000 trade professionals were distributed across the following industry sectors covering the entire value chain in the production of food and pharmaceuticals: ingredients, processing technology packaging, intra coordination, food safety, printing, and labeling.

Once again, exhibitors highlighted Andina Pack to be a show with excellent quality clients, many machines sold onsite, which boosted business throughout the week.

The comprehensive depiction of all process steps from the processing of the raw materials through to the finished product is one of the key reasons why Andina Pack is the most complete exhibition in Latin America. With the launch of its ingredients sector in 2021, Andina Pack has kept its brand promise of targeting all industry needs in the production process of food and pharma.

Andina Pack 2021, over exceeded expectations after a year of pandemic, with more than 173 exhibitors, 37% of them international.







Its event programme with special showcases and congresses, like its food processing and packaging summit and a specialized area in ingredients has helped attendees transform their business and benefit from outstanding contacts.

“As organisers, we have been amazed by the incredibly positive response from the industry.

The feedback from our exhibitors and visitors has been incredibly positive from day one, confirming the importance of face – to face exhibitions compared to other kind of events.

Andina Pack 2021 had even more leads at this show and more all-around quality engagement with attendees than our last edition before the pandemic.

Our next edition will take place 14 – 17 od November of 2023 and we

hope to over exceed all expectations.” says Christian Guarin, Managing Director Koelnmesse Colombia.

“For us, participating in Andina Pack 2021 meant supporting the economic reactivation of an industry, which,

although it has been affected by the pandemic, has managed to stay firm has sought to adapt through technology and innovation to meet the needs of the sector” says Fabio Rios, General Director of Ulma. 🏭

**[www.andinapack.com](http://www.andinapack.com)**





# CLEAN BETTER, SAVE MONEY

**Y**es, every food processor that has purchased a Euro Pumps EP50-75.SRT unit has saved money and reduced their cleaning cycle time.

- **RTE Salad** - Went from 4 hours to 1 hour cleaning
- **Bacon** - Went from 5 staff to 2 staff (blue guns I will kill on saving)
- **Fish** - Went from 2 staff @ 2hrs to 2 staff@ 0.75hrs
- **Food Process** - Went from 16 staff to 11 staff

## How do they do it?

The Euro Pumps EP50-75.SRT is the most advanced, flexible cleaning platform in the world. It is a smart, high-temperature ready (up to 90°), hi-flow, variable pressure trolley. Your Euro Pumps EP50-75.SRT platform is a mobile cleaning platform which can clean anything in a food production or critical clean facility.

## Real proof not sales BS

Back in June 2018 Euro Pumps was contacted by the QA Manager at an Australian abattoir asking us to attend site as a consultant to view the cleaning cycle and advise improvements on their cycle.

We attended the site and stayed the whole night right through to Pre-Op so we were able to view everything.

A report was provided to the plant QA and Management noting Euro Pumps observations and advice on improving the cleaning. We agreed to an on-site trial with one of our



units to help management and supervisors better see how time and labour would be saved. After a good month of trialing, it was obvious to all parties that they would save labour and time and they initially purchased 5 machines, with more to come.



## One year on

Over the 12 months between 2018 - 2019 we noted that the company had saved 25% labour, Euro Pumps then attended site quarterly over the year to make sure that they got the best out of the equipment. I was really proud to be helping the client get the best results possible from their cleaning and was happy that they trusted me, it was a great pleasure working together. They are an extremely energetic, "can do" group of people.

## 2 years on

So another year on, Euro Pumps visited the site January 2021 and the cleaning crew are now comfortably running a 2 hour cleaning cycle. With work finishing at 2am on the main floor and 2.45 by the time the packing room is finished, 2 hours later production staff are walking in to get ready to go again.

We are thoroughly impressed with what we witnessed, the management is maximising the production capability of their plant. Jo Field said "it's a pleasure working with people that have lots of energy and just get things done. The client has now purchased another SRT for their new area on the extended section of the boning room.

A Euro Pumps SRT mobile cleaning unit, will reduce scourer use, except



## The smarter platform so you can clean faster, with better flow and at higher temperature



for a very small percentage of the jobs. We have ultra fast cleaning times & excellent micro results without scourers.

### **Most customers are using the trolley and nozzle alone!**

When you purchase a Euro Pumps EP50-75.SRT staff get the training and support to use the equipment properly, the training is Hands-On so the cleaners can be confident and learn. If you would like to discuss reducing your hand scrubbing or improving hygiene times please contact us today. We believe that a variable pressure - high temperature capable machine will offer you a faster better cleaning, foaming and sanitising, using less water and producing better cleaning KPI's.

We have been "real world" trialing it intensely tweaking sensors and PLC's, while doing our own cleaning contracts and consulting/clean-



ing trials in abattoirs and factories to ensure you get the best possible

outcome. Now we are excited to present to you these units capable of running at Cold to Abattoir hot at up to 50l-min which has never been possible in a mobile unit before.

SRT units are supplied standard with a PLC Control System that manages protection, safety and maintenance features like oil pressure sensor, input flow sensor to create what we believe is the best wash and foam trolley. It washes, foams & sanitizes with the power to clean drains, chutes, floors (with floor cleaner), roofs, chillers, refrigeration units and more!

Find out how to a Euro Pumps can improve your cleaning quality visit us at [www.europumps.com.au](http://www.europumps.com.au) or call us on +61 409 123 850 🏠





# PROTEC, TECHNOLOGICAL HISTORY IN CONSTANT EVOLUTION

**P**ROTEC is an industry leader, specialized in the design and production of sorting machines for companies that work and process agri-food products. The PROTEC factories located in Collecchio, Parma, have for almost thirty years designed, developed and manufactured electronic inspection and selection systems that use optical sensor technology applicable in the processing of a wide range of food products in various industries.

The founder and president of the company, Luigi Sandei, is a visionary in his field.

His first futuristic idea came about in 1968, when he designed the first machine for mechanized harvesting of tomatoes: a machine destined to change the way this vegetable was harvested in Italy and in Europe forever. Twenty years later, the entrepreneur from Parma came up with another production problem in need of a solution, that was the application of optical sorting machines during produce collection, there was a need for machines that were able to carry out quality control and discard unsuitable produce, before delivering the product to the next stage of processing down the line.

With this idea in mind, in 1990 Sandei founded PROTEC-Sorting Equipment, the first Italian manufacturer of optical selectors that was 100% Made in Italy. These machines are able to detect defects in products and foreign bodies on the selection lines, discarding them with extreme precision. Thanks to the color selection and infrared illumination, only regular and uniform produce is selected based on the item's degree of ripeness, skin and pulp integrity. The defects that



**ASPIRUX PF50:** suction ejection sorter with 1 to 4 cameras for fruit and tomato pulp, diced compotes and extruded

need to be expelled can be preset by the user via simple touch-screen technology.

From that moment on, the development of PROTEC technology has only moved quicker, and the company now has a new mission: to offer its customers safe, accurate and efficient products that solve all types of production requirements. PROTEC, which was established to facilitate Sandei self-propelled harvesting machines to collect tomatoes, has over time has been able to utilize the same technological expertise for other products such as olives, vegetables, corn, legumes, seafood, salads, potatoes, nuts, chestnuts and grapes selected for winemaking.

The present range of optical sorting models offers users a wide range of

functions, which both assist with and apply to the food, wine, fish and agricultural sectors.

The history of Protec is as important as its future. The company is continually expanding, thanks to its powerful Research and Development Department, which supplies the innovative technology to create sorting machines that are not only efficient and reliable but also precise and capable of increasing the production and technological prowess of companies in the agrifood sector, even those with specialized projects. Among the many accolades that PROTEC is most proud of are those that have transpired in the wine industry.

These distinctions prompted Sandei and the team to create a dedicated

*continued on page 63*



# Sarchio: when organic and gluten-free is synonymous with goodness

by  
*Gabriele De Luca*



*Cesare Robert*  
CEO of Sarchio



**E**ven before ecology and “healthy eating” became topics of current interest and received wide attention from the media and companies, Sarchio made environmental sustainability and food wellness its mission. The first Italian company to offer organic and gluten-free food, Sarchio has been committed since 1982 to the production and marketing of organic, healthy, and natural food. Starting from the typical foods of the initial traditional Italian cuisine - which have remained within the range - Sarchio has specialized in more innovative products, dedicated to those who follow particular eating styles or are intolerant to certain ingredients, with a focus on gluten-free and vegan.

To learn more about this innovative company, we interviewed Cesare Roberto, CEO of Sarchio.

**Your company has been committed to sustainability since its origins, at a time when attention to ecology and respect for the environment was not yet as widespread as it is today. Where does this attention come from?**

Respect for nature and the environment and the spread of the culture of a correct and healthy diet have always been our company mission, to which we add a careful selection of the best organic raw materials, for safe and healthy products.

**Talking about the introduction of regulations related to organic products, you touched on a fundamental point: how did the introduction, in 1991, of the EEC Regulation regulating organic farming methods influence your reality?**

Before that date, there were several agencies in charge of verifying that foods called organic met certain requirements in the production, processing, and transformation of raw materials. The introduction of a Community Regulation that regulates the method of organic farming and defines univocal “rules of conduct” has allowed to spread a real culture of “organic” and to define a set of univocal rules to be followed by everyone.

**Another important date for the development of Sarchio is 2004, the year in which the company began the process of**





**obtaining authorization from the Ministry of Health for the production of gluten-free dietary foods. Even more decisive was 2006, when with the arrival of the authorization Sarchio became the first Italian company to produce organic and gluten-free foods. Where does the attention to gluten-free come from?**

Sarchio has always promoted a healthy, balanced diet with a high nutritional value. The research and the intention to offer innovative products with a high health and nutritional content has spontaneously translated into the development of a line of organic products suitable for those who follow special diets related to food intolerances: today an entire production area of the company is dedicated to the production of gluten-free products.

Researching goodness and ensuring a high standard of quality remains the guiding principle of the entire range of products. All products are designed to be good and suitable for the whole family because they are produced first of all with strictly selected organic raw materials. Our motto is "Good for everyone because they are organic and also... gluten-free".

**What are the main markets in which the company operates? Do you also export abroad? Is there a typical customer?**

As far as our distribution is concerned, today we are 90% in Italy and 10% abroad.

Sarchio's "typical customer" is certainly the consumer who supports a lifestyle based on health, wellbeing, and sensitivity to environmental issues, who prefers organic food and its natural and simple flavours as an alternative to conventional food. The entire range includes almost 180 organic products, including a gluten-free line (about 90 items) refundable by the National Health System and a vegan line: a complete range ideal for coeliacs, vegetarians, vegans, adults, children, and anyone who wants to make a healthier and more balanced diet a real lifestyle.

