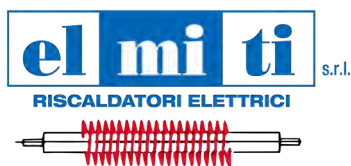


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beverage & packaging

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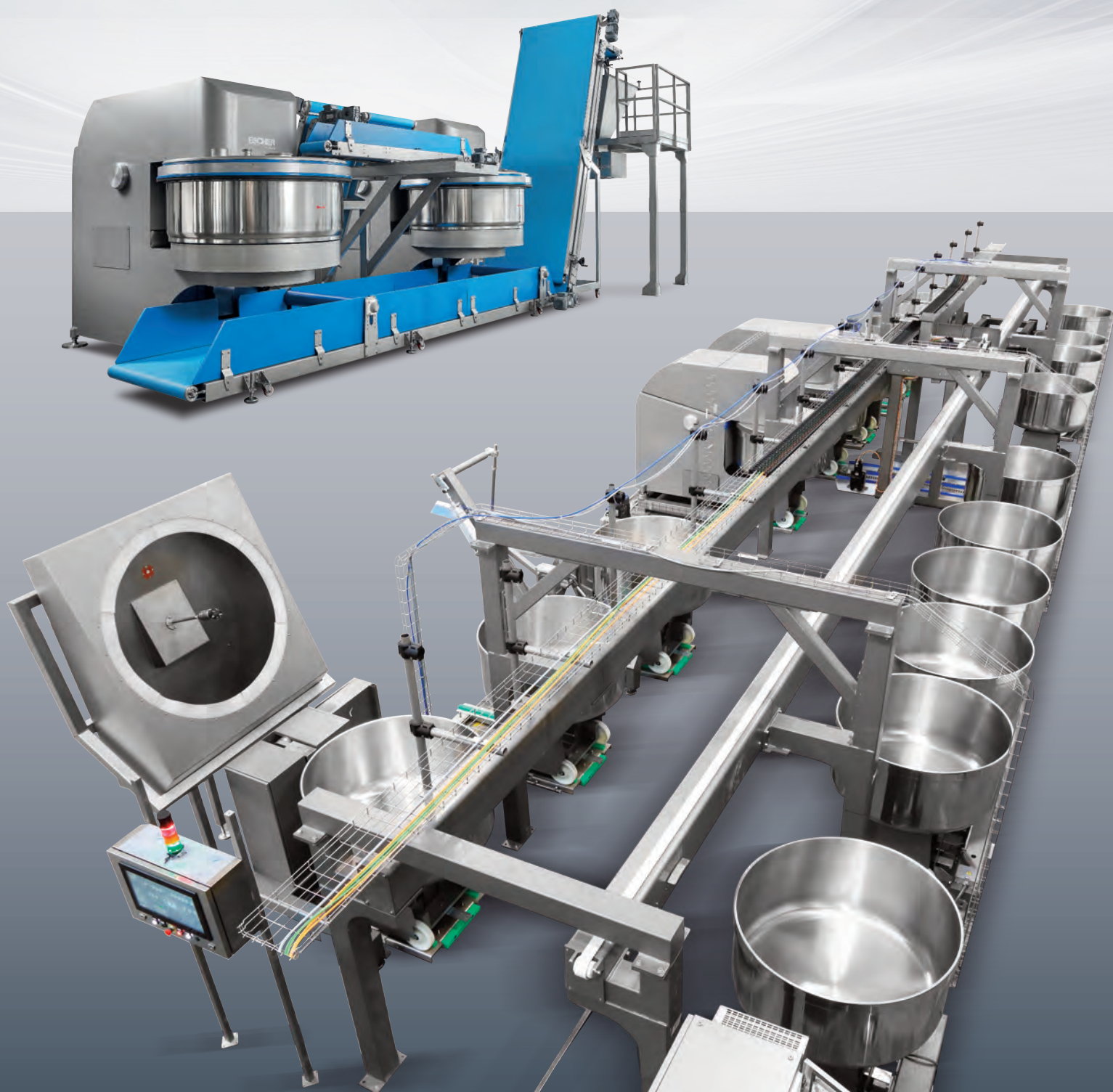
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SMI SPA - SMI GROUP

IN NATURE EVERYTHING IS FUNCTIONAL
AND REGENERATES ITSELF! SMI SOLUTIONS
FOR EDIBLE OIL.

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M.H. MATERIAL HANDLING S.P.A.

READY MEALS: BETWEEN SOCIAL TRENDS
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PRODUCTION LINES.

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IMA SPA

PRESSED STOCK CUBES: IN-LINE EFFICIENCY.

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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

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**Machineries, plants and equipment
for food and beverage industry**

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SOLVING AIR CONVEYORS PROBLEMS WITH THE UNIVERSAL BLOW MOULDER-FILLER CONNECTION MODULE



BM Service has developed and manufactured the first universal module that allows you to connect a blow moulder to a filling machine, of whichever manufacturer they are also different between them; the only requirement is that they are both quality machines that meet the customer's production needs. The connection module is made in stainless steel and has a mechanical transmission with axes depending on one motor. This machinery allows the elimination of air conveyors used to transport the bottles between the two ma-

chines, consequently solving all the problems related to it.

The module takes the name of UNICOM because it unifies and combines the two machines and has been designed to modernize and optimize PET bottling lines; it is a bench at conveying the bottles coming out of the blowing machine towards the filling system. The purpose is to shorten the transport section between blowing and filling machine in order to solve the problems related to bottle transportation over a particularly long path.

The main problems that can be solved are the optimization of the spaces in the line and the reduction of water and energy consumption, the reduction of the risks of contamination of the bottles and, last but not least, the problems of crushing and distortion of the bottles themselves.

The new market and production needs have led to the choice of increasingly green bottles that are advantageous for the environment but not for production due to the new characteristics of the containers. Bottles made with less weight are



BOTTLING AND PACKAGING SOLUTIONS

BBM Packaging is an Italian excellence company operating both nationally and internationally. The company specialises in the supply of **turnkey bottling and packaging lines**. We collaborate and work for the top brands of the beverage industry, but offering the same excellence to large multinational firms and local ones. The customised, flexible and quick service is the main reason why customers have chosen us for over 10 years, identifying BBM as the ideal partner for every project.



Used equipment excellence, thanks to a careful selection and an overhauling and updating process, to offer machines at competitive prices on the market

Technical assistance, with more than 50 highly-skilled technicians with over 20 years of experience and competence in the sector

Spare parts, whether it is normal usage wear or an emergency, our warehouse have a wide range of available items, guaranteeing fast delivery and competitive prices;

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often chosen, reducing the raw material and therefore also the costs; being lighter, however, increases the risk of being deformed along the way. Another type of bottle, increasingly used, is that produced with recycled plastic, but it also creates problems with air conveyors, these bottles often bind together reducing the functioning of the plant. The combiner proposes a star transfer that allows the protection of the containers and to overcome these problems.

“We always want to find new solutions that allow our customers to optimise their plants and solve their problems quickly,” explains Giuseppe Boffelli C.E.O. of BBM Service – “We start by listening to the customer’s specific

needs and requirements, we carry out technical audits at their plant, we understand the critical areas and where we can intervene, and then we present our proposal. We don’t offer standardised solutions, but realise tailor-made projects based on existing machinery, objectives and available resources. The Unicom project was born out of an increasingly recurring need among our customers, that is to solve the numerous and ever-increasing problems with air conveyors. The combiner makes it possible to achieve the desired results without replacing existing machinery, so there is no waste of resources, including financial ones. The main advantages our customers have achieved are: optimisation

of line space, elimination of air conveyors problems and reduction of energy and water consumption.”

The combiner is just one of the solutions that BBM’s technical department can offer its customers. Having an internal engineering office allows BBM to follow the customer in every stage and to create tailor-made solutions to meet their goals. These skills, combined with flexibility and fast assistance, have allowed the company to gain the loyalty of top players in the beverage sector, such as Nestlé Group, Coca Cola HBC, Refresco.

BBM Service not only sells used machinery, but, thanks to its qualified technical department, designs and builds special solutions for bottling lines, able to satisfy the most particular application needs. The tailor made machines are developed on customer specific requests, offering the max flexibility, both in terms of building and performances. A tailor-made solution allows to realize what customer have thought for the packaging of your product, granting the results. 🏭

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SARCHIO, THE QUALITY OF ORGANIC, VEGAN AND GLUTEN-FREE NATURE SINCE 1982

MEETS TECNO PACK'S TECHNOLOGY

Sarchio's story began nearly 40 years ago. It was founded on 2 September 1982 in Carpi, in the province of Modena, to offer healthy, natural and high-quality food every day.

The forward-looking vision of Cesare Roberto, chief executive of the company, was to promote a lifestyle based on a correct diet using organic food, free of synthetic chemical substances and respecting the fertility of the soil, human health and the environment. The strong link with the nature is also reflected in the name he chose for the company: Sarchio, an old farming tool of rural tradition.

The first products made by Sarchio are linked to the Italian traditional cuisine: pasta, sauces, extra virgin olive oil and other main ingredients of the Mediterranean diet.

Over the years, Sarchio's offer has expanded and specialized to meet the consumers' different requests and needs.

Paying great attention to nutritional values and health benefits, in addition to the more traditional Italian products, Sarchio has added to their range more innovative food products.

With a focus on gluten-free and vegan solutions, the company has started producing biscuits, cereal and seed bars, chocolate, rice cakes, crackers and breadsticks, as well as breakfast cereal for those who follow



Cesare Roberto

particular dietary styles or have an intolerance to some ingredients.

Today, Sarchio's offer includes over 150 organic products, including the gluten-free and vegan lines – a complete range of products, ideal for those who have to give up gluten

as well as for vegetarians, vegans, adults, children and anyone who wants to make a healthier and lighter diet a real lifestyle.

Spreading the culture of a correct and healthy organic diet with light and balanced foods has always been Sarchio's mission.

In addition to this, the company is renowned for their artisan care in the production process, starting from a careful selection of the best raw materials, focusing on organic, wholemeal, unrefined and gluten-free ingredients.



Tecno Pack
PACKAGING MACHINES

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SP
general system pack



In 2017, Sarchio added a new structure to its historic headquarters in Carpi.

It is more than 6,000 square meters divided into three plants with nine production lines in total and departments working only on gluten-free products, to manage better and more safely their processing.

The company decided to build a new "Sarchio house" for two reasons. On the one hand, the earthquake of 2012 severely damaged the old offices, forcing employees to work in containers for a long time; on the other hand, the positive trend of the





company made it necessary to enlarge their premises and invest significantly in technological innovation.

For this purpose, Sarchio turned to the Tecno Pack group, the Italian leader in the supply of packaging technologies, for the implementation of various automated end-of-line systems.

Moreover, the ethical commitment of the Carpi-based company towards the environment has led them to set a target for 2020: reducing to a minimum the environmental impact of their packaging materials, using more sustainable and 100% recyclable packaging.

The partnership with Tecno Pack was born to create recyclable packaging made of paper.

Since 2012 the collaboration with Tecno Pack has put Sarchio in the





technical conditions to produce and package all food products automatically.

Since their first meeting, Sarchio explained to Andrea Motta, Tecno Pack Area Manager, the urge to find a reliable partner, who could assess and implement Sarchio's projects in every detail, following the company's growth and evolution step by step.

The goal has been fully achieved to date, as demonstrated by the new packaging that guarantees freshness, traceability, sustainability and protection of the product.

Careful study, customised systems and widespread assistance are transformed into guarantees for Sarchio consumers, who always find a

natural product, perfectly preserved and intact.

Sarchio and Tecno Pack – two winning excellences. 🏛️





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 20th 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.

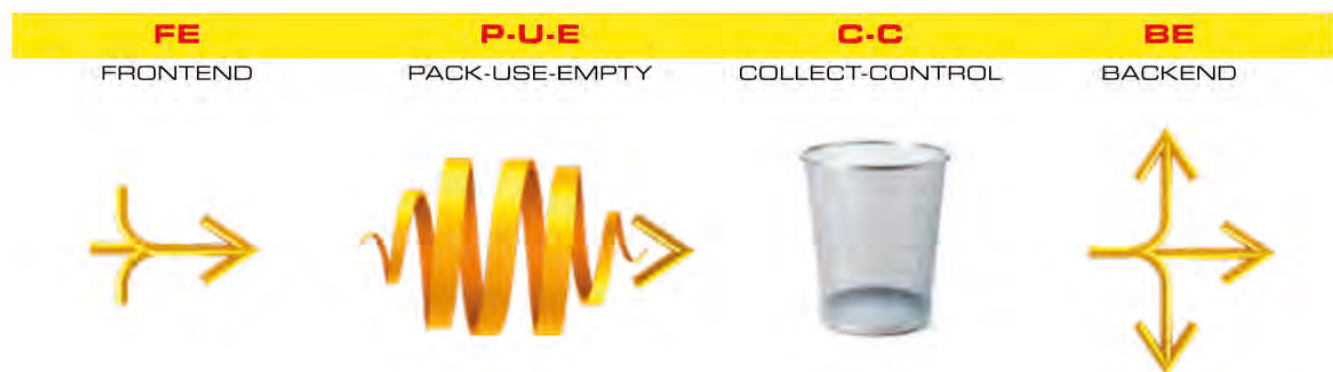


Holistic innovation is needed as we are all interconnected in packaging



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, CO₂, 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.



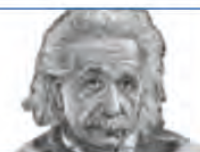
	FE	P-U-E	C-C	BE
Litter			✓	
CO ₂	✓			✓
Inadequate pack optimisation Product Packaging material + Total environmental impact				
Future issues	✓	✓	✓	✓



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



FOR MORE THAN 35 YEARS CMI HAS INVESTED ITS BEST RESOURCES IN CONTINUOUS TECHNOLOGICAL RESEARCH

For more than **35 years** CMI has invested its best resources in **continuous technological research**, designing and manufacturing innovative **filling and capping systems** able to respond to different requirements and achieve new goals every day, anticipating the market's expectations.

CMI industries has several different divisions to design, manufacturing, assembling and testing its unique machines. They are innovative and technological and they pack also food products.

For several years CMI Industries has been experiencing a phase of great growth and renewal in the technological field thanks to the constant innovative research that characterizes the Company.

The competitive advantage of CMI Industries is to focus on satisfying specific customer requests with regard to continuous innovation, combined with the integration of a customized service.

Thanks to this attitude we present a new machine born for food cream (both sweet and salted).

It is a **LINE BRUSHLESS 6**, automatic linear filling machine with 6 filling nozzles with 1000 ml dosers for **food creamy product with one or two colors**.

The machine is very adaptable to customer's needs: you can choose a lower or higher number of dosers, you can choose production with one or two colors, you can add a closing station after the filling station or a blowing station before it. This

machine was born for kitchen creams but it is also suitable for milk, yogurt, juices, jam and honey.