**So far we have talked mainly about the choice of raw materials, but committing to the environment and ecology is not limited to the choice of sustainable products, it is a complex process, made of different stages. It starts with production, goes through transportation, packaging,**





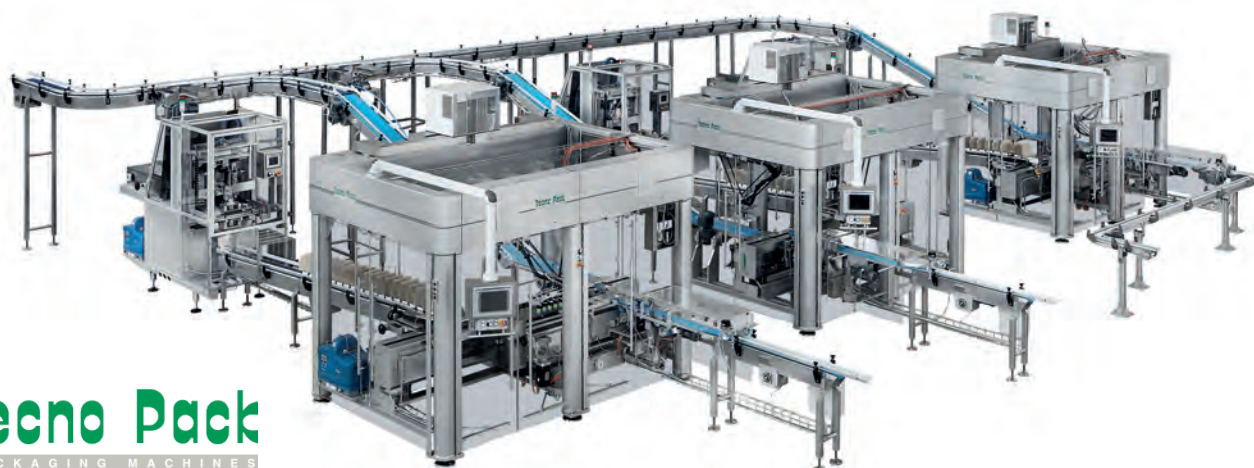
**distribution, and sales. How does Sarchio take care of these different aspects?**

The use of “clean” energy with a perspective of energy saving and environmental sustainability has been a priority that has conditioned the plant choices. Our company headquarters is built according to innovative building criteria, energy efficiency and low environmental impact, also from the point of view of the systems: we have a photovoltaic system with a total power of about 110,000 kWh/year that covers almost all the energy needs of the structure, and thanks to special compressors we recover hot water for the production areas.

**Packaging is an extremely important and controversial issue, as it is closely linked to the production and disposal of plastic materials. How does Sarchio reduce the impact of its product packaging on the environment? Do you use particular technologies in this area?**

We have been working for some years on gradually replacing the external plastic present in the packaging of our products with paper. We have eliminated 60% to 70% of plastic from the wrapping of cookies and breakfast cereals and this change will involve a large part of the Sarchio range. We pay particular attention to the packaging phase of the products where recyclable materials such as cardboard and paper tape are used, trying to limit the use of non-recyclable materials to a minimum.

As far as the packaging of our products is concerned, our partnership with Tecnopack, a company that produces machinery for the packaging and preservation of products with which we have been collaborating since 2012, is fundamental. It was together with Tecnopack that we accepted the challenge of trying to minimize the impact of packaging, making it 100% recyclable. A challenge that today, thanks to this strategic partnership, we can consider won. 🏠



**Tecno Pack**  
PACKAGING MACHINES





continue from page 59

## Optical sorting Machines that are made in Italy for the vegetable, fruit, seafood, wine and agricultural industries

wine division. In recent years, the company has installed more than sixty different grape selectors tailor made for winemaking. These are not only found in Europe (Italy, France, Spain, Germany, Austria) but also in Japan, the Napa Valley, California, South Africa, Chile and Argentina. The company name has become a reference point for the wine sector, thanks to x-tri technology.

PROTEC's commitment to research and innovation is also demonstrated through the rewarding collaboration the company has developed with the University of Parma, with whom there is a mutually beneficial exchange of resources. As PROTEC uses state-of-the-art equipment to carry out its experiments, the company can offer real-life opportunities for young and deserving engineers to work and study inside a modern and stimulating business reality.

The PROTEC optical sorting machine collection is designed for agriculture and the industrial processing of food products. The current range of products is the result of many years design and management experience and the development of a highly competent and motivated professional team who are continuously developing ideas and processes that can adapt to the most varied project requirements and production lines.

In 2021 Protec has designed and placed on the market a new sorting machine called X-TRI 50 ECO, more compact and customizable to sort different products especially winemaking grapes, easily adaptable to new and existing processing lines. This machine is equipped with the most advanced artificial vision system for a deeper grape analysis. This model "ECO" is the new line of sorters that are also suitable to sort whole vegetables, in leaf and fruit. Always one step



Air ejection sorter for winemaking grapes.

**X-TRI ECO**  
the winemaking grape  
sorter for small cellars



ahead, Protec brings innovation to the sorting world. 🏠

[www.protec-italy.com](http://www.protec-italy.com)



*For quality lovers only.*

ELECTRONIC INSPECTION SYSTEMS AND MACHINES FOR THE FOOD INDUSTRY.



[www.protec-italy.com](http://www.protec-italy.com)

# FARA® FUNCTIONAL SYSTEMS FOR PLANT-BASED NUTRITION: FARABURGER!

Based on hydrocolloids (stabilisers and emulsifiers) Faravelli's FARA® functional systems have always guaranteed the best balance between innovation, cost and quality

**F**ARA® functional systems, from the simplest to the most sophisticated, are tailor-made, following specific customer requests.

The blends include emulsifiers, natural hydrocolloids and functional ingredients that give foods and beverages unique characteristics, for example a well-defined structure, good resist-

ance to thermal stress, improved consistency, or a characteristic and consistent taste.

The added value is not limited to improving product quality. Functional Systems, in fact, simplify the phases of research and development, quality control and approval of raw materials, with important economic, practical and operational advantages.

They can be used in the most varied sectors of the food industry.

A rapidly growing trend, **the plant-based diet** favours the consumption of plant-based foods, such as fruit and vegetables, but also nuts, seeds and oils, whole grains, and legumes. In addition, although not biologically classified as plants, mushroom and algae products are also included in the definition.

According to a 2017 Mintel study, which is also collected by the Plant Based Association, taste is the main driver in consumer decision-making, even for plant-based foods. Therefore, it is important to offer products on the market that are not only healthy but also have the organoleptic characteristics that consumers are looking for.

Faravelli has developed a range of functional systems purposely dedicated to the vegan and vegetarian sector, the latest launches being Faramix HH 105 - intended for vegetarian meat alternatives - Faramix FV 104 for bakery products, both savoury and sweet.

## **FARAMIX HH 105 for meat-no-meat burger**

FARAMIX HH105 is a functional sys-







tem to obtain a “meat-no-meat” product (hamburgers, meatballs, sausages) with visual characteristics and compactness identical to classic ones: meaty, juicy, pleasant to the palate. Within the plant-based diet, the “meat-no-meat” category is growing just as fast and responds to the new needs and sensitivities of a growing consumer segment. Plant-based meat is produced directly from plants. Like animal meat, it is composed of proteins, fats, vitamins,

minerals and water. The new generation of plant-based meat looks, cooks, and tastes just like conventional meat.

#### CHARACTERISTICS OF THE FINAL PRODUCT WITH FARAMIX HH105

- very juicy despite the absence of fats
- neutral taste (soya is not perceived at all), no flavouring, therefore very adaptable to the taste.
- structure identical to the classic meat burger, without syneresis.
- very versatile, it can be adapted to the most diverse recipe and format requirements, while maintaining its juiciness and fat-free characteristics.

A product so juicy and meaty, people won't believe it's made from plants! A food that is not only good and high in protein, but also an ally of environmental sustainability.

#### A certified quality production plant

First-class expertise in the selection of raw materials available on the market, special attention to food safety issues and a state-of-the-art production plant are the prerequisites to be the reliable partner in the production of powder blends. Faravelli's production plant is located in Nerviano, near Milan. It houses a packaging line for customisable solutions and an application laboratory where finished products are tested with methods that closely reflect the final application.

Both the production plant and the Applications Laboratory operate within the Faravelli quality system and are certified according to ISO, IFS, HACCP and FDA standards. 🏠

**[www.faravelligroup.com/functional](http://www.faravelligroup.com/functional)**  
**[fara@faravelli.it](mailto:fara@faravelli.it)**

 **FARAVELLI**  
 THE BEST INGREDIENT

# DUETTI PACKAGING INNOVATION FIRST AND FOREMOST

**D**uetti packaging was founded in 2008 in Galliera Veneta (PD) Italy, immediately moving towards the design and construction of end-of-line packaging systems.

The years following its foundation are characterized by a gradual affirmation of the company throughout the Italian and foreign territory, through the creation of a young and professional sales network.

Our production range includes depalletizers, form and close cartons units with adhesive tape / hot melt glue,

vertical / horizontal carton packers, pick & place, wrap-around, traditional / robotized / Cartesian palletizers, handling and supervision systems.

Duetti designs projects by studying the best solution in terms of flexibility, productivity, and footprint.

The attention given at every stage of production, together with an efficient after-sales service, ensures successful installations all over the world.

Duetti Packaging has many years of experience, above all in the beverage, canning and glass industries,

especially meat and fish sauces, pickled vegetables, fruit juices, soft drinks, water, etc.

Special attention is given to technological development in every department, from electronics to electromechanics, from mechanics to programming, allowing Duetti Packaging to present itself with innovative solutions in the field of secondary packaging automation.

Advice, collaboration, and trust are the corner stones on which the company's success has been built with our machines designed and built to



*Robotic layer depalletisation of jars*






*Wrap-around of honey jars*



*Multiple wrapping of cans containing milk powder*

mation, albeit very rapid, has always been accompanied by careful and intelligent production and marketing planning, which has allowed Duetti to establish itself as one of the most dynamic and innovative companies on the market, an essential condition for becoming one of the most recognized partners.

To guarantee the quality of production and services, Duetti Packaging with Industry 4.0 standard and is ISO 9001 certified. 

[www.duettipackaging.com](http://www.duettipackaging.com)

achieve performance, be functional and reliable over time. The structure of the machines allows easy cleaning and maintenance by the operator guaranteeing the quality. Duetti's commitment to research and development allows it to offer

the market increasingly advanced solutions, not only from the technical point of view but also in terms of service quality, optimization of the production process combined with simplicity of use and maintenance. The process of growth and transfor-







# THE **PUMA** MANIFESTO

working together to the end of packaging as  
an environmental issue worldwide







# THE PUMA MANIFESTO

## WHAT IS PUMA?

PUMA is the collective effort of the packaging business community to end packaging as an environmental issue worldwide.

## WHAT IS PACKAGING?

Packaging is the activity of temporarily integrating an external function and a product to enable the use of the product.



*Waste essentially is an unwanted by-product of a (manufacturing) process*



## WHAT IS NVC?

NVC Netherlands Packaging Centre was established in 1953 to stimulate the knowledge and expertise in packaging. Since then, we have grown into an association with over 500 member companies in the Netherlands and abroad. The packing-filling (FMCG) industry, packaging manufacturers, retailers, manufacturers of packaging machines, wholesalers, recyclers, designers, even a number of financial institutions: they all are members of the large and vital NVC business family. The NVC membership, innovation projects (like PUMA), information services and education programme stimulate the continuous improvement of packaging worldwide.

## WHEN IS PACKAGING AN ENVIRONMENTAL ISSUE?

Environmental issues are harmful effects of human activity on the biophysical environment. Waste essentially is an unwanted by-product of a (manufacturing) process. The activity of packaging creates environmental issues when the resources involved, either wanted or unwanted ('waste'), constitute an environmental issue.



*Environmental (planetary) problems caused by us, People, can – and will – also be solved by us, People*



## WHY DO WE HAVE TO ACT NOW?

Packaging has been with mankind already since ancient times in some moderate form, but the 20<sup>th</sup> century has brought a dramatic acceleration. The world 'does it' now at least 320,000 times per second and this is causing substantial environmental concerns. Packaging will only keep it's societal licence to operate if these concerns are properly addressed.

## ABOUT THE MANIFESTO

This Manifesto outlines the way forward to end packaging as an environmental issue worldwide. It consists of the PUMA Model to describe the essentials of the packaging activity and its relation with the resources involved. A conceptual roadmap is presented to be applied by every individual actor and the world packaging community as a whole in a self-organising manner. Key elements are open-minded sharing of reliable information, continuous knowledge development and truly holistic innovation. Environmental planetary problems caused by us, People can – and will - also be solved by us, People.



*Packaging will only keep it's societal licence to operate if the environmental concerns are properly addressed*





# THE PUMA MODEL

## THE VOCABULARY

First, PUMA defines the activity of packaging: temporarily integrating an external function and a product to enable the use of the product. There is no Law prescribing that we must do it (packaging). For instance in recorded music, streaming services like Spotify show that we can live without. If we decide to engage in the activity of packaging, the pack-use-empty (verb) spiral P-U-E is a consequence. This results in emptied packs later in time and at a different location. Waste is defined as an un-wanted effect of a (human) activity. Consequently a collect-control step must be built-in, followed by a postulated backend (BE) process step. Mirror-wise, a frontend (FE) step is required to obtain the necessary packaging materials. Philosophically and thermodynamically and in terms of information science, the situation at the backend is fundamentally different from that at the frontend. Both processes may be described in terms of converting, though.

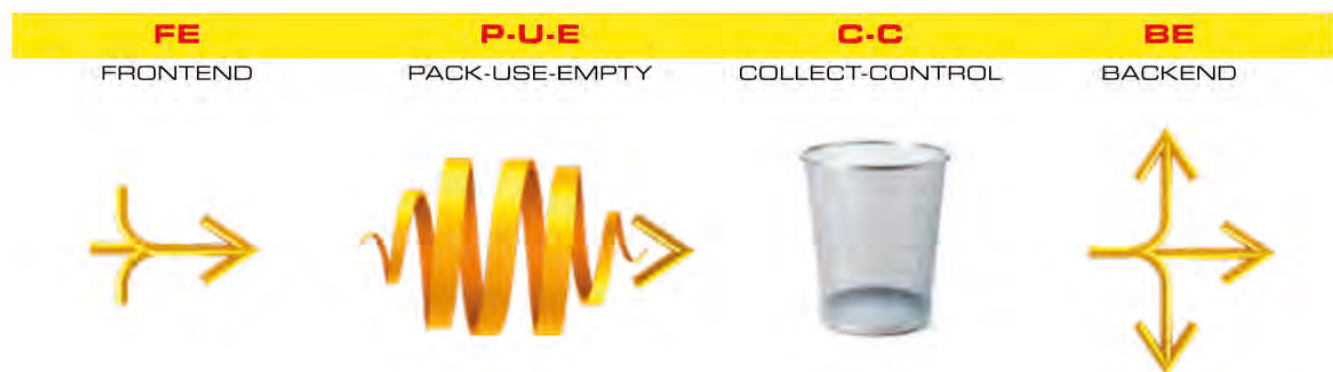


*Holistic innovation is needed as we are all interconnected in packaging*



## ADDRESSING THE ENVIRONMENTAL ISSUES

Environmental issues may come and go, depending on the many different interactions between our human activity and planet earth. Whereas the PUMA model remains unchanged, its application to environmental issues may vary in the course of time. In this first edition of the PUMA Manifesto we focus on litter, CO<sub>2</sub>, and (inadequate) pack optimisation. These three issues are deemed to be the most important in the current environmental packaging debate. The resulting table serves as the basis for addressing (future) environmental issues adequately.



	FE	P-U-E	C-C	BE
Litter			✓	
CO <sub>2</sub>	✓			✓
Inadequate pack optimisation Product Packaging material + Total environmental impact				
Future issues	✓	✓	✓	✓

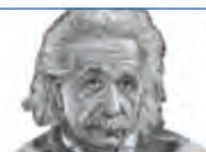




# SUPPORTING PUMA



*Success comes from deeper understanding and supplementing earlier insights*



## I SUPPORT THE PUMA MANIFESTO AND HEREBY PLEDGE TO:

- ✓ Reference the PUMA Model as an insightful source to address the activity of packaging worldwide
- ✓ Apply the vocabulary as used in the PUMA Model and positively contribute to possible improvements
- ✓ Contribute to the PUMA annual plenary meetings to the best of my capabilities
- ✓ Make my decisions and base my opinions on the state-of-the-art in packaging (i.e. on reliable, verifiable and up-to-date information) and using all information and knowledge that is brought to my attention
- ✓ Stimulate continuous education and training of those with a responsibility within the activity of packaging
- ✓ Contribute to helping facilitate all phases of PUMA (FE, P-U-E, C-C, BE)



*Everything flows and so does the activity of packaging;  
we can put a clock back, but not the time*



## MY DETAILS:

Company name

Initials and surname

Date of birth

Address

Phone

E-mail

**For an overview of recent references and background information worldwide please visit [www.nvc.nl/puma](http://www.nvc.nl/puma)**





# Made in Italy in favour of Ukrainian food processing

**U**kraine is one of the countries that, since the beginning of 2020, has most increased the volume of imports from the European Union. This is revealed by the latest report on trade in agricultural products prepared by the European Commission. Defined for centuries the granary of Europe, Ukraine is famous for having one-third of the richest soil in the world and for being among the top ten major producers of soft commodities. These are considerations not to be underestimated when you start thinking about internationalization.

Choosing this country as the recipient of an export action in the food processing sector, means contributing to the development of the mechanization of a territory with a strong agricultural vocation, in which definitely stimulating scenarios are outlined and in which there is huge space for Italian exports' placement. In fact, the Made in Italy of food processing offers highly innovative systems and pioneering equipment, able to meet the needs of Ukrainian SMEs, always looking for Italian business partners, also facilitated by an important and consolidated import-export, which is constantly growing. We recall that there are more than forty types of products meant for the food processing industry in Ukraine, including the sector of processed vegetable oils, vegetable and fruit processing, with the production of tomato and apple concentrate, flour products, confectionery and dairy products. From all this, a high demand for food processing equipment and machinery comes, which some Italian entrepreneurs have already begun to fill, gaining benefits. According to data provided by the Ukrainian Statistics Service, Italy is in first place for the supply of dryers. Currently, most of those used in the country are obsolete and do not cover the needs of Ukrainian users, so the market will be increasingly receptive to such facilities. This is also true in the agri-

cultural machinery sector, in which local producers point out the lack of new technologies. For this reason, the need for these tools is met by imports, in which Italy ranks fourth as a supplier. The opportunities that arise from this scenario are therefore several and push more and more Italian companies to approach Ukraine, but a failed planning of a correct strategy of action does not always lead to the achievement of the fixed goals.

For years, the Italian Chamber of Commerce for Ukraine has supported companies in establishing business relationships with companies in the country of destination and promotes informed internationalization







processes. For 2021, the Chamber Institution has designed the Food Processing Ukraine program which, in addition to training through a course about internationalization of sales, aims at three main goals, which mark the phases of the project: promotion, web contact and definition. Subscription to an online platform by all participating companies will be a window for the products and services that will be internationalized. It will give business managers the opportunity to get in touch with Ukrainian realities with whom they will be able to dialogue, maximizing the opportunities of concluding business, thanks to the online trade expo, which will be held from 2nd to 5th March 2021. Four days in which participants will be engaged in enjoying B2B meetings, conferences, exhibitions and seminars, just like they did at physical expositions. This event will open doors to following digital events with the aim of providing entrepreneurs with right tools for achieving success. With the arrival of summer and the hoped decrease in infections, the Chamber of Commerce will be happy to guide the protagonists on a business mission in Ukraine, with personal meetings with the companies with which they have come into contact in the preliminary phases of the project: the deserving conclusion of this rich program. 🏠





FreshSAFE packaging concept for equilibrium atmosphere packs

# EXTENDED SHELF LIFE FOR DELICATE NATURAL PRODUCTS

**F**ruit and vegetables continue to live after harvesting. If the product is to re-main fresh and appetising in the pack up to the point of consumption, the metabolic processes must be controlled by an innovative method. Thanks to the FreshSAFE packaging system from MULTIVAC, there is a method of producing equilibrium atmosphere (EMAP) packs, which optimises the oxygen content in the packs in a continuous, natural and sustainable way. Les Maraîchers d'Armor, a cooperative in the French region of Brittany, uses the technology to pack its white beans, the so-called "Cocos de Paimpol", in trays under modified atmosphere, enabling the shelf life and quality of the product to be preserved for as long as possible.

Les Maraîchers d'Armor is a cooperative situated in the heart of the vegetable growing area of Les Côtes d'Armor.

More than 420 gardeners, operating in the north west corner of Brittany, cultivate over 80 types of vegetables as well as strawberries and other fruits, and the annual production quantity is around 175,000 tons. In conjunction with two other cooperatives in Brittany, the products are marketed under the well-known label of "Prince de Bretagne".

## **Cocos de Paimpol – well-loved and very delicate**

Around 200 producers concentrate on the cultivation and propagation of white beans, which are marketed under the name of "Cocos de Paim-



pol". These yellow and violet-flecked pulses with their egg-shaped seeds and delicately melting "bite" find their ideal growing conditions in the area between Paimpol and Tréguier. In 1998 the "Cocos de Paimpol" was the first fresh vegetable and the first Breton product to receive a special designation of origin, and several years later this be-came a protected product name.

"In order to be able to satisfy the demand from consumers for a ready to cook, "all-in-one" product, the idea was conceived in 2020 of packaging the Paimpol beans under modified atmosphere," explains Florian Josselin, who is responsible for new product innovations at the cooperative. "The challenge was to find a reliable packaging concept for a semi-

dry product, which alters extremely rapidly after harvesting."

The solution: FreshSAFE. This process involves pre-perforated films, or films per-forated mechanically on the MULTIVAC packaging machine itself, which ensure that a controlled oxygen permeability is achieved, and this can be matched ex-actly to the specific respiration characteristics of the particular fresh product.

The objective is always to maintain the most beneficial concentration of oxygen and carbon dioxide for the particular product. This equilibrium atmosphere (EMAP) is achieved through the interaction between the respiration of the product and the required permeability of the film. The FreshSAFE packaging system can be



produced on thermoforming packaging machines and traysealers as well as chamber machines.

### **T 600 traysealer with FreshSAFE microperforation system**

At Les Maraîchers d'Armor the T 600 is used, the smallest fully automatic MULTI-VAC traysealer that can be integrated into a line. This versatile and scalable model is suitable for packing small and medium-sized batches very flexibly, and it is particularly easy to operate thanks to its IPC06 machine control with touchscreen. The T 600 is equipped with the MULTIVAC FreshSAFE microperforation system, which automatically perforates the upper web during the packaging process. Thanks to the cost-effective needle perforation system, all current upper webs can be perforated to the individual permeability that is required.

In order to meet the requirements of Les Maraîchers d'Armor, the packaging line also included a TDS 300 denser from TVI, as well as a MDC drag chain in-feed system and direct web printer from MULTIVAC. The packs themselves consist of a board tray

and a transparent upper web, so that the consumer can see the freshness of the product at a glance.

### **Significantly extended shelf life thanks to FreshSAFE**

Due to the FreshSAFE microperforation system, the product retains all its sensory characteristics in the pack. It remains appetising as well as fresh, and its shelf life is significantly longer than products packed in other

types of packaging. This means that there is considerably more leeway in the supply chain, and this gives processors like Les Maraîchers d'Armor a better opportunity to market their high-quality but delicate natural products 🏡

[www.multivac.com](http://www.multivac.com)

**MULTIVAC**



# MAKRO LABELLING: TECHNOLOGY IN EVOLUTION ON THE SMALL AND LARGE SCALE



**M**odularity, flexibility and practicality are key concepts in a company whose strong point is technological innovation and development. This is what the market wants and this is what customers get from the Italian based Makro Labelling, international standard setter for industrial labellers in the beverages, food, detergent and pharmaceutical sectors. The thirty years' experience of its founders, a team of 90 people, a dense and well-organised sales network consisting of the branch offices Makro UK for the United Kingdom and Makro North America in Saint-Philippe (Montreal) for Canada and the USA, together with agents and representatives in the most important countries throughout the world, plus an impeccable assistance and spare parts service guarantee satis-

faction of every labelling need and constant expansion on all the most important international markets.