Main technical features:

- Output 5000 pcs/h by 750 gr unicolor



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pillow pack
wrapping machine



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CMI Industries is a supplier of solutions; is a guarantee of quality and reliability Made in Italy and has matured over the past thirty-five years of activity a precise corporate identity, made of values that make it “the right choice to do”

- Output 3000 pcs/h by 750 gr two-tone
- Filling range from 50 gr up to 1000 gr
- Bottles selection and transport group by means n. 2 scrolls (front&back) managed by Brushless motors, adjustable in depth and height with hand wheel. Adjustable and storable speed by operator's panel
- Service tank, 65 lt capacity, mirror polished with spherical bottom, heated with hot water (of your supply), with max pressure 3 bar
- Loading hopper, 80 lt capacity, mirror polished with flat bottom connected to the side walls. Hopper covered with heating band with temperature control
- Hopper and valves mounted on guides with frontal sliding for easy cleaning
- N. 2 min / max ultrasonic product level sensors + vibrating too full safety sensor



- Manual valve for product delivery form the tank (for cleaning operations)
- Filling by volumetric dosers managed by brushless motors, one for each doser
- Dosing adjustment by means touch screen with storable recipes
- Pneumatic valves for product delivery into stainless steel dosing cylinders
- Product delivery nozzles made in stainless steel with gaskets suitable to the product to fill, with suction valve and tape collecting drops
- Stainless steel rear tray for collecting drops from the conveyor

- belt, complete with scraper blade
- Dosers in ground stainless steel, which can be disassembled using clamp fittings
- Gaskets suitable to the product to fill
- Delivery valve support and hoppers with height adjustment by means gear motor
- Filling machine managed by PLC SIEMENS S7 1500
- Electric panel and operator panel with data setting by 15" touch screen
- Safety guards with security micro according to EC standards with machine total closure and glass shockproof panels. 

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for Canning Industry

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DUETTI PACKAGING S.R.L.

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Tel. +39 049 9471274 sales@duettipackaging.com



DUETTI PACKAGING INNOVATION FIRST AND FOREMOST

Duetti 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

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-



PERSONALIZED SLEEVES AND SELF-ADHESIVE LABELS



Orograf S.r.l. has been in the **SELF-ADHESIVE LABEL and SLEEVE** business for 50 years and We are a well-established firm, both in Italy and internationally, hold ISO 9001:2015 certificate.

We offer a high-quality and highly flexible all-round service, **from graphic design through to final printing.**

Our production facilities are highly innovative and use the most advanced manufacturing technologies.

We have a wide range of printing systems (letterpress, screen, HD flexo,

digital, offset, hot relief, dry relief, perforation, glitter effect and on-foil pantone overprinting), and **we can print on all types of material, adhesive and non-adhesive** (laid, embossed, metallized paper, synthetic films, twin and booklet labels, reels and sheets), for any kind of end product.

But what really distinguishes Orograf S.r.l. is that **we can combine multiple printing systems on the same production line** and therefore offer our customers unique and customized final products tailored to their specific needs.

FOOD Labels

Regardless of whether they are applied on packaging or directly on products and fresh foods, labels for foodstuffs must be produced respecting a series of precautions dictated by the particular products on which they are to be applied. Above all they must be produced in compliance **with consumer health protection laws.** OROGRAF uses top-quality certified and guaranteed materials that meet these legal requirements and guarantee consumer protection.

In addition to informing the consumer about the product, food labels





OROGRAF s.r.l.

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known on the market.

Our rotary machines print up to six
colours simultaneously and apply
anti-UV coatings to any type of paper
or synthetic film, always
ensuring very high
production rates.





can be used as warranty seals or open-and-close labels; they can also carry advertising, recipes, warnings, information about competitions, discounts, and so on.

As well as being customized with logos, colours and ingredients, food labels also need to carry **traceability** information, such as barcodes, progressive numbers, production and best before dates, batch codes and other **variable data**.

Orograf offers a wide range of plasticized materials, white and transparent, as well as standard finishes such as lamination and protective anti-UV coatings, hot foil printing and relief embossing.

SLEEVES

A sleeve is a tubular label that shrinks when heated, **perfectly fitting the product** and giving it great visual appeal.

Our sleeves (produced in PET, PVC or PLA) can be printed in **multiple col-**

ours, including metallized ones.

An important characteristic is the option of providing every sleeve with a **“tear off” system**. This is essential for products that consumers need to be able to open easily after purchase; this system also allows the sleeve to be removed from the container for recycling, once the product has been consumed.

MULTIPAGE, TWIN LABEL and PEEL-OFF

Multipage, Twin and Peel-off labels are all great solutions when the available space is limited and needs to be optimised.

Multipage labels, as their name suggests, have a number of pages

and they come in different sizes and formats: they can take the form of folded leaflets; detachable or with a transparent resealable cover; or booklets (bound like a book).

Peel-off labels can have 2 layers (4 printable surfaces), 3/4/5 layers, or a booklet format; they can be printed in multiple colours, also internally, and there is the option of adding various other features, such as a tear-off system.

Twin labels are special self-adhesive “page-like” labels where a second layer (or page) can be applied on top of the first. This can be peeled back, read and repositioned. 🏠

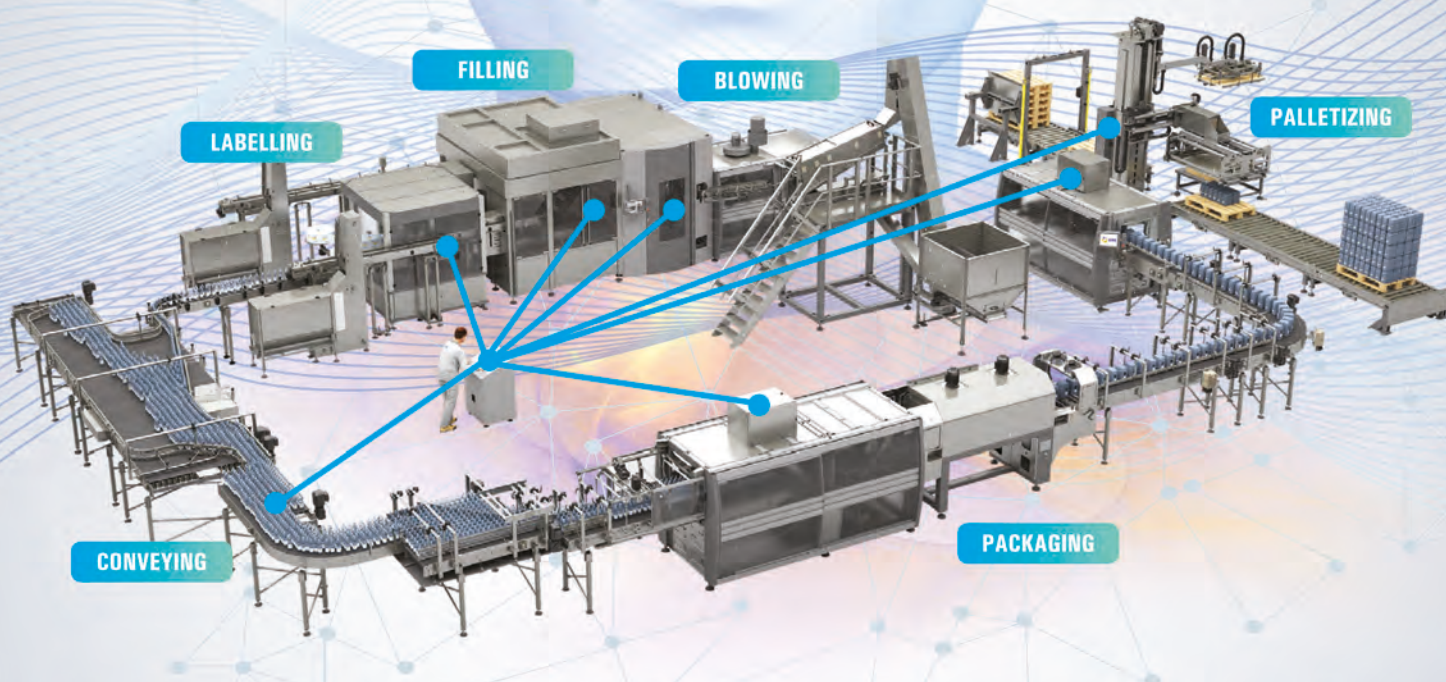
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SMI is specialized in designing, producing and installing complete lines for food & beverage bottling & packaging.

SMI turn-key systems feature Industry 4.0 and IoT technologies and an output rate up to 36,800 bottles/hour.

THE FACTORY OF THE FUTURE IS ALREADY A REALITY



IN NATURE EVERYTHING IS FUNCTIONAL AND REGENERATES ITSELF!

SMI SOLUTIONS FOR EDIBLE OIL

Future is always full of challenges, especially for extremely competitive market segments, like that of edible oil.

The challenge of flexibility and competitiveness

The companies of the edible oil sector, influenced by the trend of strong product diversification, need very flexible and efficient bottling and packaging plants in order to reach high levels of optimization and competitiveness of production lines.

The challenge of eco-sustainability

In an economic environment that is increasingly oriented towards eco-friendly solutions in the use of plastic packaging, a growing number of companies have chosen to use **rPET** (100 % recyclable PET) preforms, that allow to produce bottles with a high mechanical and aesthetic quality in

a context with low environmental impact.

Manufacturing and filling rPET or PET bottles

Recent studies clearly show the advantages related to the use of PET plastic bottles, containers that are unbreakable, safe, with great barrier properties, light and above all recyclable. When compared to other packaging materials, like glass or aluminium, traditional PET and, above all, its 100 % recyclable version (rPET), has a good environmental profile, especially thanks to its lightweight, that results in less material to be produced, less material to be disposed of, less energy used to manufacture it and less fuel used for the transport of packed products. Thanks to its recyclability and to its great weight/capacity ratio, many oil producers choose this packaging material as ideal solution

in terms of environmental sustainability. Bottling and packaging solutions offered by **SMI** include a wide range of stretch-blow moulders from the **EBS ERGON range**, that allow to produce rPET or PET containers, of integrated filling- capping systems from the **ECOBLOC® ERGON range** and of different types of secondary and tertiary packaging machines capable of meeting just about any requirement in terms of pack format and production output.

Compact rotary stretch-blow moulders, ideal for those who produce oil

Stretch-blow moulders from the **EBS K ERGON range** are the ideal solution for productions up to 9,200 bottles/hour and offer all the advantages of the rotary blowing technology. Thanks to the compact and ergonomic design, they can be installed even on





small bottling plants and ensure advantages in terms of ease of use and control by the line operator.

Eco-friendly processes

The stretch-blow moulding carousel is equipped with motorized stretch rods, controlled by electronic drives, that do not require mechanical cams. This solution ensures a precise management of the movement of the stretch rod, significant energy saving and reduced mechanical interventions.

The stretch-blow moulding system makes use of high-performance, low dead volume valves, that allow to reduce pre-blowing and blowing times, ensuring greater machine performance and higher quality of the bottles produced.

Precise and reliable electronic fillers

Oil filling technology supplied by SMI is extremely precise and reliable, thanks to the use of the mass flow meter, an electronic device installed next to each valve that detects the product flow placed in each bottle. In this solution there isn't any contact between the valve and the bottle, thanks to a gripper that grabs the bottle by the neck, keeping it in line under the filling valve, with undoubted advantages in terms of process hygiene and safety.



The wide range of solutions offered by SMI also include that with the weight filling system.

If you want to find out other advantages of EBS ERGON stretch-blow

moulders or stretch-blow moulding, filling and capping ECOBLOC® ERGON integrated systems, visit SMI web. 🏠

www.smigroup.it



GPI GROUP NEED IS THE MOTHER OF INVENTION

Focus on innovation and reliability are the strengths of Geo Project Industries.



Frozen food cartoning by Picker - All in One Unit

The history of GPI Group is linked to innovation and passion for its work, two terms that have always characterized Italian entrepreneurship.

Geo Project Industries (GPI GROUP), through continuous research, and a consolidated technological know-how of the company's employees and owners with thirty years' experience in the packaging sector, designs and manufactures complete plants, which have found the best possible response from its customers in the world precisely for the quality and performance of its secondary packaging systems.

The company manufactures complete lines starting from the reception of primary products in the food sector (bakery, confectionery, coffee, dairy, ready meals, grocery) to their packaging before palletizing.

A primary objective for the company is the cultivation of highly specialized skills able to meet and satisfy the specific needs of the customers. A strong point lies in "Tailor made" solutions, accompanied by particular care during the testing phases and a prompt after-sales service.

The product range includes: cartoning machines, case formers, case

closers/sealers and hood applicators, case packers, robotized cells, Monoblock packers, traditional and robotic palletizers, as well as ancillary equipment required within integrated lines.

The evolution of packaging requires continuous study to ensure that the most varied types of products can be handled safely, in this sense cartoning and palletizing of innovative boxes (special design cases, tray & hood, wrap-around) is the core business for the GPI Group.