## **A range of labellers for production speeds of 1,500 to 50,000 b/h**

The range includes labellers able to process from 1,500 to 50,000 bottles per hour, applying up to five labels per bottle and available in wet glue, hot melt, self-adhesive and combined versions. For companies with limited production requirements, the **MAK 01, MAK 02 and MAK 1** labellers provide speeds of up to 12,000 b/h with mechanical or electronic rotation of the bottle plates. With special applications and able to cope with production speeds of up to 50,000 b/h, the **MAK 2, 3, 4, 5, 6, 7 and 8** labellers, on the other

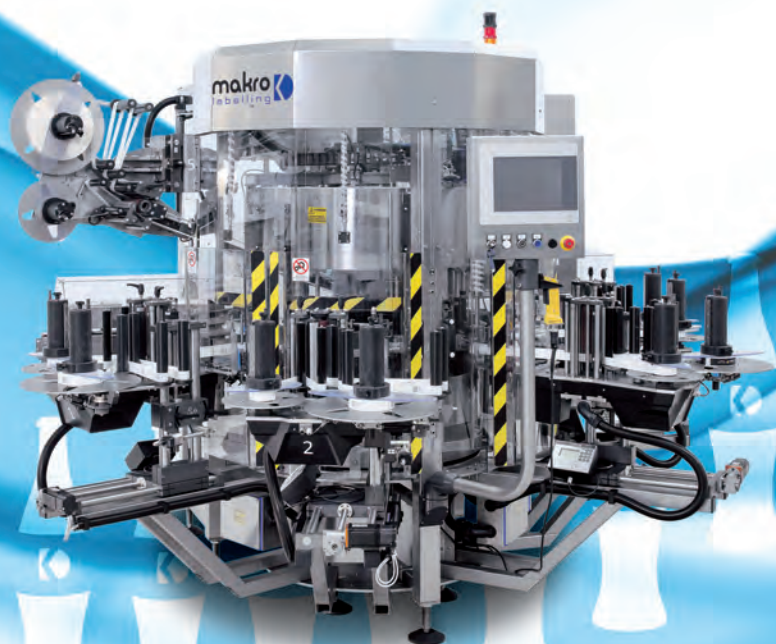
hand, satisfy the needs of medium to large companies. The range includes a high speed self-adhesive labeller with reel winders and non-stop system enabling production to continue at maximum speed even during reel changes and a combined labeller to apply the fiscal guarantee seal.

For the high volume PET market, such as the water and soft drinks sector, Makro Labelling has developed the **MAK Roll Feed** series of rotary labellers. The 6,000 b/h to 40,000 b/h production speed and use of wrap-round plastic labels on a reel with hot melt application guarantee maximum economic benefits in the production process. The modularity of the machine also allows the roll feed unit to be replaced with a hot melt unit for pre-cut, wet glue or self-adhesive labels. Again de-





## MODULARITÀ, FLESSIBILITÀ, PRATICITÀ



L'etichettatura nei settori beverage, food, detergenza e industria farmaceutica è da sempre la nostra passione e la nostra prima attività.

Tecnologie innovative, una rete internazionale di vendita e di assistenza post-vendita e flessibilità operativa sono i nostri punti di forza.

La soddisfazione di ogni esigenza di etichettatura da 1.500 a 50.000 b/h il nostro risultato, apprezzato da aziende di ogni dimensione.

Gli oltre ottocotocinquanta impianti presenti ormai in tutto il mondo la nostra conferma più grande.





signed for the water and soft drinks market, but needing between 6,000 and 16,000 b/h, the new series of **MAKLINE Roll Feed** labellers features motorised axles and brushless motors to minimise costs while maintaining meticulous labelling quality.

The new **double-station self-adhesive MAKLINE** is, on the other hand, designed for the beverages, food, detergent and pharmaceutical sectors. It packages large and small containers and offers the same high quality label-

ling as a rotary machine.

In common with the entire Makro range, the MAKLINE is fitted with the **Vision Control** system to verify the quality and correctness of the packaging and manage rejects. The **Follower** optical guide system (an exclusive patent) enables the bottles to be aligned for application of the labels in precise positions with respect to a reference on the bottle and reduces format change times and costs. It is available in carbon fibre and fitted with a line scan camera. Thanks to a special,

patented paper delivery system, the new **MAK AHS2** self-adhesive labelling module responds to the need for faster, more precise machines. It guarantees a linear speed of 100 metres a minute at a label pitch of 20 mm.

The technical and R&D departments monitor the market closely to understand its demands and anticipate them with new solutions able to offer efficiency, speed and a concrete response to specific labelling needs. Latest developments include the prototype of **C Leap, a new, truly revolutionary labelling system, and two new inspection systems** - **M.A.I.A.** (Makro Advanced In-line Analysis) and **A.L.I.C.E.** (Advanced Label Inspection and Control Environment) - which guarantee high performance, less production rejects and the highest finished product quality. 🏠

[www.makrolabelling.it](http://www.makrolabelling.it)





# MULTI-HEAD SEAMERS DELIVER MULTI-FORMAT

ZACMI seaming technology offers agility, flexibility and hygienic operation for the most demanding seaming applications

**Z**ACMI's multi-head seamers underwent a significant design evolution in 2019 and now represent the benchmark for can-seaming technology.

With over 350 units installed around the globe – backed by 35 years of market, product and process experience – the multi-head seamers can seam any type of rigid round can, and can do so quickly, effectively, efficiently and hygienically.

With agility at the forefront of operational demands of many plants, the machines can be installed standalone or mechanically/electronically synchronised with any kind of Filler. Offering fully automatic height adjustment, they are flexible enough to handle tin plate, aluminium, cardboard or plastic containers, applying a range of lid formats including open top, easy open and easy peel.

Their seaming system – controlled by a desmodromic cam – is available in 3, 4, 6, 8, 10 or 12 multi-head configurations, delivering a maximum output of 1600 cans per minute.

Fabricated from AISI 304 stainless steel, their strong structure removes all vibration, while also supporting a fully washable design, with an automatic base washing during production; a wash-in-place system, specially designed for beverage or difficult product applications; and the option for a CIP foaming cycle.



**ZACMI**®  
FOOD & BEVERAGE PLANTS



Sealed areas are also provided for the steam reduction group, the compressed-air reduction group, the electrical systems, the lubrication system and the CO<sub>2</sub> feeding system (for carbonated beverages); all of which are easily accessible from cleaning and maintenance.

As an option, Zacmi also offers its D.S.M. for seamers technology. This Double Seam Monitoring solution checks the cans' seaming performance in real time using special sensors mounted on the second operation cam. These record the force signal measurements and can detect – in real time – any potential out-of-range seaming operations, or can/lid defects, such as damaged flanges or foreign bodies between

the can body and the lid. The system offers data exporting, collection and result reproduction – even remotely – and the option for analysis by ZACMI technicians.

As well as detecting defects, by measuring the real force exerted on each seaming head, the D.S.M. technology can also be used for machine settings-regulation, ultimately helping to extend the service life of chucks and rolls.

Other innovations include: a centralised closed-circuit automatic oil lubrication system; a water/oil separation system, to prevent rusting and oxidation; an advanced lid feeding featuring lid guides with replaceable wear plates for quick and sim-

ple low-cost maintenance; corrosion resistant plastic drive chains; and a rapid seaming-pressure-regulation system, which removes the need to disassemble the plate from the outside.

The company's multi-head seaming technology is also available on a vacuum variant, both of which form part of the company's extensive portfolio of food packaging and processing technologies, which also includes piston, vacuum, telescopic and monobloc fillers and pasteurising technology. And with innovation at the forefront of the company's activities, you can be sure that new and improved technology is never far away with Zacmi. 🏢

**[www.zacmi.com](http://www.zacmi.com)**





**Pan American Packaging Corp.**

GERMANY - ITALY - SWITZERLAND

*Your best partner in packaging!*

[www.panamericanpackaging.com](http://www.panamericanpackaging.com)

[info@panamericanpackaging.com](mailto:info@panamericanpackaging.com)

# A NEW MANUFACTURING FACILITY IN SARDINIA FOR PAN AMERICAN PACKAGING ITALIA



**Pan American Packaging Corp.**

GERMANY - ITALY - SWITZERLAND

**A** new development for Pan American Packaging Italia. As part of the company's process of expansion, which is permeating European markets with special products in the field of stretch wrap and packaging in general, Sardinia now transforms from an ambitious project to a concrete reality. Furthermore, the selected industrial area of Macchiareddu, just outside of Cagliari, demonstrates a particular focus on the region, acknowledged with great satisfaction by the Regional Authorities, with the intent of contributing to the local recovery by relocating workers from the rubber/plastic industry who have been negatively impacted in the recent past by the offshoring of multinational corporations.

The industrial block extends across an area of approximately 82 km<sup>2</sup>, of which approximately 37 are occupied by manufacturing activities controlled by more than 130 companies. An excellent context within which to initiate commercial collaborations, given the cross-sector consumption of packaging products.

Antonello Morello, sole administrator, explains the group's strategy, which identified the Sardinia Region as a valid partner and strategic location for serving central-southern Italy and introducing itself to the emerging markets of Northern Africa. He also explains how the Sardinia Region alone, which currently has no local manufacturing companies in this



specific sector, has a need for packaging wrap that absorbs most of the production from Pan American Packaging Italia's new facilities.

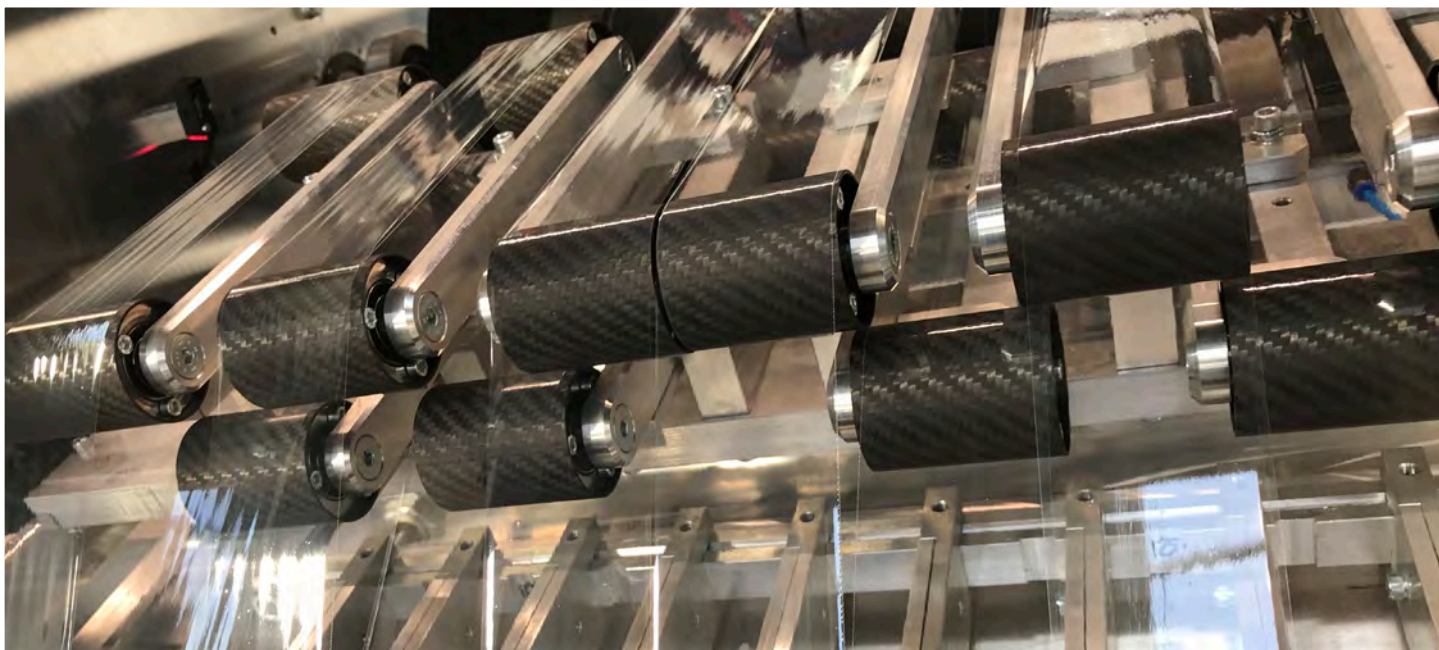
By moving its headquarters from the centre of Milan to Cagliari, while keeping its current manufacturing sites working at full capacity, the company has, with determination and enthusiasm, demonstrated its commitment to the southern expansion project.