The constant growth in turnover, despite the obvious problems related

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DIAMOND 850
high-performance packaging machines



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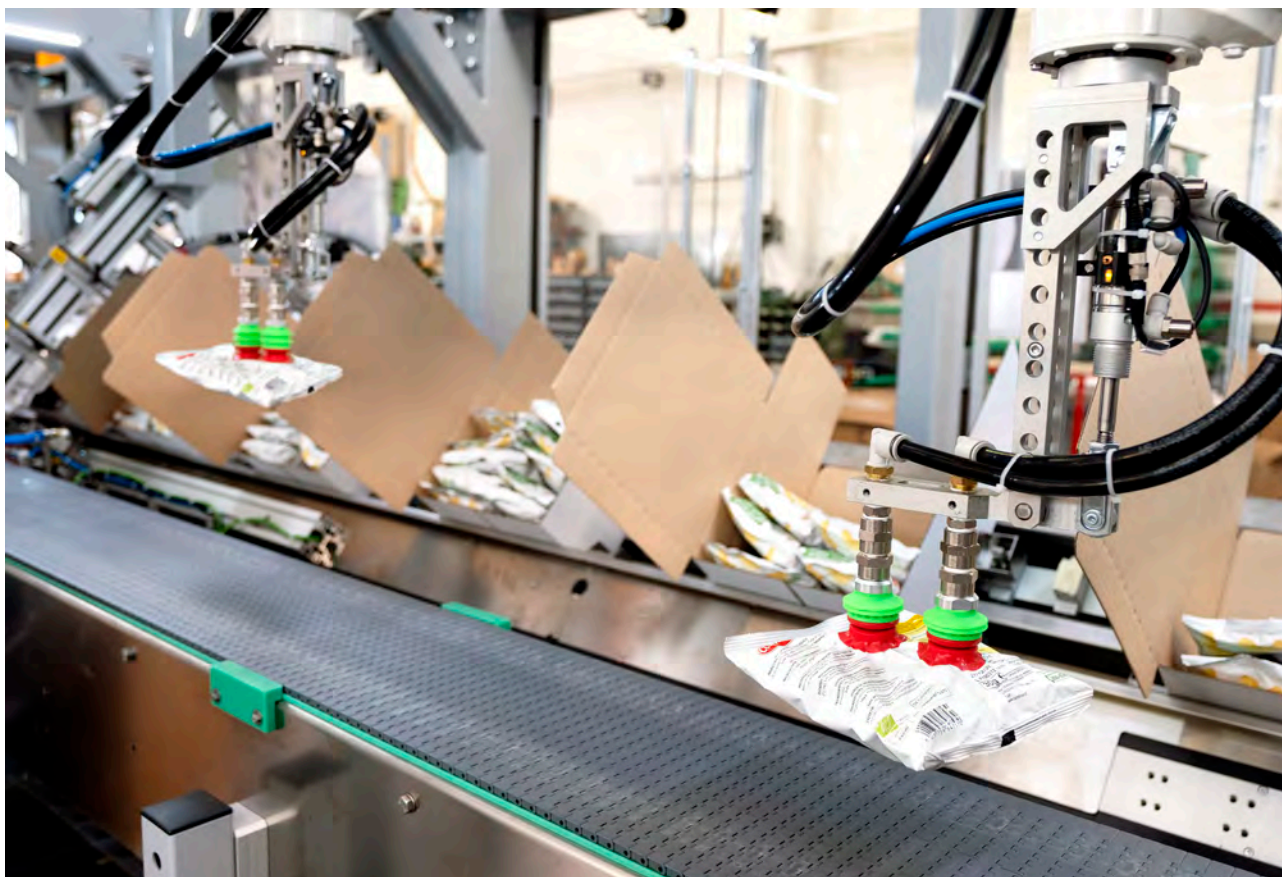


Via Lago di Albano, 70 · 36015 Schio (VI) · ITALY



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ifp
PACKAGING



All in One Unit for chips bags



Cartoning of sachets containing coffe pods

crucial to tackling geographic, economic, and technical obstacles that customers may face.

Managing to solve problems at a distance thanks to these innovative interventions for GPI Group customers will be like having a highly experienced engineer on site.

Production never stopped because GPI Group immediately put in place all the precautions and measures necessary to work in the safest conditions. 🏢

www.gpindustries.eu/it/

to the pandemic situation that the world is experiencing and the objectives that GPI Group has for next year are the result of constant investment in R & D and the expansion of the sales network with particular attention also on territorial marketing and communication. Virtualization can be applied to many different aspects of a machine's life cycle and will be



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PAN AMERICAN PACKAGING: CUSTOM MADE EXCELLENCE

High-performance stretch films for all industries



Pan American Packaging Corp.
GERMANY - ITALY - SWITZERLAND

The spread of the Covid-19 pandemic has had a profound impact on the packaging industry, imposing new standards for hygiene and product preservation.

Pan American Packaging Corp. has always placed research at the heart of its business, focusing on finding innovative solutions to create cutting-edge products and offering high-level services to its customers.

Thanks to this approach, Pan American Packaging Corp. has not been caught unprepared by the new chal-

lenges imposed by the peculiar historical and economic moment we are living.

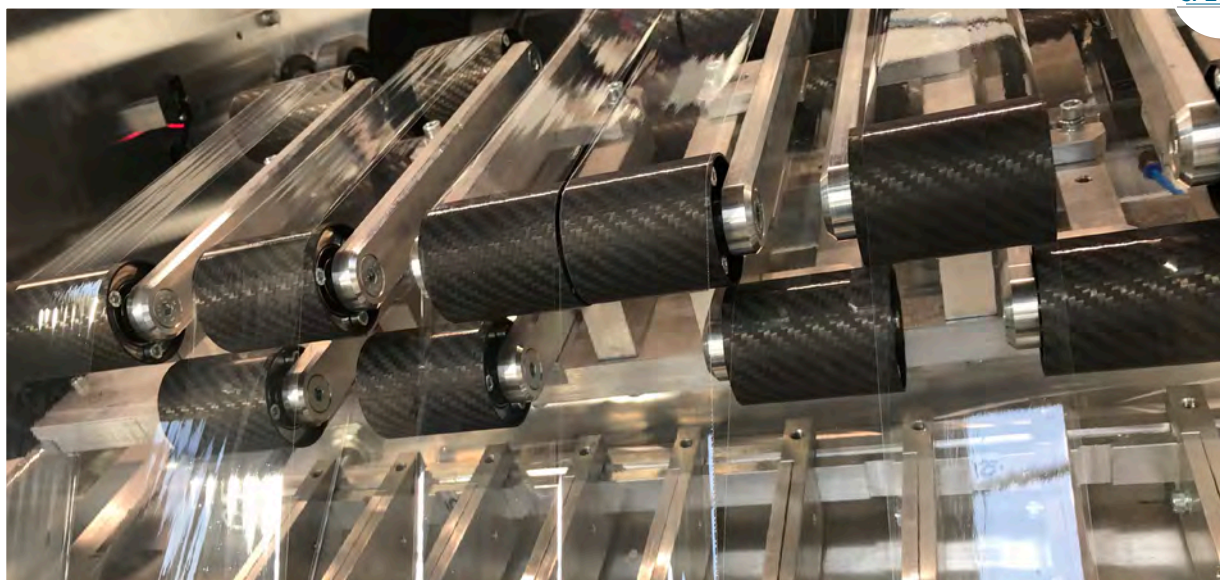
The company, which has four European offices and three production plants, produces high-quality stretch film, technically advanced, offering competitive prices and a punctual and reliable service, matured through years of activity and experience.

The range of products developed and marketed is very large, offering different formats in terms of weight, height, and thickness, adapting to

the most diverse and particular packaging requirements.

As far as stretching capacities are concerned, they range from standard films offering 150% stretching to high-performance and technical films with up to 370% stretching.

The Special Films Division of PAN AMERICAN PACKAGING has also recently created eight new products - certified by European accredited laboratories - with innovative and very special characteristics that make them suitable for specific uses in various sectors.



FILM
SPECIALI

Eagle Force Stretch: reinforced film with a longitudinal thickening.

The thickening gives it exceptional resistance to tearing and an excellent containment capacity, making it particularly suitable for wrapping products with non-homogeneous shapes.

Eagle Air Stretch: reinforced macroperforated film with exceptional transpiration capabilities. The range features different structures and hole sizes to meet a wide range of ventilation needs, ideal for food applications, mills and wherever the post-pasteurization production chain is very short.

Green Leaf Stretch: with its characteristic green color, it is produced with special cobalt-free additives that make it timed degradation, and therefore eco-sustainable.

Steril Stretch: anti-microbial stretch film, particularly suitable for applications where it is necessary to preserve the product against pollutants or viral agents, in any working environment.

Fire Shield Stretch: flame retardant film, with a particular orange color.

Antirust Stretch: it has the property of preserving the packaged goods from the formation of rust.

Fresh Fruit Stretch: thanks to special additives able to absorb ethylene, it can control and slow down the wasting and aging process for fruit and vegetables.

Insect Buster Stretch: able to preserve food products from insects and mites thanks to a particular pyrethroid technology.



The imminent entry into effect of the Plastic Tax (from July 1, 2021) has prompted many companies to rethink packaging as a resource, acting on materials and promoting recycling and reuse. But this is not enough to win the challenge of sustainability: the virtuous companies will be those who manage to ensure long-term industrial production that is both efficient and environmentally friendly.

At Pan American Packaging, the commitment to sustainability has always been an integral part of our corporate culture and affects all activities and processes.

This commitment is embodied in our unique **Green Eagle Force** reinforced film, produced with special additives that make it time-degradable - therefore environmentally sustainable - and composed of raw materials from industrial waste.

Green Eagle Force complies with ASTM D5510/ASTM D5208 and comes with time-delayed degradation certification from two European laboratories.

Green Eagle Force is just one of the many novelties that have enriched the wide catalog of the Specialty Films Division - Pan American Packaging, and it is among the most appreciated by our customers. To learn more, contact us and we will be happy to introduce you to our range of sustainable films.



The activity of PAN AMERICAN PACKAGING is characterized and animated by the constant research of more and more advanced technological solutions and products. It is also char-

acterized by great attention to the customer service that holds a fundamental role in the services provided to customers and also for this aspect the company is considered one of the

most reliable and efficient market player for service and after-sale. 🏢

Visit:
panamericanpackaging.com

LABELING AND DISTRIBUTION OF VACUUM-PACKED FOOD PRODUCTS

Etipack describes how it developed a tailor-made system for the distribution of labels on the top of vacuum-sealed salmon bags, featuring variable data control and non-conformity management.

The client was in search of a system to manage the labelling of vacuum-sealed plastic bags of smoked salmon with maximum precision and control. With regard to handling, the system had to make it possible to effectively and quickly optimize the loading and transport of as many packages as possible.

As for data management, the need was to achieve maximum autonomy and flexibility on the one hand, in designing the label, and on the other, in the entry, printing, management and control of variable data.

Finally, the system had to allow the correct identification of mislabeled products, therefore not conforming, in order to allow their exclusion from the process.

THE CHALLENGE

Distribute, handle and label products with guaranteed accurate control of overprinted variable data and rejection of non-compliant packages.

THE SOLUTION

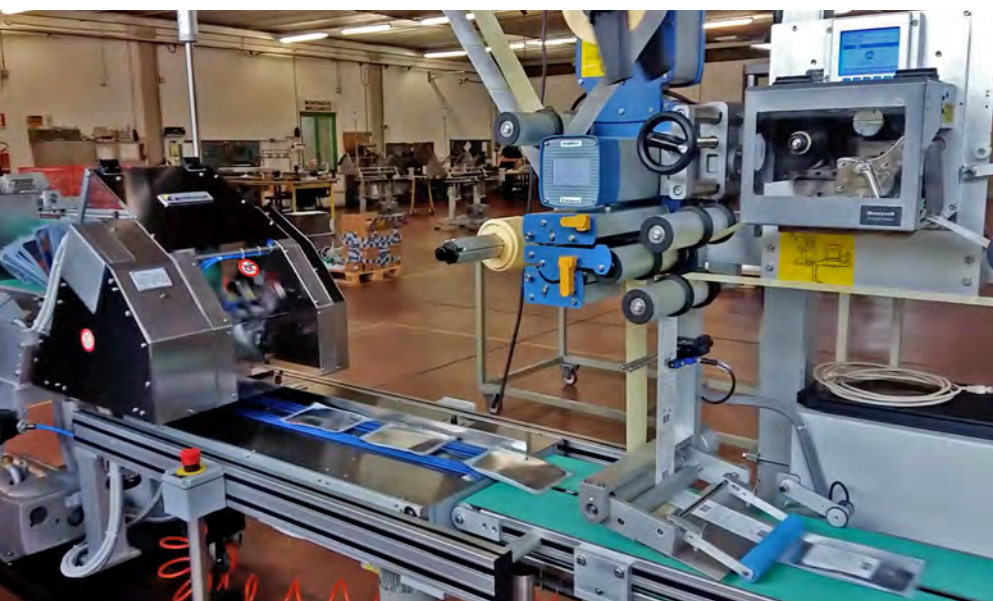
System 9 special for top labelling, complete with pick&place with loading system, barcode control, non-conformity management, and variable batch count.

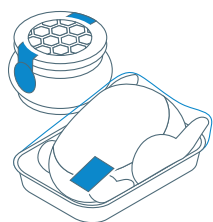
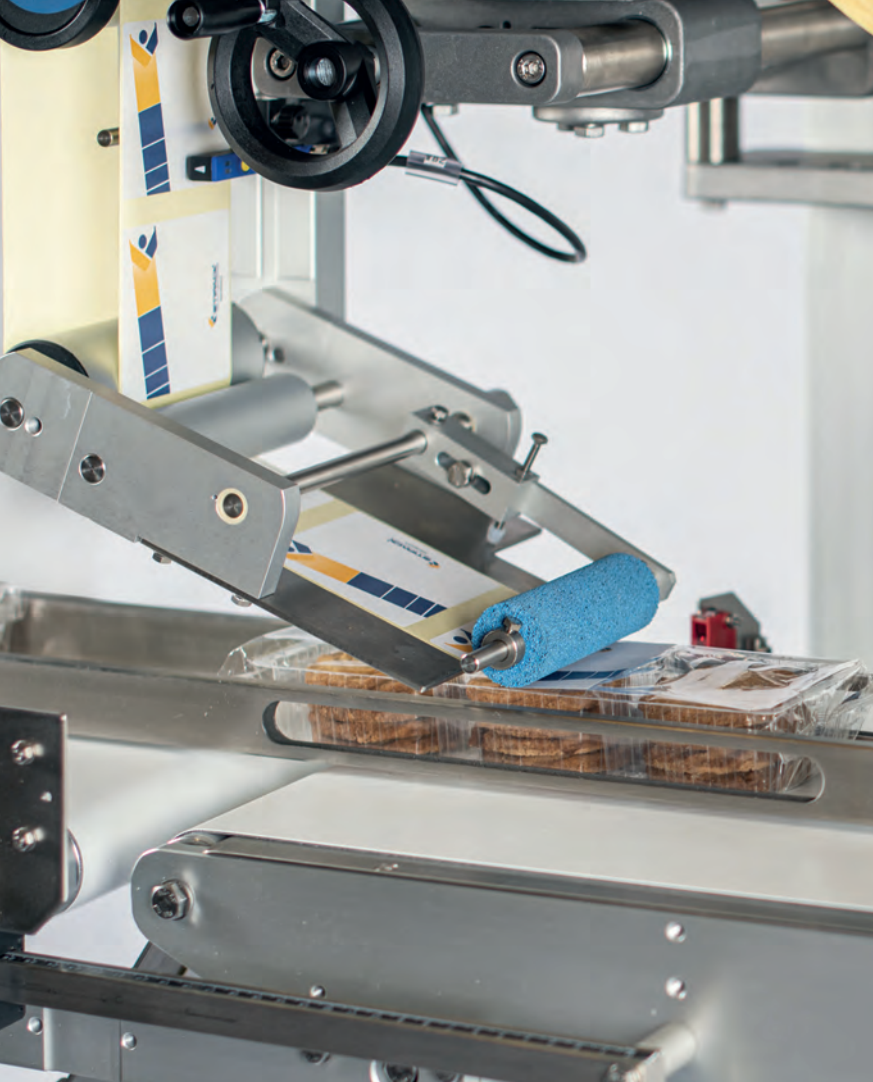
To achieve the required results, Etipack has designed a system consisting of five sections: feeding, labelling, printing and data control, product counting. Product distribution is car-

ried out thanks to an automatic Clippy Big pick and place device, complete with a high autonomy double belt loading storage system. The application of self-adhesive labels on the upper surface of the packages is conducted with an Energy 200 automatic labelling machine with a distribution speed of up to 50 m/min. Thanks to a customized control panel, the client can manage the coding and printing of variable data. In case of non-compliance, the system block is activated, allowing the removal of non-compliant products. A batch collection and management device is installed at the system output.