In July, Pan American Packaging will move into the new warehouses, which have already been set up to accommodate the extruders and re-

winders that will be powered by solar energy by the local Sardinia Green Island consortium.

In addition to standard wraps the following will also be manufactured on-site: Eagle Force Stretch ribbed technical wrap, manufactured with a patented process that produces thick longitudinal bands, making the wrap exceptionally resistant to tearing and giving it an outstanding containment capacity, characteristics that make it particularly well-suited to the packaging of irregularly shaped products; Eagle Air Stretch macro-perforated ribbed wrap, specific to food companies, which meets the most various





ventilation requirements; sterilised wraps like the revolutionary Steril Stretch which drastically reduces bacterial and viral load, thus preserving products and people's health and adhering to increasingly stringent hygienic practices; Fire Shield Stretch flame retardant wrap, which is very useful in large warehouses for reducing the risk of fire and keeping the merchandise, structure, and personnel safe; Antirust Stretch wrap, also delivered in practical mini-rolls, to wrap and preserve metal profiles that are subject to oxidation; Fresh Fruit Stretch ethylene absorber, to make fruit ripen slower; and Green Leaf Stretch, a wrap featuring time-controlled decomposition for clients who wish to help reduce pollution caused by plastics accidentally littered in the environment.

Pan American Packaging Corp. has always focused on research, working hard to find innovative solutions aimed at producing avant-garde products with a conscientious and respectful use of plastic and providing high level services to its clients. The company continues to invest in research and, at its laboratories in Switzerland, certifications and other new developments are currently underway which will soon be presented

on the market. Thanks to this approach, the company was not caught off guard by the new challenges presented by this unique historic and economic moment, but rather got to work to create added value for its clients. It's because of these aspects

that the company is considered one of the most reliable and efficient players on the market in terms of service and post-sales. 🏢

**Visit the website:**  
**[panamericanpackaging.com](https://panamericanpackaging.com)**



# MONDI'S SUSTAINABLE PACKAGING HITS THE RIGHT NOTE FOR ORKLA'S NEW CLIMATE-SMART FOOD LAUNCH

- Mondi and Orkla work together to create sustainable packaging for Orkla's new Frankful® range of vegan, climate-smart taco products
- Soft tortilla wraps, tortilla crisps and taco spices are kept fresh with high-quality packaging that is kind to the planet and offers great shelf appeal
- Mondi's packaging solutions go beyond product functionality, helping Orkla to meet its sustainability targets for the new product launch

**M**ondi, a global leader in packaging and paper, has created three sustainable packaging products for a brand-new range of vegan products from food manufacturer Orkla.

The branded consumer goods company worked closely with Mondi to create sustainable, high-performance packaging for the Swedish launch of its Frankful® plant-based Tex Mex range - soft tortilla wraps, tortilla crisps and taco spices.

Each bespoke packaging solution has been designed to provide premium product freshness for consumers and ensure a stand-out appearance on the shelf for retailers.

Using a truly collaborative approach, Mondi supported Orkla's sustainability agenda, which includes launching healthier food products, reducing food waste and offering environmentally-friendly choices.

The three Frankful® products benefit from tailor-made packaging that







works for the products, the customer and the environment.

The challenge with Frankful® was to find a solution that would ensure recyclable packaging materials while offering the required functionalities such as barrier protection, and still run on the existing machines at full speed.”

Åsa Gisell, Marketing Manager at Orkla Foods Sweden, added: “As a market-leading consumer goods company distributing across the Nordic region, we are committed to meeting the UN’s sustainable development goals – and as responsible sourcing is a key point in our strategy, Mondi has provided invaluable support to create improved sustainable packaging.

extends shelf life, balances portion control and is recyclable.

- Original soft tortillas will be one of the first food products to be packaged in Mondi’s innovative BarrierPack Recyclable, which uses a high-barrier, lightweight mono-material and a reclose tape to keep the food fresh in its original packaging and prevent waste.
- Taco spice mix is packaged in a paper-based laminate, created from FSC™ certified paper and a film made from renewable resources. The high paper content ensures suitability for Swedish recycling paper streams.
- Tortilla crisps are kept crunchy and fresh, thanks to Mondi’s metal-free high-barrier laminate, which makes the new solution completely recyclable.

It eradicates the need to include a metallised layer while retaining crispness and avoiding grease leakage.

Thomas Kahl, Mondi EcoSolutions Project Manager, said: “Our aim is to work closely with our valued partners through our customer-centric approach, EcoSolutions, in order to create sustainable packaging that

The Frankful® range offers consumers fresh, climate-smart Taco meal products that look good and of course, taste delicious.” 🏠

**Visit:**  
**[www.mondigroup.com](http://www.mondigroup.com)**



# OMAG, TECHNOLOGY AND FLEXIBILITY IN SINGLE DOSE

**O**mag is an Italian company that has been designing and manufacturing packaging machines for powdery, granular, liquid and pasty products in 3 and 4 side sealed sachets, stick-packs and doy-packs for over 45 years. Omag was founded in 1973 and today counts over 120 employees and its export business accounts for 70% of the turnover.

The company has three production plants: one entirely dedicated to the production of components (about 65% is produced internally) and the new headquarters of over 6000 square meters where mechanical and electronic design, machinery assembly and testing take place.

International sales network and, thanks to agents and distributors, a global presence, which is also supported by two foreign sales offices in Russia and Ukraine, directly managed by founding partners.

## Our products

All Omag sachet and stick packaging machines can be manufactured on a variable number of rows, equipped with different dosing systems, combined with robotic counting units and cartoning machines and can be completed with different options such as batch number and expiry date printing, check weighers, etc.

Our main characteristics are certainly quality, sturdiness, design and

reliability and they can be found in all our packaging machines, but the key attribute that set us apart is the **flexibility**.

In our business there are no machines built in series: each machine is designed ad hoc, tailor-made according to customer's objectives and requests.

At the base there are highly technological machines able to meet our customers' needs, also through robotized systems and each machine is different from the other. This is flexibility as we understand it, which, combined with passion and the desire to push ourselves higher and higher, has allowed us to get where we are today.







### Customer centricity

We do what we do best: we design and build high quality, high-tech machines with an essential design to ensure easy operation.

We pay great attention to our customers' needs, in fact it is fundamental for us to fully satisfy them not only during the sale phase but especially after the installation of the packaging machine. A well-structured after-sales office allows a **prompt assistance** to the customer also through on-site and remote interventions, training and training activities. We offer customer service and create a relationship of mutual trust that brings value to both.

We also support our customers in the pharmaceutical sector with the drafting of highly professional GAMP5 documentation packages that simplify the validation process of our machines.

### Innovation and Industry 4.0

From a technological point of view, in recent years we have focused on issues related to the opportunities offered by **industry 4.0 and energy saving**. In fact, all our models are now offered in a fully electronic version, guaranteeing flexibility and energy saving.

As far as industry 4.0 technologies are concerned, we use a series of software implemented on our packaging machines to comply with regulations in terms of traceability, safety,

quality and interconnection with company information systems.

In addition, thanks to remote control, our customers can request additional services that allow us to monitor and interact with packaging machines installed worldwide with real-time access to a series of functional data to diagnose their status and provide targeted assistance in case of anomalies. With the aim of ensuring increasingly timely service, we are developing artificial intelligence algorithms for **predictive maintenance**, i.e. the prevention of potential faults before they occur in order to avoid unexpected production downtime. We have also integrated augmented reality systems so that the customer, by framing the packaging machine with a smart device, can have immediate access to a series of data, user and maintenance manuals and analyse the status of the machine in complete autonomy. 🏠

[www.omag-pack.com](http://www.omag-pack.com)

**OMAG**  
Flexibility in Packaging



# ELMITI SRL

## ELECTRIC HEATERS



**W**e are a leading company in the design and production of electric heaters, which are available in standard or customized versions, according to customer request.

Since 1979, year of foundation, we have always been characterised by a stable growth that brought us to increase not only the national trade but above all the international trade. More and more often foreign companies turn to us to obtain Made in Italy products, in which they recognize the high level of quality and reliability. Besides quality our strong points are flexibility, that allows us to satisfy the most varied needs of the customer, as well as fast delivery times. They are around 3/4 working weeks for custom-made products and 3 working days for standard products.

Our tube diameter can be 16, 12.5, 10, 8 and 6.5 in different material such as mild steel, AISI 321, AISI 316 L and INCOLOY 800. Raw materials are all of European origin.

We are well integrated in many product sector and above all in the food processing industry.

### These are some of our main items:

- Electric heaters for cooking
- Electric heaters for pasteurization
- Electric heaters for sterilization
- Electric heaters for desiccation/de-watering of fruit and vegetable
- Electric heaters for smoking
- Electric heaters for washing and drying. 🏠

[www.elmiti.com](http://www.elmiti.com)





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# PNEUMAX S.P.A.

## COMPONENTS AND SYSTEMS FOR INDUSTRIAL AUTOMATION

Pneumatic components, electric actuation and fluid control

**F**ounded in 1976, Pneumax S.p.A. has become one of the leading international players in the field of industrial and process automation components and systems.

The company is at the head of the Pneumax Group made up of 23 commercial and production companies with over 730 employees worldwide.

The international network includes 7 branches in Italy, 8 branches in Europe in addition to branches in the USA, Brazil, India, China and Singapore, and a vast network of distributors that guarantee presence in over 50 countries.

All of the Pneumax Group's manufacturing facilities are located in Italy, the seven units in Lurano (BG) plus Titan Engineering in San Marino.

All the facilities comply with the environmental and workplace safety requirements set out in standards ISO9001:2008, ISO 14001:2004 and OHSAS 18001:2007.