CLIPPY BIG PICK & PLACE

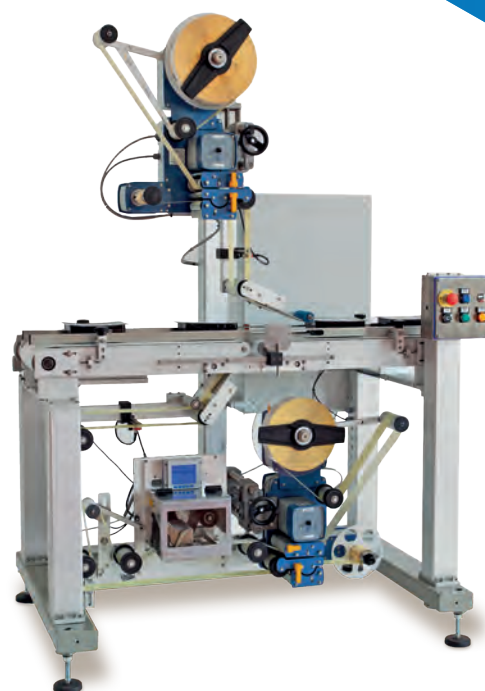
The Clippy Big automatic pick&place device allows the product to be positioned horizontally on the conveyor belt thanks to a suction cup device. Equipped with a brushless motor, it is complete with a high-autonomy double-belt loading magazine allowing the control of: product progress towards the fiber optic photocell equipped gripping point, minimum load and empty storage unit.





etipack
FOOD

A COMPLETE RANGE OF SOLUTIONS
FOR **LABELING, CODING,**
PACKAGING DESIGNED
FOR THE **FOOD INDUSTRY.**



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labelling, coding, caring

CUSTOM MANAGEMENT INTERFACE

Electrical panel with integrated PLC INDUSTRY 4.0 ready, it allows the management of the system the labelling process, the Barcode control and the collection of the packages at the end of the line.

ALIGNMENT SYSTEM

Height adjustable and placed alongside to the conveyor belt, it allows to deposit even manually packaged products.

SUPPORTING STRUCTURE

It allows to sustain belts and is composed of two groups of brackets, supporting columns with independent vertical micro-adjustments, and a base equipped with wheels.

ENERGY 200 LABELING MACHINE

Equipped with stepper motor motorization, it allows to reach a distribution speed up to 50 m/min.

Thanks to the integrated touch screen display, it enables the setting of more than 50 operating parameters.

COUPLED PULLING UNIT

It allows to strengthen the support during ribbon sliding and to stabilize the label reel pulling with a maximum width of 200 mm.

CHECKING AND COUNTING

A Barcode reader with supports, allows the control of the label presence on the product. In case of non-compliant product, the system stops to enable the removal of the package. The photocell module counts the correctly labelled bags.

BATCH PICKING AND MANAGEMENT

A product collection system placed at the end of the line, equipped with bag overlap control and variable counting with acceleration at the end of the count, allows the labelled packages to be sorted into batches.



THE RESULTS

High flexibility in formats management as well as feeding modes, with maximum accuracy and labeling control.

The dedicated labelling system, for the distribution and application of labels on the upper side of smoked salmon packages, allows the customer to manage with maximum flexibility, precision and autonomy the labelling of 3 label formats: 175, 135 and 130 mm, with a high level of reliability thanks to the several control systems for variable data and non-compliance.

Thanks to the integration of the customized support structure for the Clippy Big pick-and-place device, the client can also choose to manage the packaging process in manual mode involving an operator for loading the products to be labeled. 🏠

etipack.it/en

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labelling, coding, caring



IMMERSE
YOURSELF
IN
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How Kuchenmeister Ensures Product Safety



Kuchenmeister GmbH has been producing delicious baked goods and confectionery specialties for over 130 years. The medium-sized, family-owned company with its headquarters in Soest is the market leader for ready-to-serve cakes in Germany as well as the international market leader for the German specialties, Baumkuchen and Christmas Stollen. For more than 20 years, the industrial bakery has relied on product inspection solutions from Mettler-Toledo. 'Baking is our passion' is the motto used by Kuchenmeister

with its 1000 or so employees, who produce more than 90,000 tonnes of cakes a year, which are distributed worldwide both under the company's own brand 'Kuchenmeister' as well as food retailer brands. The company, which is certified at IFS Higher Level, maintains ten production lines in three-shift operation at its main factory. Mettler-Toledo's product inspection equipment is used for foreign body detection and product conformity along the entire production line, from incoming goods through processing to checking packaged products.

X-ray inspection for incoming goods

Kuchenmeister is committed to minimizing risks to consumer and product safety and, when in doubt, always errs on the side of caution. For example, the company sources pre-washed raisins for use in its Christmas Stollen, but subjects these to cleaning again prior to processing and then checks them for foreign bodies using x-ray inspection. This is because, with natural products, there is sometimes a danger that foreign objects, such as small stones, can get into the crop during the harvesting process and cannot be completely removed with 100% certainty during the washing processes.

X-ray inspection is the method of choice here for reliably detecting foreign bodies such as stones, glass, rubber, metal and high-density plastics. "By checking incoming goods for foreign bodies, we simultaneously minimise the risk of small stones or metal parts causing damage to production machines and resulting in downtime further down the line," explains Thomas Engel, Head of Quality Management at Kuchenmeister.

Feedback control ensures product quality

The ingredients inspected in goods-inwards are processed into various products such as stollen, croissants or pound cakes and baked. Dynamic checkweighers check whether the cake moulds are filled with the intended amount of batter. Thomas Engel explains,





“The right amount of batter is not only an important factor in achieving the correct final weight. It is also a central quality parameter for ensuring the optimum level of cooking and browning.” Dynamic checkweighers therefore continuously optimize the filling process by means of fully automated feedback control. If the checkweighers detect a tendency to over-fill or underfill, they automatically trigger a reduction or increase in the volume of batter at the filling station. In this way it is possible to effectively avoid costly product waste caused by overfilling as well as ensure compliance with regulations by eliminating underfill.

Seamless final inspection

X-ray inspection systems and metal detectors at critical control points (CCPs) carry out checks for foreign objects before the baked goods are shipped. The individual

product and its ingredients as well as the type of packaging determine which technologies are used. For homogeneous products such as pastry cases or croissants, the company relies on metal detection technology. This detects foreign bodies from ferrous metals such as chromium, non-ferrous metals such as brass and aluminium but also magnetic and non-magnetic stainless steel. In the case of croissants, foreign bodies are detected by means of a free-fall metal detector integrated into the vertical packaging line. The freshly baked goods fall from above, through the metal detector, are checked and land directly in the sales packaging. Foreign bodies in products such as the traditional German ring cake, Gugelhupf, as well as most pound cakes, are detected using x-ray inspection systems. These have a horizontal conveyor belt and inspect up to 3000 units/hour. Contaminated products

are removed from the production line by means of a pusher reject device. “In order to best ensure product safety for our customers, we use x-ray inspection systems on the lines where the product or packaging variant requires it,” says Engel. Foil packaging containing aluminium has become significantly more important in baked goods in recent years.

It is well suited to baked goods such as pound cakes, as hardly any moisture is able to escape. The cake does not dry out, is longer lasting and protected from aroma exchange in virtually airtight packaging. For foreign body detection this presents new challenges: metal detectors are pushed to their limits when it comes to distinguishing metallic foreign bodies from the metal-containing packaging. Unlike x-ray inspection systems where packaging containing aluminium does not affect the accuracy of

detection, these systems can look through the aluminium foil and detect foreign bodies with a higher density than the product.

Top priority: line availability

On seven of the ten production lines, there are no product changes. Fail-safe operation and availability are top priorities for the company in ensuring it is able both to produce its own-branded products and deliver its food retailer branded products. Thomas Engel refers to the production of croissants as an example. "We bake about 33,000 croissants per hour. It is easy to see what damage can be caused by several hours of downtime on a production line. Not to mention possible penalties if we are unable to deliver our food retailer brands on time. To put it bluntly, we cannot afford downtime of the production line due to a defective inspection device. That is why we have a Comprehensive Care Service Contract in place with Mettler-Toledo. This not only covers the costs associated with labour and spare parts, but also includes regular maintenance and cleaning measures as well as functional tests including, in particular, the exact scheduling of maintenance measures. The service intervals agreed in the Comprehensive Care Service mean that the baked goods manufacturer is able to avoid maintenance-related production losses.

Thomas Engel explains, "If a seasonal product changes, for example our Christmas stollen, this means that the line must be customised and adapted to suit the new product. As the production line already has to be at a standstill for this to occur, we use this opportunity to have the necessary service and maintenance work carried out in accordance with the schedule."

In addition to its own technicians and the Comprehensive Care Contract, Kuchenmeister also maintains its own spare parts warehouse, which ensures fast in-house repair times in the case of line failures. Toothed belts, drive and guide rollers as well as infeed and outfeed belts are stored at the Kuchenmeister site. Operators, service and maintenance staff as well as quality managers are trained regularly by Mettler-Toledo to ensure they are able to optimally operate and maintain the equipment. In this way, Kuchenmeister has been able to increase its overall system effectiveness and simplify the provision of evidence as part of its auditing procedures.

Long-established single-source strategy

Kuchenmeister has been putting its trust in Mettler-Toledo's production inspection technology for more than two decades. "Our philosophy is to rely on a single-source strategy," says Thomas Engel. "We have one contact person for our product inspection technology and can coordinate everything – be it service and maintenance appointments or modernisation measures – via that one contact person. Since we are completely satisfied with how this cooperation has worked until now, we see no reason to deviate from this philosophy. By the way, we apply this strategy to compressors, for example, and to other areas as well."

Thomas Engel has been impressed by the longevity and reliability of the equipment: "The oldest Mettler-Toledo product inspection device that we use here, a dynamic GARVENS checkweigher, has been running for 20 years. However, our goal is not to achieve the record for age or endurance. So far, we have had no reason to replace the device at this station. Normally,

we will replace and modernise our inventory of inspection equipment whenever it requires additional functionality or when an increase of the overall equipment effectiveness of the line is required," says Engel. Kuchenmeister always combines the installation of new inspection equipment with an introductory training for its operators by Mettler-Toledo. Twenty years of collaboration has given Kuchenmeister a comprehensive overview of the advances and developments in product inspection technology over the past two decades.

"Much has happened, not only in terms of detection accuracy. This is reflected, for example, in the higher energy yield of today's x-ray generators, the increasingly optimised hygienic design and their compact construction, requiring less floor space or in the 5-year warranty that Mettler-Toledo gives on new x-ray generators," summarizes Thomas Engel and provides an example: "We recently placed a new combination device, consisting of a dynamic checkweigher and a metal detector, in the packaging line for children's croissants. With this, we combine foreign body detection and weight checking in one compact, space saving device. Coupled with the easy-to-use touchscreen, the process security offering protecting us from operating errors, the quality of the documentation for inspection results and the ease of analysing these, I believe we have found an optimal solution on this line with Mettler-Toledo, and I could even extend the list to include all the advancements which have come about over the past twenty years".

For further information, see: www.mt.com/pi-pr 

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BNX: LOW PRESSURE AND REVERSE FLAME STEAM BOILER

The BNX low pressure and reverse flame steam boiler, with steam drum technology, provides the production process saturated steam with the right degree of humidity which, in contact with the product, maintains the fragrance and browning features. The perfect relation between content and exchange surface ensures maximum reliability and high performance.

icicaldaie.com





RUMMO IS BORN AGAIN THANKS TO UNIQUE PARTNERS

The combination of multiple skills gives rise to customized and efficient projects. ICI Caldaie proves to be a precious partner for energy efficiency paths

In October 2015, severe weather conditions hit the Sannio area in the Campania region. The heavy rainfall caused the overflowing of three rivers – Calore, Tammaro and Sabato –, covering the industrial area of Ponte Valentino with water and mud. The storm violently hit the historic Rummo pasta factory, destroying the machinery, damaging the raw materials and stopping production.

Despite the irreversible damages, the management never considered the idea of shutting down. Thanks to the determination of its employees, about 150, and with the help of the Web, a spontaneous campaign of solidarity began on the social networks, prompting consumers and supermarkets all over Italy to buy Rummo products.

#SAVERUMMO IS ICI CALDAIE'S CONTRIBUTION

The hashtag #saveRummo went viral and the brand made fun of the tragedy with the slogan “water never softened us”. Rummo is a family-run business that has been producing durum wheat semolina pasta since 1846, exporting it to 45 countries all over the world and continuing to do so for a long time thanks to both the management and employees’ hard work and passionate commitment. Other invaluable protagonists in this history of rebirth are the many partners with whom the pasta factory works – qualified and reliable professionals who have supported the cause from the very beginning. Among them is the Venetian company ICI

Caldaie, which has contributed to the energetic improvement of the factory with its expertise.

The beginning of a successful collaboration

The year after the flood, Rummo decided to improve the modernization of its plants with the desire to significantly reduce primary energy consumption yet maintaining its high-quality standards.

To achieve this ambitious goal, Rummo decided to turn to an important ESCO (Energy Service Company) operating in the industrial sector, S4E System (www.s4esystem.it). This company had been working for some time with





ICI Caldaie, an Italian boilers and steam generators manufacturer based in Verona. S4E System soon promoted the beginning of a wider collaboration between Rummo and ICI Caldaie, being it a company at the forefront in the Italian scene. Since the beginning of the new century, ICI Caldaie has been working on the research of possible alternatives in the energy sector, aiming at reducing carbon dioxide production and building effectively sustainable plants.

To do so, ICI Caldaie has always relied on the collaboration with national and international partners, including research centres, universities and manufacturing companies, and on innovative methods (including design thinking, a person-centred process aimed at solving complex problems). ICI Caldaie, in fact, strongly believes that only through a multifaceted

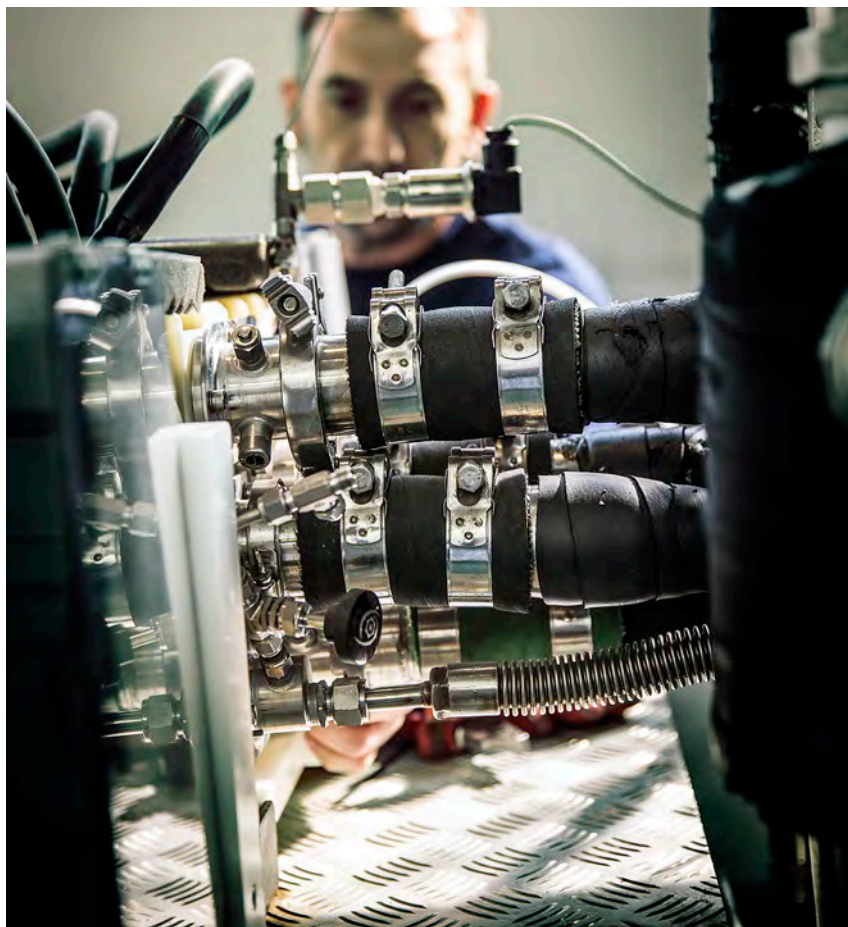
and versatile know-how it is possible to create a truly efficient and functional system. In the specific case of Rummo, the challenge was to continue to improve the quality of its production, reducing both energy costs and the company's environmental impact. Making use of each other's expertise, ICI Caldaie and S4E System developed several solutions that perfectly met the requirements of the pasta factory.

Interventions and results

The design and modernizing activity was performed throughout 2016 in collaboration with the plant technicians, and ended in 2017. The interventions mainly focused on the heating plant, but also involved the refrigeration plant, the compressed air plant, the vacuum plant and the general energy monitoring system of the heating and refrigeration plant, including the

Energy Diagnosis procedure according to the Legislative Decree 102/2014. The main intervention in the heating plant was to improve the production efficiency of superheated water. S4E System identified the main problem, detecting an ex-ante situation with an efficiency of 86% characterised by the presence of a boiler that used diathermic oil as an intermediate heat transfer fluid for the production of superheated water at 140°C.

On that specific boiler, there was a combustion air preheater. It was thus decided to improve the efficiency of superheated water production by introducing an ICI boiler ASGX EN 6000 superheated water boiler of 6 MW, equipped with economizer for heat recovery on flue gases and characterized by a nominal useful efficiency of 94%. To date, the boiler working on the



three pasta production lines in Room 2 produces at full capacity about 50% of the nominal power. This translates into a methane consumption saving of 200,233 Sm³/year, corresponding to about 58,000 €/year. The new system configuration also eliminates the diathermic oil circulation pump (diathermic oil pump Q=400mc/h H=35mt c.l. Pel ass= 45kWel) with a consequent electricity-saving equal to 356,400 kWh/year, about 28,500 €/year.

The energy efficiency path has thus produced the expected results: lower costs and reduced environmental impact. Overall, the intervention conceived by S4E System and carried out through the introduction of an ICI Caldaie boiler has led to saving about 234 TOE/year, a cost reduction of about 86,500 €/year and a decrease of about 520.86 tons of CO₂. The energy improvement process is not limited to this but has involved other sectors with excellent

Annual savings in the Pasta Rummo's plant thanks to the interventions ICI CALDAIE and S4E



TOTAL ECONOMIC SAVINGS

154.100 €/year



TONS OF CO₂ SAVING EVERY YEAR

800 Ton/year



equivalent to the emissions of 100 medium-sized cars that make 65,000 km



TOTAL POWER SAVING

1.202.359 kWh/year





results. In the refrigeration plant, for instance, a reduction in energy consumption for the production of chilled water has been achieved by changing the system configuration and improving the efficiency of chilled water production by achieving an EER of 4.5. This result was made possible thanks to inserting refrigeration units with screw compressors under inverter and replacing the plate heat exchanger with direct exchange and mixing hydraulic disconnector to work

at the same temperatures as the cooling tunnels of 14°C. The electricity saving is equal to 282,972 kWh/year, equivalent to about 22,600 €/year, i.e. 93 tons of CO₂ less released into the atmosphere. As for the compressed air power plant, the ex-ante situation was based on fixed speed compressors. These were replaced by inverters compressors, which resulted in an electricity saving of 30%, about 325,387 kWh/year, corresponding to about 26,000 €/year and a reduction of about 107.38 tons of CO₂. Finally, in the vacuum plant, the vacuum pump has been replaced by a liquid ring pump cooled by the chilled water produced by the Fridge Units with an air-cooled pump.

This replacement has allowed a saving of electricity of 30 kWel in addition to the non-use of chilled water for cooling, which means a saving of electricity of 237,600 kWh/year, equivalent to about 19,000 €/year and about 78.41 tons of CO₂ less released into the atmosphere. S4E System has also introduced an energy monitoring system for the heating and cooling plant, and also installed switchboards with PLC and digital interface to replace the previous electromechanical switchboards with no digital interface. In 2019, Rummo commissioned S4E System to carry out and transmit the Energy Diagnosis procedure according to the Legislative Decree 102/2014.

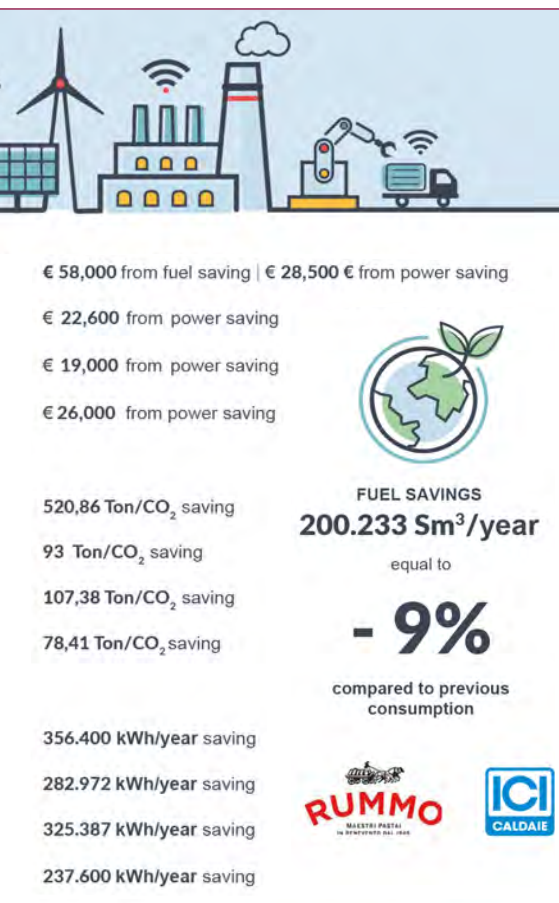
From a critical situation, the right partner helps rise to success

When the client's initial needs are fully met, there is no question of success. Success is made possible by the vision of those companies that no longer think themselves in terms of simple producers, from an individual perspective, but see the project on a larger scale. Only if driven by the desire to achieve a comprehensive solution one can establish partnerships with other companies that have different specializations and bring together multiple skills to develop complete projects.

With this ambition in mind, a company like ICI Caldaie collaborated in the energy improvement process of another company, in this case Rummo, not simply offering its boilers, but participating in a design process that involved many other areas. Starting from a specific urgency, making useful energy-saving actions, it has been possible to create a condition of saving in a wider sense, making the company sustainable while maintaining the high-quality standards of its efficiency and productivity.

This story teaches us that with the right partners, it is possible to create not only a product but a complete and innovative tailor-made system. 🏢

www.icaldaie.com



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

The 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 com-

pany specialized in food-industry washing systems – has seized the 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 an intense year, 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/offloading 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 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.

Colussi Ermes is continuously innovating to improve your safety. 🏠

www.colussiermes.com

DYNEO+ FROM NIDEC LEROY-SOMER

Significantly reduces the energy consumption of the industrial refrigeration process

Nidec Leroy-Somer, the world specialist with a wealth of experience in drive solutions for industrial refrigeration, has for more than 40 years provided refrigeration professionals with its motors and speed drives for improved productivity. Its latest development, the Dyneo+ range of IE5 synchronous reluctance permanent magnet (PM) motors, with rare earth free rotor, offers multiple advantages for driving screw compressors, piston compressors, circulation pumps and condensers, be it in terms of energy efficiency, performances or reliability.

Companies that use industrial refrigeration equipment have long been aware of the impact that the power consumption of a refrigeration installation can have both on energy bills

and on the environment. The cold compressor, at the heart of the system, remains the most energy-hungry element, and can represent up to 80% of total power consumption. Electric motors, which are ubiquitous in the cold chain, constitute the main source of potential energy savings.

Thanks to its expertise in the design and manufacture of industrial drive systems, Nidec Leroy-Somer offers a wide range of drive solutions at fixed or variable speed, providing significant energy savings on the refrigeration market.

In addition to these complete and well-established ranges for this sector, Nidec Leroy-Somer has just launched its new Dyneo+ synchronous reluctance PM motor, ranging from 11 to 500 kW, for speeds of up to 4500 rpm. Specially designed for

variable speed, this motor offers an economic and ecological solution for the requirements of industrial refrigeration.

To address the energy transition challenges, the European Parliament recently voted, on 8 October 2020, in favour of a new ambitious climate law targeting 60% reduction of greenhouse gas emissions by 2030, and climate neutrality by 2040. As part of this approach, the latest Commission Regulation (EU) 2019/1781, applicable to electric motors and variable speed drives, defines and schedules increasingly stringent efficiency levels for machines sold on the European market. Every industry - and in particular the most energy-intensive ones - is affected by these developments, designed to help protect the environment, not least con-





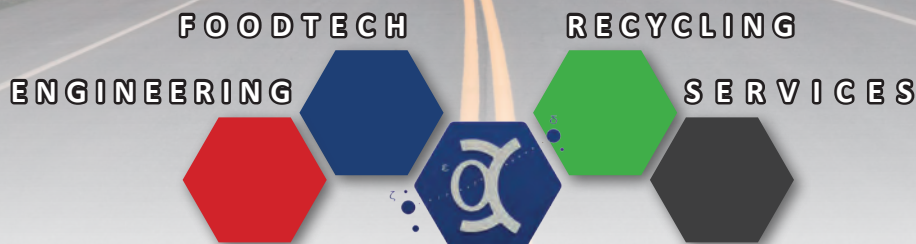
ORION ENGINEERING

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Soluciones de tipo "Tailor-made" para la agroindustria

Combinando sostenibilidad y el cumplimiento de los estándares EHEDG en cada solución



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Diseño de Instalaciones y Maquinaria
Ampliamentos de Equipos existentes
Desarrollo de prototipos

FoodTech

Consultoría Técnica en Agronegocios
Desarrollo de Soluciones Personalizadas
Servicio de Ingeniería Industrial
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Recycling Systems

Subproductos de la agroindustria
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Energía renovable de subproductos

Services

Asistencia Técnica nella Pre-temporada
Asistencia Técnica en la temporada
Suministro de Repuestos Originales
Repuestos Adaptados Garantizados



- Procesamiento de Tomate en Cold & Hot Break process
- Procesamiento de Fruta Mediterránea y Tropical
- Procesamiento de Vegetales y Hortalizas

Estamos especializados en el desarrollo y construcción de plantas piloto multiproductos para el procesamiento de frutas y hortalizas.



INNOVATION . ENVIRONMENTAL SUSTAINABILITY



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Via La Bionda, 6 (Quartiere Industriale La Bionda) - 43036 Fidenza (PR) Italy
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sidering that the cost of electricity is likely to climb significantly in the years to come.

With its IE5 Ultra-Premium efficiency level, Dyneo+ has all it takes to rise to this energy challenge, offering as it does substantive energy savings in real conditions of use over the course of the cycle, at variable speed and load, as is typical with industrial refrigeration, where needs fluctuate considerably according to season and production level.

Thanks to its energy performance, the Dyneo+ solution makes it possible to significantly increase the COP ("Coefficient of Performance", expressed by the ratio between refrigeration capacity produced and power consumption) of a refrigeration unit. As well as helping to reduce the carbon footprint, the range offers a TCO (Total Cost of Ownership) among the lowest on the market, and for rapid return on investment, generally in less than one year.

Dyneo+ motors are designed to operate exclusively with a variable frequency drive, allowing them to adapt to the speed of the machine being run and improve its performance

when operating in overspeed. This provides the benefit of additional refrigeration capacity for a given device, thereby avoiding having to start up another compressor during a production peak. Moreover, the Dyneo+ solution enables optimisation of the number of compressors for a given installation. Delivering precise speed and torque control in sensorless mode, it guarantees constant torque over extensive speed ranges, with no derating or forced ventilation.

Nidec Leroy-Somer has developed the Dyneo+ range based on the mechanical platform of its IMfinity® induction motors, known for their robustness and reliability. The use of proven components makes these new motors extremely robust and long-lived by design, thereby limiting the risk of refrigeration system failure.

What is more, Dyneo+ has been designed for ease of installation, simple setup and easy maintenance. Generating low rotor losses, the magnetic synchronous reluctance technology reduces maintenance costs, in particular by extending the lubrication intervals. Whether compact or IEC interchangeable, with aluminium or

cast-iron housing, or in IP55 or IP23 version, these motors are as easy to fit in new machines as they are to retrofit in existing installations as part of an energy optimisation project.

Dyneo+ is connected to the Systemiz interactive application, which provides a wide variety of digital services, including instantaneous access to all the product literature, and easy and intuitive drive setup by simply scanning the QR code on the nameplate.

With its "Made in Europe" and low carbon footprint credentials, the Dyneo+ motor is eligible for Energy Savings Certificates, also known as White Certificates, generating government aid through the energy savings made. This makes for easy financing, meaning considerably faster return on investment, on top of the accrued energy savings

Environmental compliance, energy performance and top-notch reliability: Dyneo+ motor represents a drive solution that is perfectly suited to the optimized productivity needs of industrial refrigeration. 🏠

www.leroy-somer.com





CONVEYORS

MH is an Italian Company with 30 years of experience in engineering and building conveyor lines for food packaging. It's product portfolio goes from conveyors for machine connection, elevators, mergers and whatever accessory may be needed to realize a turnkey plant.