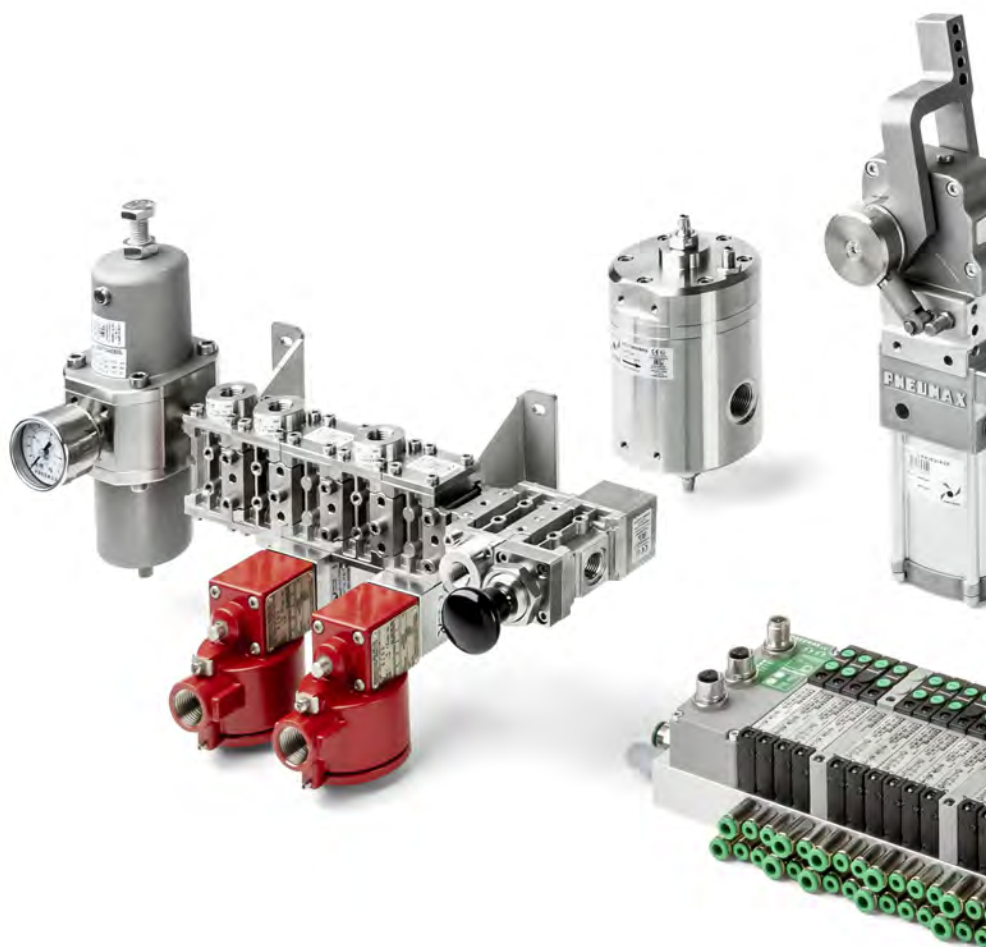
Continuous investment in research and development has enabled Pneumax to expand its offer by combining well established pneumatic technology (actuators, valves and solenoid valves, proportional technology, fittings, compressed air treatment, materials handling, vacuum), with electrical actuation and components for liquid and gaseous fluid control

and offering solutions made from different materials ranging from stainless steel to engineering polymers or from aluminium to brass.

The organisational structure designed to maximise flexibility and the use of cutting-edge technologies en-

sure maximum efficiency both for the supply of standard components and the creation of completely customised solutions.

At the same time, the development of mechatronic and digital expertise underlies the creation of integrated





systems which, thanks to enabling technologies, are capable of meeting the requirements of Industry 4.0, from component interconnection to the ability to remotely control and manage component performance, without ever neglecting aspects such as optimising consumption.

### FCM fittings

#### Food Contact Material

The food & beverage and food packaging sectors are two of the sectors for which the company offers specific products such as the entire range of stainless steel components (cylinders, valves and solenoid valves,

FRL, fittings) or FCM fittings which, in addition to ensuring reliability and high performance, comply with relevant international standards.

FCM fittings are suitable for contact with food and the passage of food fluids according to European Regulations (EC) 1935/2004, (EC) 2023/2006, (EC) 11/2011 and contact with drinking pursuant to Italian Ministerial Decree DM 174/2004.

The FCM series is made by Titan Engineering, a company of the Pneumax Group which has specialised for over 25 years in the design and production of fittings and connection components made of brass, engineering polymers or stainless steel for pneumatic circuits.





With regard to application, the FCM series fittings hold certifications not only for contact with food, but also for suitability for the passage of food fluids, a requirement certified by testing carried out according to precise specifications using machinery introduced during validation of Titan Engineering's production process, carried out in compliance with European Directive 2014/35/EU and capable of carrying out tests on the basis of the standards specified by UNI EN ISO 1386: 2001 and later.

The tests include all component materials, already compliant with FC (Food Contact) standards, as well as plastic parts in POM (polyoxymethylene) and IXEF 1022FC (polyar-

ylamide 50% GF) and metal parts in brass OT57 (CW510L with low lead content, NSF/ANSI 372 certified).

The certification guarantees component tightness under pressure, not only with drinking water but also with other food fluids such as wine, beer and beverages in general.

In order to guarantee maximum quality and reliability in the context of a

procedure set out in specifications under the new European Regulation (EU) 831/2018, now familiar to industry insiders as MOCA, the Pneumax Group has undertaken a validation procedure not only for its own production processes, but also for the entire supply chain to ensure compliance with the guidelines specified by the certification bodies. 🏛️

**[www.pneumaxspa.com](http://www.pneumaxspa.com)**



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# SIEMENS MAKES INDUSTRIAL DATA ACCESSIBLE AND ACTIONABLE



**S**iemens Digital Industries Software is leveraging the Mendix™ low-code application development platform to help customers across industries build contextual and personalized solutions and help enable data-driven decision-making processes. With the general availability of Mendix Data Hub and new Mendix for Industrial Edge services, Siemens can help customers achieve an end-to-end view of their plants, factories, and systems and provide domain experts with actionable insights through solutions that have been developed with the right data from across the organization. The Mendix platform extends the Xcelera-

tor™ portfolio with the ability to build multi experience apps and share data from any location, on any device, on any cloud or platform, to more quickly realize the benefits of digital transformation.

“Our vision at Mendix is not only to offer our customers a technology to let them develop applications faster and more efficiently, but to also extend Siemens’ Xcelerator portfolio to help realize unprecedented scalability and flexibility for our customers,” said Derek Roos, Mendix CEO. “As part of Siemens, we are expanding the Mendix platform to help provide value to our industrial customers by enabling

them to get value from their data, be that on a factory floor, across systems of record, or in a field service context.”

## **Enabling Data-Driven Decisioning on the Factory Floor**

A key goal for digital transformation is factory automation, which can be slowed down by distance - both physical and organizational - between operational technology (OT) and organizations co-located at factory locations, and IT organizations housed at corporate headquarters. The new Mendix for Industrial Edge platform, announced today at Mendix World Version 2.0, empowers factory operators to create custom applications on



# New services enabled by the Mendix low-code platform enable data-driven decision making in factories and across enterprise data sources



the Mendix low-code platform that run locally as Edge Apps to collect data, have access to insights in near real-time and provide optimal user experiences to a variety of end users. The Mendix low-code platform is designed to abstract much of the complexities and expand the talent pool for IoT application development, further empowering OT leaders to address their most pressing issues with limited IT intervention. Business developers, domain engineers and plant operations staff can now create Apps for Siemens Industrial Edge without programming skills. When combined with Siemens' MindSphere®, the industrial IoT as a service solution from Siemens, and

other Xcelerator cloud solutions, customers can quickly realize the benefits of a completely integrated edge to cloud experience.

## **Unlocking, Extending, and Personalizing Data from Core Systems**

Disparate legacy systems, containing data in various formats and heritage that supports complex physical models can challenge companies in providing developers and engineers secure access to the right data. To help organizations discover, understand, use, and curate data from across the enterprise, and employ it in software development, business intelligence, and other data-rich applications, Sie-

mens announced availability of the Mendix Data Hub. In conjunction with the Mendix low-code development platform, the Mendix Data Hub can help organizations realize a dramatic decrease in application delivery time, as developers no longer waste time searching for the right data, seeking the right data owner, minding API calls, and securing access to the data they need.

Initially, the Mendix Data Hub will connect to the most common industrial data sources, such as Teamcenter® software and SAP, with future releases expanding support for other common data services and databases, and industry-specific applications. The Mendix Data Hub can also be extended by eQ's eQube® Data-as-a-Service, as part of a newly expanded partnership between Siemens and eQ Technologic, with a rich set of over 60 smart connectors, providing support for industrial data and system integrations.

Siemens Digital Industries Software is driving transformation to enable a digital enterprise where engineering, manufacturing and electronics design meet tomorrow. The Xcelerator portfolio helps companies of all sizes create and leverage digital twins that provide organizations with new insights, opportunities and levels of automation to drive innovation. For more information on Siemens Digital Industries Software products and services, visit [www.sw.siemens.com](http://www.sw.siemens.com) or follow us on LinkedIn, Twitter, Facebook and Instagram. Siemens Digital Industries Software – Where today meets tomorrow. 🏭

# SIEMENS

**FOOD**  
processing

# DIGITAL SOVEREIGNTY GOES HAND-IN-HAND WITH SECURITY



**D**igital sovereignty – it's not a new term, but one that is becoming more and more prominent in the daily news cycle. Digital sovereignty refers to the ability to have control over your own digital destiny – the data, hardware, and software that you create and rely on.

The quest for digital sovereignty is a goal shared by companies, public authority stakeholders, and, more recently, Internet users, citizens, and consumers.

From a nationalistic perspective, digital sovereignty refers to a country's ability to act independently in the

digital world when necessary. However, the notion is complicated by the fact that the digitization of society is without borders, and no country, let alone a single company, can be an island and separate itself from the dynamic events of today's connected world economy.

For example, when the global economy shut down during the pandemic, vulnerabilities in production strategies and international supply chains were exposed.

Temporary trade restrictions and work stoppages created shortfalls





in pharmaceuticals, critical medical supplies, and many other products. At the same time, ransomware attacks are growing into a highly successful and profitable industry.

In a recent incident, a supply chain ransomware attack on the information technology company, Kaseya, infected more than 1,500 different organizations on 5 continents.

This particular hack used managed-service providers to spread its disruption indiscriminately through a huge network of smaller companies around the world.

The challenge for digital sovereignty proponents is clear: There can be no digital sovereignty without security, but that security cannot be addressed only in terms of building singular data silos or patching vulnerabilities.

Instead, it must be an evolving, open, and multi-disciplinary effort. It requires the commitment to keep pace with ongoing developments globally to be sovereign and secure at the same time.

Wibu-Systems, pioneers in software protection, licensing, and security, has long understood the necessity for digital sovereignty and security to run in parallel.

On one hand, regional and national resources and expertise need to be strengthened to be able to enforce one's own standards.

On the other hand, mutually beneficial collaborations with other global stakeholders are required to address the associated security risks.

It can be a difficult task, as security in and unto itself is not a finished product that you can build and then take to market. Instead, it is a process: An evolving technological solution to evolving technological threats. It can



never rest and requires constant attention and maintenance.

In any case, for IT security to be a genuine part of digital sovereignty, it must remain an open and collaborative community effort.

Out with the old and in with the new: The digital industrial revolution (aka Industry 4.0) is ushering in an age of new forms of manufacturing-as-a-service with smart, connected, and agile production processes.

Hence, it also brings with it vulnerabilities to new threats and new attack vectors.

Wibu-Systems has long played a leading role in powering the rise of the industrial IoT and connected industry and has been supplying the world with both industry-grade versions of its protection hardware Cm-Dongles, with formats ranging from classic USB dongles to integrated ASICs, as well as a dedicated version of its CodeMeter solution for the embedded systems that make up the

backbone of the industrial and non-industrial IoT.

Wibu-Systems is also contributing substantially to new standards and concepts for a secure connected world, including pioneering work on new ideas of trustworthiness and chains of trust in digital enterprises.

Many of these projects enjoy financial support from EU or German federal sponsors and are pursued with high-profile research institutions like the Fraunhofer Society: A clear sign that politics, academia, and industry have grasped the importance of home-grown digital and security expertise for digital sovereignty on a national, EU-wide, and even global level. 🏛️

[www.wibu.com](http://www.wibu.com)

**WIBU**  
**SYSTEMS**



# Starlinger delivers its first bottle-to-bottle plant to Turkey

## The food-grade PET recycling system will be supplied to rPET flake producer BaĐatlı in April 2022

**T**he recoSTAR PET 215 iV+ will be Starlinger's first bottle-to-bottle recycling system operating in Turkey. It is equipped with one of the biggest extruder sizes that Starlinger recycling technology is currently building and produces up to 2,400 kg food-safe rPET per hour. The evaluation of the project by the European Food Safety Authority EFSA is currently underway.

"BaĐatlı is one of the pioneers in PET bottle-to-bottle recycling in Turkey. We are happy that they have chosen PET recycling equipment from Starlinger for their ambitious project", says Paul Niedl, Commercial Head of Starlinger recycling technology. "With this investment,

BaĐatlı contributes significantly to establishing a PET bottle recycling system in Turkey."