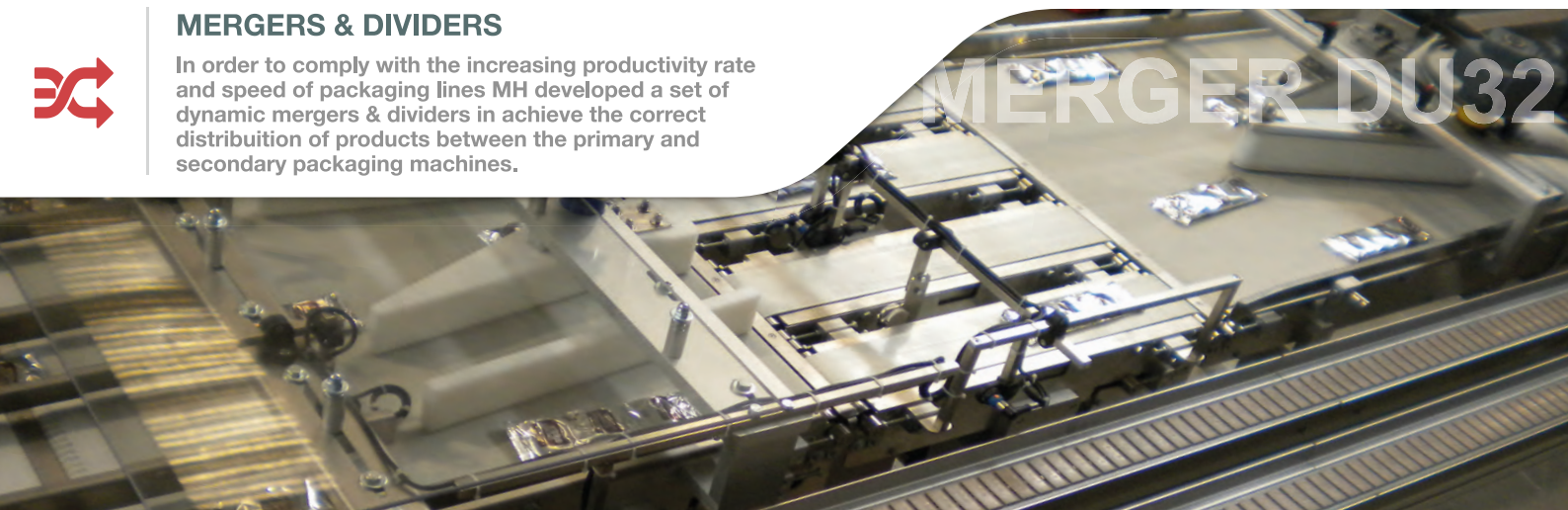
BUFFERING SYSTEMS

MH is specialized in buffering solutions LIFO zero pressure both with single or double spiral for packaged product or FIFO with multiple belt for the naked one.



MERGERS & DIVIDERS

In order to comply with the increasing productivity rate and speed of packaging lines MH developed a set of dynamic mergers & dividers in achieve the correct distribution of products between the primary and secondary packaging machines.



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

The 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-

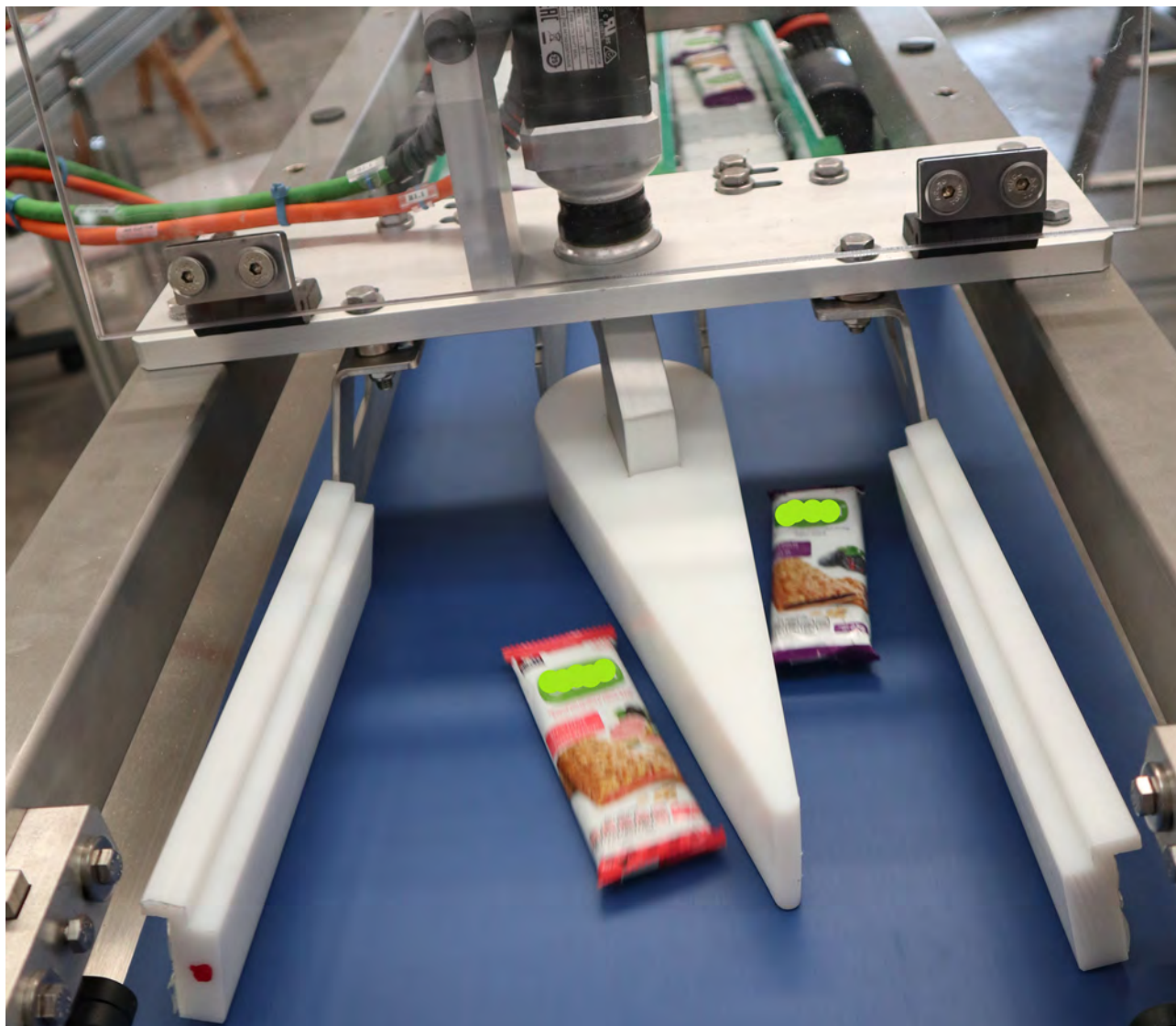
ear speed of the conveyor belts will also drop to the advantage of less stressed mechanics and ultimately more efficient lines.

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

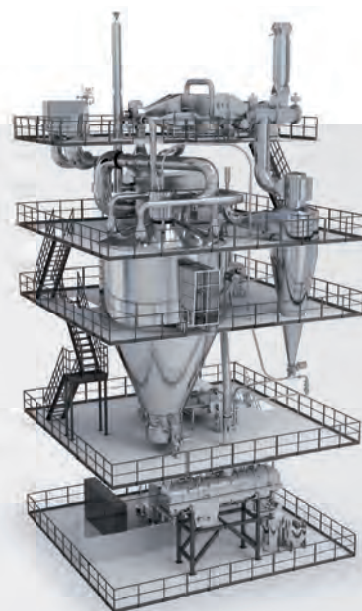




Mixed Flavours

GLOBAL PARTNER FOR **FOOD** INDUSTRY

The most delicious flavours come from an appropriate processing of raw materials. ICF & Welko is a worldwide supplier providing complete, turnkey and tailor-made plants for the food industry. Thanks to our specific know how on every process, we provide best performance automation solutions for the processing of food products such as milk, dairy products, coffee, tea, flavours and vegetable extracts.



I.C.F. & WELKO DRYING SOLUTIONS



IC.F. & Welko S.p.A. is a company based in Emilia Romagna, the Italian food valley. Since 1973 we have been designing, manufacturing and installing machines and equipment for different industries like food, chemical, pharmaceutical and others.

Thanks to our Know-how in the processing line, especially for dairy, flavors and beverage fields, we can provide turnkey and tailor-made solutions for offering to the end user an excellent powdered product with High Quality.

I.C.F. & Welko S.p.A., leading provider of equipment and turnkey solutions, can offer high technology for spray drying & fluidized bed drying, agglomeration and complete lines for instant coffee and dairy powder production. Each plant complies with customer's requirements providing/giving excep-

tional performances thanks to safety measures, an advanced automation level, a great operational flexibility and considerable energy saving. Our core business is based on the following process technologies:

Spray Drying

Equipment to dry liquids into powdery or granulated products

- Wide range of applications
- Fine and agglomerated particles
- Small scale and industrial size
- High degree of automation
- ATEX design

Fluidized Bed Drying

Equipment to dry, heat or cool powders or granules

- High operational flexibility
- Improved heat transfer efficiency
- Independent air flow, temperature and humidity control
- It can be used as post-drying stage

- Or as standalone equipment for cooling/heating

Agglomeration

Re-wetting equipment to agglomerate powders and mixtures into granules

- Wide range of applications with sugar-based mixtures with cocoa, milk, extracts, sport drinks, etc.
- Superior dispersibility of agglomerated products
- High organoleptic quality of the end product
- Continuous process for medium and large capacity production

CIP Units

Systems for processing equipment Cleaning in Place

- Different solutions for different needs
- They can be integrated in a wide range of production lines



knows that challenges are strategic opportunities and offers itself as the partner for your innovation, meaning a key partner for your success.

Our company has an innovated and fully equipped research-testing laboratory, which allows our customers to:

- simulate and test product behavior under processing conditions
- make the proper plant, machine and equipment choices
- fully understand product treatment characteristics
- identify process variables and necessary dimensioning and planning elements
- provide technological assistance for new solutions.

Our R&D lab is staffed by the most experienced and trained personnel available, whose work consists in ongoing research aimed at continuous upgrading and the increasingly better satisfaction of customers and stakeholders. 🏠

www.icf-welko.it

- Reliable, efficient and repeatable performances
- Reduction of production downtime
- Low water and detergent consumptions

and developing new technological solutions to cater to constantly-changing industry needs; our company

I.C.F. & Welko S.p.A. has always been strongly committed to Researching

ICF:WELKO
FOOD



B.S. SRL: FOOD MACHINE ENGINEERING

In 1980, in the heart of the Italian Food Valley, the company B.S. Srl was established in Parma, making the production of systems and machinery in the food industry and automation its core business. The growing need for innovation, the consolidated seriousness, and accountability that distinguish it, allow B.S. to develop and acquire know-how always updated and in the forefront of the food-tech trade.

By creating partnerships with customers and carrying out targeted market analysis, BS can efficiently and accurately select the needs of the sector, and then design and implement spe-

cific customized solutions, capable of achieving high standards of performance and production quality.

To the constant technological development, characterized by an exponential speed of change, B.S. answers with strong acceleration, commercializing modern and technological machinery, able to anticipate the future trend, ensuring high performance and quality.

Among the various solutions that BS offers, the complete lines for the filling of lasagna in baskets of different sizes and materials with productivity from 10 pieces/min. up to 50 pieces/min. and more, certainly stand out.

The plants of variable length can be

linear or rotary, completely 'automatic' or semi-automatic, and are composed of various machines including tray unstackers, sauce and cheese dispensers, and various equipment. Size changes are very fast because they are managed directly from the operator panel, making line downtime practically non-existent. BS has been integrating robots into its production lines for years, as in the Majestic line which, properly equipped, can prepare lasagne, cannelloni, and gnocchi alla romana in fully automatic mode. The robots in this case have the task of loading with special patented tongs sheets of raw or pre-cooked pasta, cannelloni, or gnocchi alla romana.

'Thinking robot' is the innovative target of B.S., which aims to take an active part in the market globalization movement towards industrial and daily automation.

In addition to designing innovative machines, BS always takes into account the profile of hygiene and safety and for this reason, all the machines it offers on the market are also equipped with technical devices and advanced systems of rapid, effective, and complete sanitization so that, without the use of keys, all the components in contact with the product can be disassembled. In the panorama of the food industry, where technological development is expressed at very high levels and pushed towards exponential growth, the mission of B.S. is to create machines that not only ensure quality and safety but also give the possibility to offer the market "design" and "custom" food products, clean and aesthetically appealing, since the image is playing an increasingly important and decisive role in the choice of consumers. 🏠

www.bsparma.it





hamburger



pizza



sandwiches



ready meals



ice creams



ice cream cakes



lasagna

MACCHINE ALIMENTARI FOOD MACHINE ENGINEERING



Majestic Line

www.bsparma.it

B.S. Srl: Via Minozzi, 3/A - 43122 Parma - Italy - info@bsparma.it

CHIARAMELLO SOLUTIONS FOR TRANSFERRING AND MIXING FLUIDS IN THE FOOD INDUSTRY

CHIARAMELLO 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



Chiaramello Industria s.r.l.



FOOD
processing

SOLUTIONS for transferring and mixing fluids in the **FOOD INDUSTRY**



Pompe Volumetriche



Miscelatori



Sublimatore

NEW SUCCESS FOR AKOMAG

Recently the company delivered, installed and tested a new machine intended for washing recycled glass bottles. The machine for the PepsiCo group is a Hydra 8.2, characterised by a very high production: 37,500 bottles/h.

The new model, the pride of mechanical Made in Italy, reaches a mechanical efficiency equal to 99.4%, successfully exceeding the standards required by the customer in the contractual phase.

With this new provision, Akomag confirms itself once again as world leader in the construction of glass bottle washers.

The bottle washer has been specially designed in order to minimise the environmental impact, with particular

attention to water and steam consumptions, and to the duration of the detergent bath. The completely automated wash cycle includes an initial bottle-emptying station followed by a pre-wash spraying and first pre-soak bath that significantly reduces detergent bath pollution and markedly decreases consumption levels.

In the pre-soak area the project also provides for the installation of a belt filter that allows to automatically remove the main impurities typical of recycled bottles (straws, paper, cigarette butts, for instance).

The washing of bottles is completed with the internal and external high-pressure detergent wash sprays, using self-cleaning and self-centring rotating nozzles.

Mains water for spray-rinsing

In designing Hydra 8.2, Akomag has focused on the final rinsing sprays using mains water. The expedients developed during the design stage have allowed to achieve extraordinary results.

By installing a special valve with integrated flow meter on the mains pipe (controlled directly by the control panel), it is possible to detect the instantaneous and daily water consumption required for the proper washing of the bottles.

With pride and satisfaction, Akomag technicians declare that thanks to the new design the new machine has a water consumption equal to 0.098 litres per bottle. A lower value than rigidly imposed in contractual phase



Lavabottiglie "double-end"

AKOMAG

GLI SPECIALISTI DEL PACKING

The packing specialists

Dal 1994 avvolgiamo, movimentiamo, pallettizziamo e organizziamo lo stoccaggio del magazzino.

Since 1994, we wrap, handle, palletize and organize warehouse storage.



BONDANI
PACKING SYSTEMS
Sistemi su misura per packing, movimentazione e palletizzazione

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info@bondani.it - bondani.it



FURY SL doppia



by the customer. The supply is completed with many other technological innovations, including sensors for slowing down or stopping the machine in case of missing or clogging of the bottles on the conveyor belts; synchronization systems of the bottle washer speed with that of the filling monobloc; control and introduction of detergent and additives in the washing bath and of sequestrants/disinfectants in the spray tanks; self-cleaning filters in the tanks; automatic bottle loading and unloading, perfectly synchronized with the movement of the main chain.

Akomag is a flexible and dynamic company that bases its policy on customer satisfaction, the quality of its systems, its assistance services and technological innovation.

Akomag has been working for several years in the bottling sector and thanks to the proven experience developed in this field, the company can guarantee to its customers maxi-

mum yields, user-friendly operation and minimum operational costs, as well as long working life of its machines built with top quality materials. From the province of Parma, Akomag aims to meet the needs of all those who are looking for high quality products. 🏭

www.akomag.com



SIRA

AKOMAG



AKOMAG



Intelligent, High-Temperature (Up to 90°), Hi-Flow, Variable Pressure



EP50-75.SRT

The most advanced, flexible mobile cleaning platform in the world

It washes, foams, & sanitises and has the power to clean drains, chutes, floors (with added floor cleaner), roofs, chillers, overheads, connect to CIP sprays and more.

It can even be connected to power a tub & crate washers. There is the option of adding time saving CIP spray bars and high-pressure rotors. If you would like to talk to one of the engineers about the Euro Pumps mobile cleaning platform or how any of our CIP extras can be customised to suit your individual needs, call us today.

Supplied ready to work

Your Euro Pumps EP50-75.SRT mobile cleaning platform arrives ready to go to work with all hoses and attachments.

- 25m Heavy Duty Hose with ½" BSP male tails
- Suttner ST-2320 high pressure gun with swivel
- Triple-turbo-lance with male quick release
- 15/100 Brass Nozzle with male quick release
- 15/70 Brass Nozzle with male quick release



Fan Cooled to Run Hotter Longer

Euro Pumps allows you to clean on demand anywhere in your plant, inside or outside. It will work reliably with water temperatures exceeding 85°C.



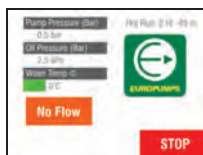
Perfectly balanced, move with one hand

It's perfectly balanced for easy movement around the site and will work off a standard 20 or 32 amp three-phase connection.



Built-in protection for longer life

The EP50-75.SRT Pump system PLC monitors built in Water Inflow, Oil Temperature and Oil Pressure sensors for asset protection and longer platform life.



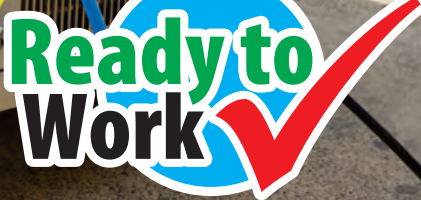
More information

Euro Pumps EP50-75.SRT the smarter platform that allows you to clean faster, with better flow and at higher temperatures.



OPTIONAL EXTRAS

- Suttner ST-76 Foam Blaster with male quick release
- Floor Cleaners & Spray Bars



CLEAN BETTER, SAVE MONEY

Yes, 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 or call us on +61 409 123 850 🏠



THE TOP QUALITY INDUSTRIAL MIXERS

Escher Mixers specializes in the production of mixing machinery for the bread and pastry-making sectors. Over the years we have gained specialized knowledge that has allowed us to develop machines and solutions to meet the needs of a variety of clients and different types of markets. Our machines are renowned for their sturdiness, durability, accurate finishes, and for the quality of the dough they produce.

BAKERY Equipment

We propose Spiral and Wendel mixing concepts. Both solutions can be with removable bowl through a Patented® bowl locking and motion system MR-MW Line or bottom discharge system MD-MDW Line with conveyors belts or bowl lifters which can be matched with automatic solutions with linear system and storage of the resting bowls in vertical or linear storages, rotating automatic systems-carousel, scraps recovery systems, transverse hopper systems and star-cutting / guillotine / roller with guillotine and other customized solutions.

PASTRY Equipment

The range of Planetary Mixers with double tool for the pastry industry is characterized by the lack of oil lubrication systems, improving hygiene and reducing machine maintenance. A wide range of interchangeable tools is available for different uses and doughs. For industrial productions, we have developed the PM-D Line with independent tool movement, with individual speed regulation and the possibility to reverse the motion. While the PM-DB Line with the bridge structure allows automatic insertion of the ingredients, air insufflation to reduce mixing times and increase volume, dough processing with negative / positive pressure and cleaning through CIP washing system. Various bowl discharge options are available.



www.eschermixers.com

ESCHER

mixers

20

2000
2020
ANNIVERSARY



EXPERTS IN CREATIVITY, INNOVATION & SUSTAINABILITY



A quality designed to last. This is Lawer's mission statement, a Biella based company, internationally recognized for the excellence of powders and liquids dispensing systems. This excellence begins with a preliminary analysis phase, to the equipment commissioning, to ensure safe and automated systems, operated by a high-class software which is able to adapt itself to the manufacturing companies' changing needs. Quality is also the ability to provide the most efficient service and maintenance, being always on time and close to its customers thanks to a worldwide presence.

Since the beginning Lawer has always implemented the strategic decision to invest on people, research and new technologies. Thanks to the analysis and development of the technical department the company

shows its strong projecting capabilities. The task of finding the most innovative technical solutions for the systems continuous improvement is essentially provided by a qualified and professional team, which is constantly updated and trained with new technologies.

For this reason, Lawer continues leading in an increasingly competitive market. Lawer's dosing systems automatically weigh all the powder and liquid ingredients present in the recipes and batches, where the micro dosage of ingredients is required.

All Lawer's systems are the result of Lawer's 50-year experience and know-how in the design and manufacturing of dosing systems for many different applications in different types of industrial productions.

With the automatic powder dosing systems, it is possible to grant:

- **The highest quality of the finished product**
- **The highest weighing precision**
- **Replicability of the recipes**
- **Right balance of raw materials**
- **Production management, efficiency and cost reduction**
- **Complete confidentiality of know-how**
- **Optimisation of production, less production time**

More time/less costs, the automatic dosage system reduces the production time with consequently recovering of efficiency and marginality.

Confidentiality, it is possible to keep secret the composition of the recipe and protect your creativity and your know-how.

Control, it is possible to monitor and verify the daily production, monthly production, the consumption of each



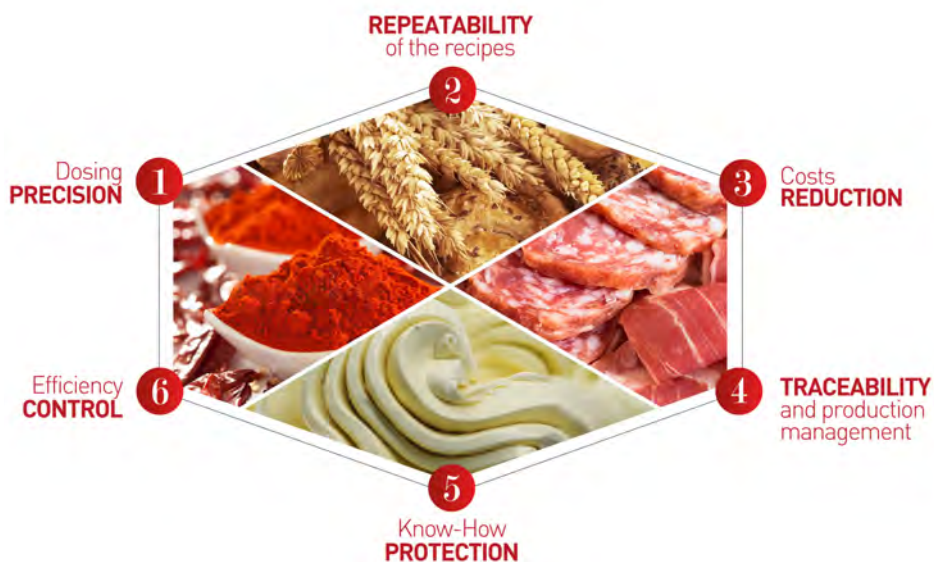
single raw material or each single recipe accessing to a protected area.

Replicability, in a fully automatic way, the system repeats countless times the error free weighing of the micro-ingredients of the recipes, guaranteeing constant quality at all times.

Less errors, less cost, higher quality of the finished product.

Traceability, all the weighing operations are saved and made available for a perfect traceability.

Saving, the systems contribute to reducing errors and time in the recipe preparation, thus reducing costs of production and personnel.



Lawer can supply different models of Automatic Dosing Systems, with sin-

gle, double and multi scale technology (**mod. UNICA TWIN, UNICA HD & SD** and **mod. SUPERSINCRO**), with different levels of accuracy (**1gr – 0.1 gr or 0.01 gr**) and different capacity of powders' storage (from **50 lt** up to **300 lt**. capacity of each hopper). Lawer is the ideal partner for the automation of the powder micro-ingredients dosing. 🏭

www.lawer.com



LAWER®
dosing & dispensing systems

FOOD
processing

TROPICAL FOOD MACHINERY STRENGTHENED ITS PRESENCE IN COSTA RICA

Last year was a tough one for no other, but that didn't stop Tropical Food Machinery from working hard and getting things done. Indeed, the company has strengthened its presence in Costa Rica by opening a new office in the country's capital San José.

Founded in the late 1970s, the company currently boasts an operating branch in the Brazilian state of Minas Gerais, two-fruit processing plants located in the north of the country, as well as liaison offices across the Asia-Pacific and West Africa regions.

The goal is to improve the company's product offering across the Central American, Caribbean and Mexican areas. "We see a lot of opportunity to shore up our commercial presence in these growing markets, and they can benefit from working with a partner with over four decades experience in the field," said Stefano Concari, Tropical Food Machinery's general manager.

Costa Rica is strategically located to help the company expand in the region. Despite being a small country compared to other tropical fruit producing ones in Central America, the nation is the largest exporter of pineapple and the fourth largest banana exporter in the world – two fruits making up ever larger shares of our daily diets.

Tropical Food Machinery has also set up shop in the Ashanti region of Ghana, where it opened a new multi-fruit facility built last December. The event was attended by the President of the



CERERE6000, The New Banana Peeler

The goal is to improve the company's product offering in Central American, Caribbean and Mexican areas





Forced Circulation Evaporator

Republic of Ghana, Nana Addo Dankwa Akufo-Addo and the King of Ashanti Otomfuo Osei Tutu II, as evidence of a mutual interest in developing a strong relationship between the two countries in the agribusiness sector.

The new plant will process no less than 72 tons of fruit – mango, pineapple, tomato and watermelon – per day in order to meet the domestic market needs, but also to exports to West Africa and beyond. The facility also boasts a 240-hectare orchard as well as a network of suppliers between the regions of Ashanti, Bono, Volta and Ahafo that would lead to the creation of over 100 new direct and 1000 indirect jobs. The project is part of “One District, One Factory,” a government-backed initiative whose goal is to set up at least one industrial plant in each of the region’s administrative districts in partnership with the private sector.

More recently, the company has been awarded the International FoodTec Award for pioneering development in terms of innovation, sustainability and efficiency by the Deutsche Landwirtschafts-Gesellschaft – German Agricultural Society and its specialist partners. The renowned technology prize was awarded to 20 innovative projects from the international food and supplier industry. Tropical won the Silver category thanks to its recently patented automatic banana peeler Cerere 6000.

The prize further demonstrates Tropical Food Machinery’s growing com-

mitment to advancing sustainability through research and development. At the company, every line is designed in-house and then built and tested before every and each delivery. This makes for a complete control over the process, enabling the creation of cutting-edge solutions aimed at the reduction of the environmental impact across the entire supply chain. The effort aligns with the firm’s own green manufacturing practices and dedication to helping its customers make their products without hurting the planet. 🏡

www.tropicalfood.net

TROPICALFOOD
M A C H I N E R Y

Ideas, solutions and plants for the food and beverage industry



Aseptic Tanks



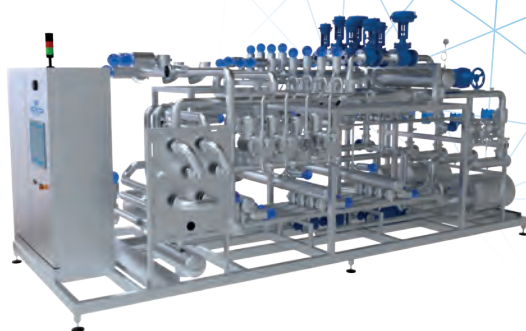
UHT Sterilization Plants



Mixing and
Carbonating Units



Pasteurization Plants

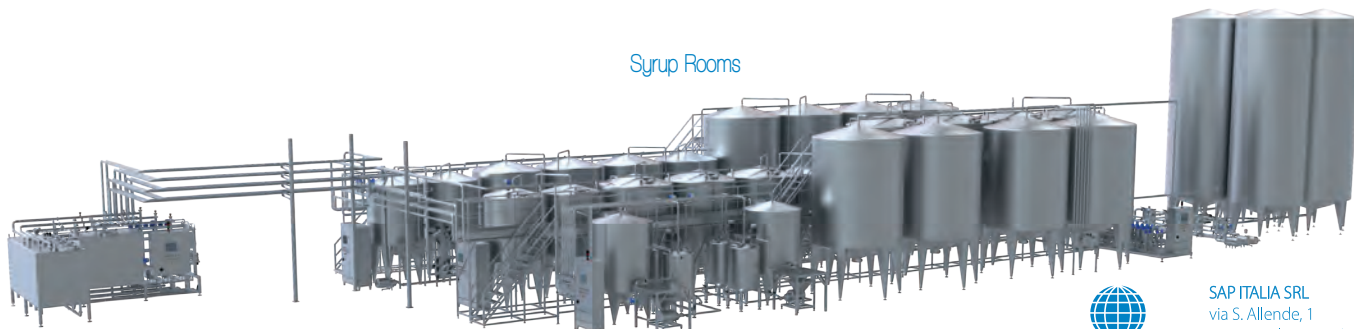


Cip Cleaning Plants

Continuous Sugar
Dissolvers



Syrup Rooms



ZACMI: PISTON-FILLING PERFECTION

Experience + innovation = class-leading filling solutions

Established in 1954, ZACMI specialises in the design, construction and installation of tailor-made filling & closing lines for the food & beverage industry. The company's expertise is backed by comprehensive and long-standing industry and application knowledge, coupled to extensive research & innovation.