Founded in 1953, family-owned BaĐatlı Boru Profil San. Tic.A.Đ. is a producer of industrial steel pipes, hollow sections and sheets located in Kocaeli Province. The company entered the PET recycling market in 2019 and produces PET flakes from bottles and post-consumer waste. The rPET flakes are used in non-food PET packaging, fibers and strapping production. The food-grade rPET pellets processed with Starlinger's FDA, EFSA and brand owner-approved recycling equipment will be supplied to the bottle-to-bottle industry for preform production.



Bottle-to-bottle recycling is taking root in Turkey





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The logo for Koelnmesse, featuring a stylized green and orange graphic of dots and lines above the word "koelnmesse" in a lowercase, sans-serif font.

# ISOLCELL FOOD-GRADE NITROGEN GENERATORS: FROM PIONEER TO INTERNATIONAL PLAYER

Isolcell solutions are highly customized, reliable, and always at the top of the technology available today

**O**ver 60 years of experience

Since 1958 Isolcell has been designing and manufacturing plants that exploit controlled and generated atmosphere technology. Isolcell was the first company in Italy to develop this method of food preservation, later extending the use of its nitrogen generators to other production sectors. It is recognized as a world leader and is part of an industrial group headed by Finanziaria Unterland SpA.

Isolcell is present worldwide with a network of distributors and resellers, operates according to the highest quality standards and its product range complies with the most stringent European and international directives.

## On-site nitrogen production, sustainable productivity

The air we breathe consists of 78% nitrogen, 21% oxygen, 0.96% argon, and 0.04% carbon dioxide, plus other components. Nitrogen is an inert gas that lends itself to a multitude of uses. Over the years, we have invested considerable resources to study the application possibilities and make them easily available to companies. Traditional supply methods such as high-pressure cylinders or liquid nitrogen tanks create disadvantages for companies. Transport and rental costs, delays in external

supply, the need to have a dedicated and delimited space, safety controls, and maintenance... all result in significant costs that are not always predictable. These factors have pushed Isolcell, for some time, to study an alternative system, more economical,

functional, and ecological: the self-production with the use of nitrogen generators.

**Isolcell generators: nitrogen right now, simply**

The traditional methods of nitrogen

# Isolcell

CONTROLLED ATMOSPHERE SINCE 1958





distribution, especially in the last 15 years, have been gradually replaced by autonomous generators. This has resulted in clear advantages for companies. First of all, they can count on a constant and punctual supply that does not depend on external sources. Moreover, they can achieve significant savings, cutting the costs of other types of supply. They can also operate with simplicity: just one click is enough to produce the necessary quantities of nitrogen on-site, in total safety and with the desired purity.

### Food grade nitrogen

Nitrogen is classified as a food additive when it comes into direct contact with food.

The abbreviation identifying food nitrogen is "E941".

In the European Union, a specific directive indicates the minimum requirements for the use of this gas as a food additive.

Isolcell's nitrogen generators with PSA technology can supply nitrogen in full compliance with the parameters indicated by this directive.

**Benefits:** Nitrogen in the food industry is used to maintain the original organoleptic and nutritional characteristics of packaged food products. Modified Atmosphere Packaging (MAP) involves the use of nitrogen, carbon dioxide, and oxygen mixed in optimal percentages to meet the preservation requirements of various food products. These gas mixtures slow down the aging process, preserving color and taste with freshness.

Nitrogen is generated only on demand (stand-by function).

From 0.25 to 0.39 Euro per M3 of nitrogen produced, depending on the purity delivered. Amortization of the generator cost normally in less than 24 months.

The choice of high-quality molecular sieves combined with an automatic filling system specially designed by Isolcell technicians allows to limit to a minimum the maintenance inter-

ventions on the generators and eliminate costly reintegration or replacement of molecular sieves which, in optimal conditions, have a life of more than 50,000 working hours.

### Nitrogen generators Isolcell PSA NIMOS NL

Isolcell PSA NIMOS NL nitrogen generators are more efficient, quiet and easily expandable, compact, and with an essential geometry to ensure easy access to all pneumatic and electronic components.

The components that constitute the NIMOS NL generators, including the design of the machines, are designed and manufactured with the latest technologies and are the result of more than 12 months of work at the plant in Laives (Bz) by the technicians of Isolcell's Research & Development Division, followed by a long series of field tests carried out at some historical customers. Numerous international trademarks characterize a series of nitrogen generators destined to be the point of reference for many years.

The product range, the widest currently available on the market, consists of 2 series of machines able to cover the needs of most industrial applications:

- NIMOS NL PSA M Series for low flow rates, from 0.5 to 33.7 Nm<sup>3</sup>/hour, compact but with the same reliability characteristics as the larger models.
- NIMOS NL PSA S-D Series for medium and large flow rates, from 3 to over 5000 Nm<sup>3</sup>/hour.

The design of the Isolcell PSA NIMOS NL S and D nitrogen generators minimizes space requirements and allows nitrogen flow rates from a few liters per minute to thousands of cubic meters per hour.

Thanks to the modular design, you can expand your production capacity by adding additional columns or new modules. It will therefore be




possible to exploit the advantages of a "Multibanking" system capable of optimizing work cycles and energy consumption.

All Isolcell nitrogen generators are equipped with a residual oxygen analyzer which, in addition to measuring and displaying the residual oxygen value, controls the correct operation of the generators, guaranteeing the production of nitrogen of quality perfectly compatible with your needs.

The operating parameters of the generators are displayed on a 5" color touch screen.

### ISOLCELL WEB SERVER INDUSTRY 4.0

The new N2 Industry web server designed and developed by Isolcell is a remote control system dedicated to data collection, remote control, monitoring, and diagnosis of Isolcell's ON-SITE nitrogen production plant.

The N2 Industry web server removes all restrictions on the distance between the user and the system. Remote control access is possible via computer, smartphone, or tablet. 

[www.isolcell.com](http://www.isolcell.com)

# SOLVE FERMENTATION CHALLENGES THROUGH APPROPRIATE VALVE SELECTION

By Rodolphe Karpe, Product Marketing Manager,  
Fluid Control and Pneumatics, Europe at Emerson

**W**ith the explosion of craft beers, demand for new wine blends and rise of international distilleries, the alcohol business is booming. This proliferation has given consumers more choices than ever and expanded the alcoholic beverage market both regionally and around the world.

Whether you're a small-town brewer, boutique winemaker or multimillion-dollar global brand, it's essential that your products maintain the same high levels of quality and taste to keep up with demand, despite such variability.

The secret to meeting customer expectation every time lies in your fermentation process. To ensure quality, consistency and taste across various beverage styles and flavors, the fermentation process requires exact temperature control. To precisely control heating and/or cooling parameters, control tanks must be equipped with the right valve system.

Too often, valves experience short service lives and other performance issues that can cause temperature fluctuations — compromising beverage quality and costing precious time and money.



The fermentation process in the beverage industry requires precise temperature control



## Common Obstacles Make Tank System Upgrades Difficult

Alcoholic beverage producers typically control tank temperatures, and therefore the fermentation process, using glycol or ammonia systems.

Depending on your system, it's also important to select valves that are rated to handle the appropriate medium.

In propylene glycol systems, for example, this nontoxic liquid medium flows through thermal jackets surrounding the fermentation tanks. In

a closed circuit, the glycol is pumped through and cooled in a chiller before it flows back down through the jackets. The chilled glycol then cools the tanks and their contents.

Because fermentation is such a vital process, it's no surprise beverage makers look for opportunities to install or upgrade their tank cooling and heating systems. But these modifications aren't without their challenges. Many facilities, particularly smaller operations, have limited physical space.

As a result, tank systems need to be positioned as close as possible to each other to maximize floor space and remain accessible during maintenance — making innovative yet costly tank designs a necessity.

Other challenges include:

- **High energy costs.** Energy is one of the largest overhead costs in the food and beverage industry — including alcoholic beverage production. Because fermentation is considered a wet environment, beverage makers also need to have additional electrical safety features in place.
- **Extensive installation and maintenance.** Depending on the size and number of tanks, the labor required for piping and wiring can be costly and time-consuming. In addition, maintenance and upkeep become all the more complex — increasing potential downtime.



- **Possible product loss.** For wineries, in particular, any issues that compromise batches during extended fermentation periods equate to several years' worth of lost time, materials and cost.

In addition to ensuring precise temperature control, proper valve selection can address the challenges associated with installing, maintaining and upgrading fermentation heating and cooling systems.

By choosing the right valves, you can save equipment space, conserve energy and optimize productivity.

## How To Select Valves That Overcome Fermentation Challenges

Whether you're spending too much time on piping or you're a startup operation with limited resources and space, Emerson can help you select the right fluid automation product to meet your unique needs. In addition to their reliability and durability, our products provide the industry's longest expected service life — maximizing your uptime during every precious minute of the beverage-making process.

Choose from the following valve solutions, all of which are suitable for systems using glycol or ammonia:

**Two-Way Valves.** Two-way valves are a traditional, tried-and-true valve type for fermentation heating and cooling systems.

These high-flow solenoid valves come in a range of pressure ratings, sizes and resilient materials like brass or stainless steel — providing long service life and low internal leakage. Many feature low electrical consumption and are mountable in any position — boosting their installation flexibility in tight or limited configurations. Look for an IP65 rating for use in fermentation and other wet environments.



IP washdown solutions eliminate contamination and protect components from corrosion that may cause downtime



High-flow solenoid valves, such as the ASCO Series 8210, provide long service life and low internal leakage in heating and cooling systems



**Solenoid Valves.** Solenoid valves include several electrical enhancements that achieve even greater energy savings and longer service life.

Look for valves that incorporate power management circuits, as well as electrical surge suppression to both the solenoid and electronic controls. These features result in energy savings that can lower your total cost of ownership by 14 percent.

In addition, these valves accept both AC and DC voltages without sacrificing flow or pressure specifications, increasing DC performance up to 500 percent by today's industry standards.

Because the valve's DC characteristics now rival AC pressure and flow values, you can eliminate AC output cards to simplify control, reduce wiring costs and provide safer working environments for DC users.

Solenoid valves also eliminate the hum associated with AC voltage and have expanded AC and DC operating temperatures. They also extend product life through low solenoid temperature rise, and they meet UL, CSA and CE approvals and RoHS 2 compliance.

**Angle Seat Body Valves.** Air-operated, direct-acting angle body seat valves are ideal for aggressive and high-viscosity fluids. Many models feature a straight-through design and wide range of advanced options, including a signaling box, compact positioner for proportional control and stroke limiter.

These valves are the preferred alternative to diaphragm and ball valves. They allow tight shutoff in both directions and contain no bleed holes, eliminating the chance of glycol plugging and the possibility of related tank temperature fluctuations. They are also one-third the cost of

ball valves and last up to 10 times longer. Many angle seat body valves are designed to handle back pressure, eliminating the need for check valves, and feature a rugged, stainless steel body that resists sulphur vapor in processes like winemaking.

#### **Automation Further Improves Temperature Control**

In addition to proper valve selection, it's important to consider automating your fermentation heating and cooling systems to achieve even greater thermal precision. For example, the G3 Electronic Fieldbus Platform makes this process quick, simple and painless. G3 integrates communication interfaces and input/output (I/O) capabilities into your pneumatic valve manifolds, which enables your PLC to more efficiently turn valves on and off, as well as channel temperature data from resistance temperature detector (RTD) sensors. Compact and modular, G3 includes a range of in-

novative features to enhance your fermentation operation, including a graphics display for easy commissioning and fault diagnosis, as well as compatibility with a range of industrial communication protocols, including Ethernet, PROFINET, DeviceNet and many others.

The right valves in combination with the G3 automation platform provide a single solution that overcomes many of the challenges preventing alcoholic beverage makers from installing, expanding or upgrading their fermentation systems.

In addition to saving space, conserving energy and improving critical uptime, this combination delivers the peace of mind that comes with knowing your beverages — no matter the style, flavor or blend — are achieving only the highest levels of quality, consistency and taste. 🏭

[www.emerson.com](http://www.emerson.com)



The ASCO Series 290 is a pressure-operated, direct-acting, angle seat-body valve built for demanding applications such as fermentation



# Food grade plastic packaging

**N**estlé Mexico, Greenback and Enval are to install the first plant in Mexico to achieve full circularity of food grade plastic packaging.

- In the first phase, the project will process up to 6,000 tons of flexible plastic packaging in year one.
- Nestlé Mexico is the first consumer goods company in the country to back the circular economy by guaranteeing access to recycled food-grade plastics.

Nestlé Mexico announced the signing of an agreement, the first outside Europe, with the UK company, Greenback Recycling Technologies, to install a chemical recycling plant capable of processing flexible plastic packaging. This will address the challenge of post-consumer plastic waste that is difficult to recycle in the country, thus contributing to promoting a circular economy.

The plant will employ an innovative microwave-induced pyrolysis technology developed by Enval, a UK chemical recycling company, to transform valueless plastic packaging into pyrolysis oil that can be used in the petrochemical industry to manufacture new products with post-consumer recycled content. Enval's technology is unique in that it also allows the recycling of aluminum from ultra-effective but hitherto impossible-to-recycle packaging.

The ambitious project will enable circularity of up to 6,000 tons of flexible plastic packaging in the first year, with expected sustained growth in both volume and installed capacity in the country. In addition, Nestlé will be investing in the adaptation to the Mexican waste ecosystem and market of Greenback's eco2Veritas Circularity Platform, which provides complete traceability of the neutralisation and recycling process.

"Making safe recycled plastics for food packaging is a huge challenge for our industry. Therefore, in addition to minimising the use of plastics and collecting waste, we want to close the loop and make more plastics infinitely recyclable. This project with Greenback and Enval fully supports the mission of ensuring that our plastic packaging is not only recyclable, but actually recycled; it ensures that we are drastically reducing plastic waste pollution and supports our work with lo-



# Nestlé

Good Food, Good Life

cal communities," commented Fausto Costa, CEO at Nestlé Mexico.

The Swiss company's alliance with the advanced recycling technology companies (focused on certified circular solutions for packaging waste) is part of the objective of reducing its plastic footprint in the environment and continuing the path towards the goal of achieving a waste-free future.

Philippe von Stauffenberg, founder and CEO of Greenback, said: "This project in Mexico will tackle the unresolved problem of turning multi-laminate and mixed plastics that are difficult to recycle into a recyclable waste stream. The aim is to reduce the challenges that exist in packaging recycling, transforming these waste resources into pyrolysis oil that can be used for the manufacture of certified recycled food packaging."

Carlos Ludlow, founder and CEO of Enval, commented: "This collaborative project with Nestlé Mexico and Greenback shows the importance of teamwork between companies from different parts of the value chain in facing the challenge of plastics in the environment. At Enval, we know that plastics are not the enemy but are materials that improve our lives but must not end up as pollution. We are very pleased to know that our first plant, in collaboration with a company as recognized as Nestlé and in partnership with Greenback, will soon be operational in Mexico."

In April 2021, Nestlé Mexico became the first company in the country to neutralise all the equivalent plastic from its post-consumer waste, on a voluntary basis. With this new agreement, the world's leading company in Nutrition, Health and Wellness endorses its commitment to make use of innovation and technology to move from virgin plastic to recycled food-grade plastic, in line with the vision of finding effective solutions to prevent its packaging from ending up in landfills or as garbage.





# NEW ISHIDA X-RAY OFFERS ENHANCED SENSITIVITY FOR DIFFICULT TO DETECT ITEMS

Ishida Europe is launching its next generation IX-G2 dual energy X-ray inspection system which offers significantly enhanced sensitivities for the detection of low-density and difficult to spot foreign bodies, including bone.

The Ishida IX-G2-F incorporates a new line sensor that provides a high-quality X-ray image through an enhanced signal to noise ratio which has increased the ability to detect bone fragments by a factor of four compared with previous X-ray models. This further increases the ability of the machine to identify contaminants, in particular when handling thicker and denser products such as chicken fillets, chicken breasts and a wide range of poultry products where they can often be overlapped or presented with uneven surfaces.

The enhanced sensitivity of the machine also greatly reduces the risk of false detections, which helps to maximise throughput and avoids the costs associated with unnecessary waste and the repacking of products.

The high performance of the IX-G2-F is supported by Ishida's unique self-learning Genetic Algorithm (GA) technology which combines with the new line sensor to deliver maximum detection sensitivity and reliability.

The GA technology focuses the X-ray machine to identify difficult to detect contaminants with a high degree of accuracy, even at high throughput rates, using image data analysis over a number of trial runs. As it is common in food production for similar





contamination problems to recur, data logging can help to build up a more precise calibration protocol with each trial. This enables permanent or recurring defects to be easily identified during the inspection process.

Ishida's dual energy technology incorporates two line sensors, one which takes images at high energy and one at low energy. These are then compared, which provides a better overall image of the product with a clearer contrast between the product and any low-density foreign bodies, such as bone fragments.

benefits on production lines," comments Sibtain Naqvi, Ishida Europe's X-ray Product Manager.

"The enhanced sensitivity provides poultry processors with even greater reassurance that their high product quality standards are being maintained, and by minimising the number of false rejects, production can be maximised. We believe our IX-G2-F models represent another major advance in our X-ray inspection portfolio,".

[www.ishidaeurope.com](http://www.ishidaeurope.com)

"The next generation IX-G2-F X-ray inspection system offers unrivalled performance and with its improved line sensor and software capabilities it has already delivered significant

Ishida is a world leader in the design, manufacture and installation of complete weighing and packing line solutions for the food industry, helping manufacturers increase automation, reduce cost and downtime, increase efficiencies and maximise profits.

With an installed global base well in excess of 100,000 industrial machines, covering a huge number of applications and end markets, the company is the undisputed world market leader for multihead weighers and one of the leading global suppliers of snack food bagmakers, graders, traysealers, X-ray inspection systems, checkweighers, leak detectors and Industry 4.0 solutions.

This extensive product range, along with the company's in-depth knowledge and experience of many industries, mean that Ishida is able to design and install complete turnkey solutions for markets such as snacks, meat, poultry, dairy, ready meals, produce and dry foods.





# EXHIBITIONS - EXHIBITIONS

## 2021-2022

### SIGEP

15-17/03/2021

RIMINI

Fair for bakery, pastry, ice cream, coffee.



### mcTER

12/04/2021

ROME

Exhibition on energy efficiency.



### mcT COGENERAZIONE

21/09/2021

MILAN

Exhibition for cogeneration.



### FACHPACK

28-30/09/2021

NUREMBERG

International packaging trade fair.



### MEAT-TECH

22-26/10/2021

MILANO

Fair for the meat and ready meals industry.



### HOST

22-26/10/2021

MILANO

Fair for bakery production and for the hospitality.



### SAVE

27-28/10/2021

VERONA

Fair for automation, instrumentation, sensors.



### mcT ALIMENTARE

28/10/2021

BERGAMO

Fair on technology for the food&bev industry.



### MECSPE

23-25/11/2021

BOLOGNA

Fair for the manufacturing industry.



### SIGEP

22-26/01/2022

RIMINI

Fair of ice-cream, pastry, confectionery, bakery.



### PROSWEETS

31/01-02/02/2022

COLOGNE

Fair for the sweets and snacks industry.



### INTERSICOP

19-22/02/2022

MADRID

Fair for bakery, pastry, ice cream, coffee.



### FRUIT LOGISTICA

09-11/02/2022

BERLIN

Fair for fruit and vegetables.



### BEER&FOOD ATTRACTION

20-23/04/2022

Rimini

Fair for beers, drinks, food and trends.



### COSMOPROF

10-14/03/2022

BOLOGNA

Fair for the cosmetic production chain.



### ProWein

27-29/03/2022

DUSSELDORF

International wine & spirits exhibition.



## MIDDLE EAST 2021/22

### GASTROPAN

21-23/09/2021

ARAD

Fair for the bakery and confectionery industry.



### GULFOOD MANUFACTURING

07-09/11/2021

DUBAI

Fair for packaging and plants.



### HOSPITALITY QATAR

09-11/11/2021

DOHA

Fair of Hospitality and HORECA



### PROPAK VIETNAM

10-12/11/2021

SAIGON

Fair for packaging, bakery, pastry.



### WOP DUBAI

22-24/11/2021

DUBAI

Fair for fruits and vegetables.



### DJAZAGRO

22-25/11/2021

ALGERS

Fair for companies of the agro-food sector.



### ANUTEC

02-04/12/2021

NEW DELHI

Fair for the food&beverage industry.



### PACPROCESS FOOD PEX

09-11/12/2021

MUMBAI

Fair for product from packaging.



### GULFOOD

13-17/02/2022

DUBAI

Fair for food and hospitality.



### IRAN FOOD BEV TEC

07-10/06/2022

TEHRAN

Fair for food, beverage&packaging technology.



### PROPAK ASIA

15-18/06/2022

BANGKOK

Fair for packaging, bakery, pastry.



### GULFHOST

08-10/11/2022

DUBAI

Fair of hospitality.



# EXHIBITIONS - EXHIBITIONS

## EXHIBITIONS

# 2021-2022-2023

### VINITALY

10-13/04/2022

VERONA

International wine & spirits exhibition.



### LATINPACK

26-28/04/2022

SANTIAGO CHILE

International packaging trade fair.



### ANUGA FOODTEC

26-29/04/2022

COLOGNE

Fair on food and beverage technology.



### CIBUS

03-06/05/2022

PARMA

Fair of food product.



### IPACK-IMA

03-06/05/2022

MILANO

Exhibition for the packaging industry.



### MACFRUT

04-06/05/2022

RIMINI

Fair of machinery and equipment for the fruit and vegetable processing.



### SPS/IPC DRIVES/ITALIA

24-26/05/2022

PARMA

Fair for industrial automation sector.



### HISPACK

24-27/05/2022

BARCELONA

Technology fair for packaging.



### FISPAL

21-24/06/2022

SÃO PAULO

Fair for product from packaging.



### POWTECH

30-08/01-09/2022

NUREMBERG

The trade fair for powder processing.



### DRINKTEC

12-16/09/2022

MONACO

Fair for the beverage and liquid food industry.



### SIAL

15-19/10/2022

PARIS

Fair on food products.



### SUDBACK

22-25/10/2022

STUTT GART

Fair for bakery and confectionery industry.



### BRAU BEVIALE

08-10/11/2022

NUREMBERG

Fair of production of beer and soft drinks.



### SIMEI

15-18/11/2022

MILANO

Fair for vine-growing, wine-producing and bottling industry.



### ALL4PACK

21-24/11/2022

PARIS

Exhibition about packaging technology.



### INTERPACK

04-10/03/2023

DÜSSELDORF

Fair for packaging, bakery, pastry.



### IBA

22-26/10/2023

MONACO

Fair for the bakery and confectionery industry.



## RUSSIA CHINA

### AGROPROD MASH

04-08/10/2021

MOSCOW

Fair of machinery and equipment for agroindustrial industry.



### UPAKOVKA

25-28/01/2022

MOSCA

International packaging machinery exhibition.



### MODERN BAKERY

22-25/03/2022

MOSCOW

Fair for bakery equipment and food ingredients.



### BEVIALE MOSCOW

29-31/03/2022

MOSCOW

International trade fair for the beverage industry.



### INPROD MASH

13-15/09/2022

KIEV

International packaging machinery exhibition.





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