The company's popular Piston Filling machine is one element of its port-

folio that has benefited from recent development – and now offers even more flexibility and capability for demanding food and beverage ap-

plications. With over 700 machines installed in 38 countries, it really is the ideal solution for medium-to-high-speed filling applications.

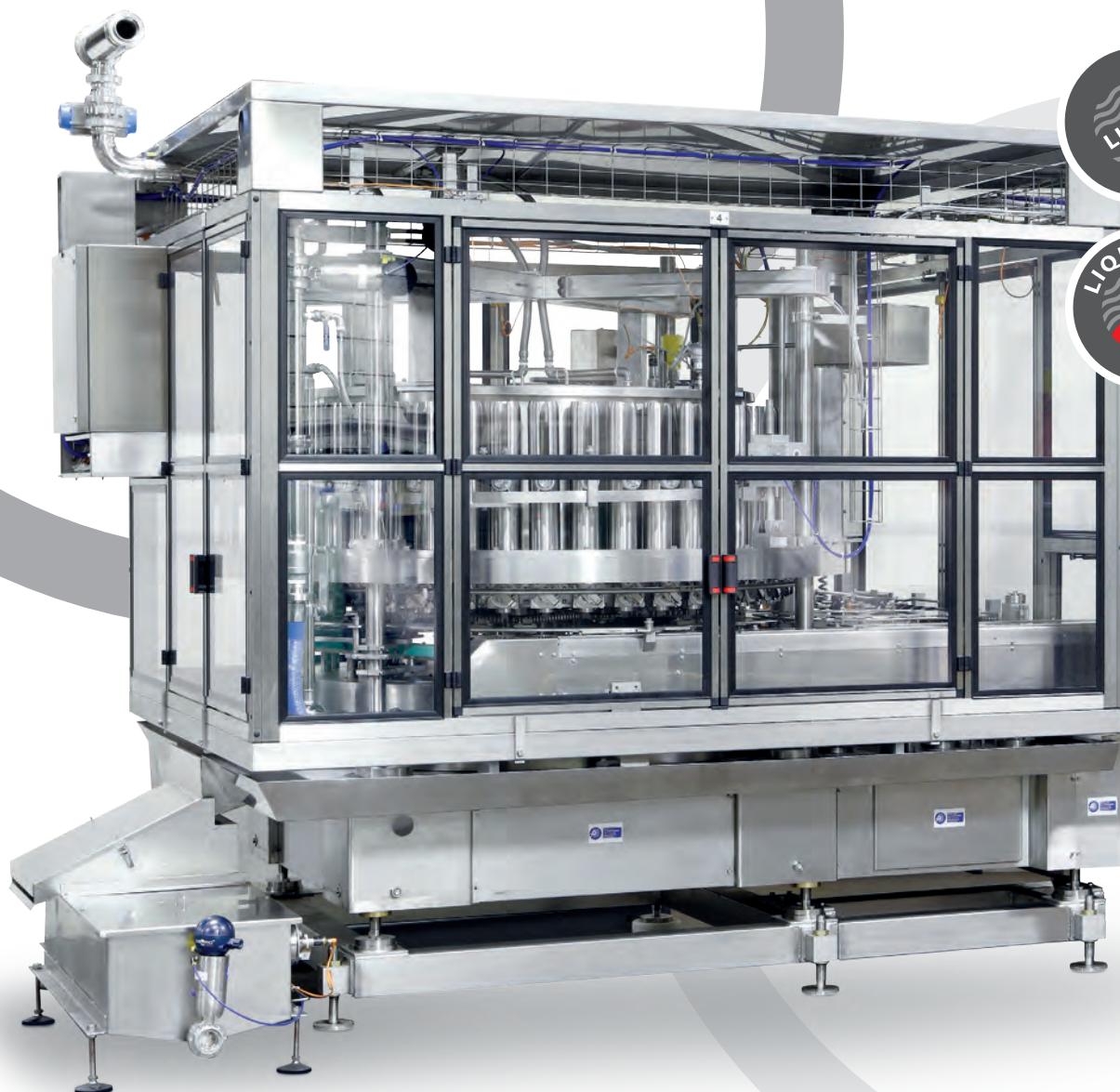
ZACMI®
FOOD & BEVERAGE PLANTS

www.zacmi.com



ZACMI: PISTON-FILLING PERFECTION

Experience + innovation = class-leading filling solutions



ZACMI is the ideal solution for
medium-to-high-speed filling applications with over

700 Piston filler machines
installed in **38** countries



ZACMI®

FOOD & BEVERAGE PLANTS

www.zacmi.com

The machine is designed for liquid and viscous products – with or without suspended solids – and is used to fill a wide variety of different container sizes and formats popular across the Asian market, including glass/plastic jars & bottles, steel/aluminium cans and cartons.

Rotary and patented vertical valves allow users to precisely tailor machines to specific applications, where highly accurate, automatically controlled volume doses are needed.

With due changeovers, the machines can cover a filling range from 100 to

5,000 g at speeds up to 1,200 cpm. Available either as a customised standalone unit, or mechanically (or electronically) synchronised and integrated into a line or monobloc configuration, the machine, with its automatic recipe selection, delivers increased OEE, reliability and problem-free efficiency.

The use of high-quality materials, its uncomplicated design and industry-proven components reduces maintenance costs, while a newly patented automatic system that avoids the manual removal of the rotary valve from its housing, significantly reduc-

es the downtime for CIP/WIP too and represents a disruptive innovation in the long-stable world of rotary valve piston fillers.

For further info on this new feature, please contact us at info@zacmi.it

All backed by Industry 4.0-ready features, remote machine access, augmented reality-capable online customer care and '100 % customer satisfaction' after sales. ZACMI your number one choice for filling applications. 🏠

www.zacmi.com



TORQUE LIMITER ECE IN A VERY FLAT DESIGN

Robust and perfected safety without compromises

Mechanical Torque Limiters are used in all kinds of technical application areas. Their job is the protection of products and expensive devices.

Torque Limiters react very sensitive to the smallest increase of torque and disconnect the drive from the following masses in a split second. That's why they are also called "Safety Couplings". The disconnection is forced, that means it has no effect on the function in case of an electrical power outage. A reason for a torque overload is for example the accumulation of material. That's why torque limiters are also called overload clutches.

The special thing about Type ECE is the axial short design, which requires a very small installation space. This simple and robust functional principle has thousandfold proved itself. It has a reliable function and still needs just few parts. High-precision torque limitation is guaranteed with the use of special disc springs, they also enable a very wide torque range without changing the disc spring. The perfected functional principle cuts the torque between the engine and the machine within few angle degrees. The couplings have a fixed point switching. That means one switching point per turn. That is important to retain the reference point of the machine.

To stop the drive immediately in case of an overload, it is advisable to place a proximity switch to the disc spring. The disc spring moves while the torque limiter is disconnecting the drive from the machine. The signal from the proximity switch can be used for the drive control to stop the engine immediately.

Type ECE has a keyway for the torque transmission between engine and torque limiter. Chain wheels, belt pulleys etc. are mounted on the engine shaft and screwed on the flange ring of the ECE for the torque transmission.

The torque limiter ECE is available in 14 sizes, and torque ranges from 2 Nm to 900 Nm are possible. 🏠



Professionals in online auctions
for the food and beverage industry

Online auction machinery for the food industry on behalf of
Fountain Group Ltd in Nordelph (UK)



Online auction machinery for the food industry
in Mitchelstown, Co. Cork (IE)



Online auction machinery for the food industry on former location
Deli-Pack in Bostel (NL)



Online auction machinery for the food industry
in Ystad (SE)



Online auction meat processing machinery on former location
Skivarp Meathouse in Skivarp (SE)



PRODUCTION AND INSTALLATION OF FRUIT AND VEGETABLES PROCESSING LINES

Navatta Group emerges on the market as a valid global partner of equipment and lines for the integrated processing of fruit and vegetables, providing proven and innovative solutions for a complete range of lines with capacities ranging from 3 to 120 t / h of fresh incoming product.

Manufacturing range

NAVATTA GROUP manufactures and commissions processing lines, systems, equipment for fruit, tomato, vegetables such as:

- Peeled / diced / crushed tomatoes, tomato sauces and purees, tomato paste, all filled into any kind of package or in aseptic;
- Diced, puree, juices (single strength or concentrated) from Mediterranean / tropical fruit, all filled into any kind of package or in aseptic;
- Fruit crushing lines from IQF, frozen blocks and frozen drums;
- High yield patented fruit puree cold extraction, fruit purees / juices equalized in aseptic;
- Wide range of evaporators to produce tomato paste, Mediterranean and tropical fruit concentrates puree, multi-function evaporator, falling film and forced circulation;
- Evaporators for coffee and milk: evaporation before spray driers, freeze dryers or other dryers
- Evaporators for cogeneration industry (waste treatment);
- Aseptic sterilizers;
- Aseptic fillers for spout bags/ spout-less bags from 3 to 20 liters, Bag-in-Drum 220 liters, Bin-in-Box / IBCs 1.000 – 1.500 liters;

- Spiral pasteurizer and cooler;
- Formulated products productions (jam, ketchup, sauces, drinks) starting from components unloading to dosing, mixing, mechanical / thermal stabilizing, to filling into any kind of package or into aseptic mini-tanks;
- Processing pilot plants;
- Vegetables processing as receiving, rehydration, cooking, grilling and freezing.

Navatta Group's headquarters and the two production units are located

in Pilastro di Langhirano, Parma, with a total production area of 10,000 square meters.

Navatta Group's VISION (Passion drives us towards higher targets in terms of technologies, products, services) and MISSION (To constantly increase Client's levels of satisfaction and fidelity) summarize Navatta Group's roadmap. 🏠

Visit:
www.navattagroup.com



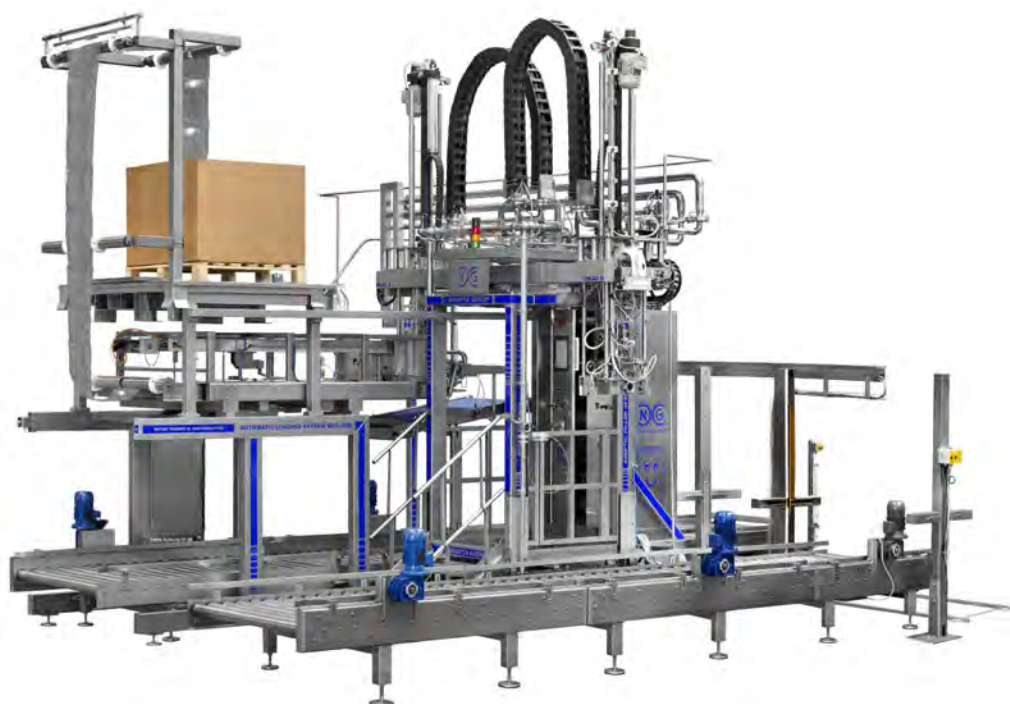
Tropical and Mediterranean fruit processing line for the integrated processing of both tropical and Mediterranean fruit: washing, filtration of washing water, manual sorting, brushing, preheating and de-pulping of the mango, shredding tropical and Mediterranean fruit, extraction of the puree. Continuous washing of the system



NG
NAVATTA GROUP
Food Processing S.r.l.



Multi effect falling film evaporator for the concentration of juices, state-of-the-art design for maximum efficiency and best quality of final product



Double head aseptic filler mod. AF2PD for palletized drums and 1.000 / 1.500 liters bins with automatic loader for 5-10-20-220 liters bags

XNEXT PRESENTS A NEW GROUNDBREAKING INSPECTION SYSTEM

specially designed for filled pasta production

Ravioli is one of the cornerstones of the Italian culinary tradition and often brings back memories of the best family meals. However, the first major difficulty when inspecting industrially produced filled pasta is due to the complexity of the food's composition. So how can you make the final product as safe as possible? And what is the best inspection system on the market?

Currently, the inspection systems in use on production lines can be divided into Metal Detectors and X-ray Scanners. The first are used to only detect the presence of metal contaminants. Whereas, X-ray scanners detect high-density materials such as metals and stones, but are ineffective at detecting low-density

foreign bodies such as wood, insects and plastics, and rubbers.

Both types of inspection systems have considerable limitations in their ability to detect foreign bodies, and are often ineffective for the actual needs of production lines. Today, this paradigm is completely overturned by Xnext's real-time inspection systems, which, thanks to the innovative XSpectra technology, finally provide an effective solution for all contamination that can be found on today's production lines.

XSpectra is a new generation X-ray inspection system made by Xnext that differs from competing systems for its ability to detect the presence of low-

density foreign bodies, which makes it unique in the world and extremely effective even for non-uniform products. like ravioli and tortellini. XSpectra is totally designed and manufactured by Xnext in its HW and SW components and is therefore adaptable to the customer's online inspection needs.

XSpectra performs multispectral analysis for each product image point and the result is processed by the inspection SW which detects point differences due to product non-uniformity present in the case of foreign body contamination.

XSpectra's inspection SW uses Neural Networks specifically designed for this application: this is an added benefit



XNEXT

ADVANCED INSPECTION TECHNOLOGY

TAILORED SOLUTIONS FOR ALL YOUR INSPECTION NEEDS





to the already significantly important multispectral analysis, as the networks learn to recognise compliant products and are therefore able to classify the

anomalies that the multispectral analysis highlights.

Some of the results of these analyses are presented in the images in the ar-

ticle, the foreign bodies highlighted are of low density and not otherwise detectable by competing inspection systems.

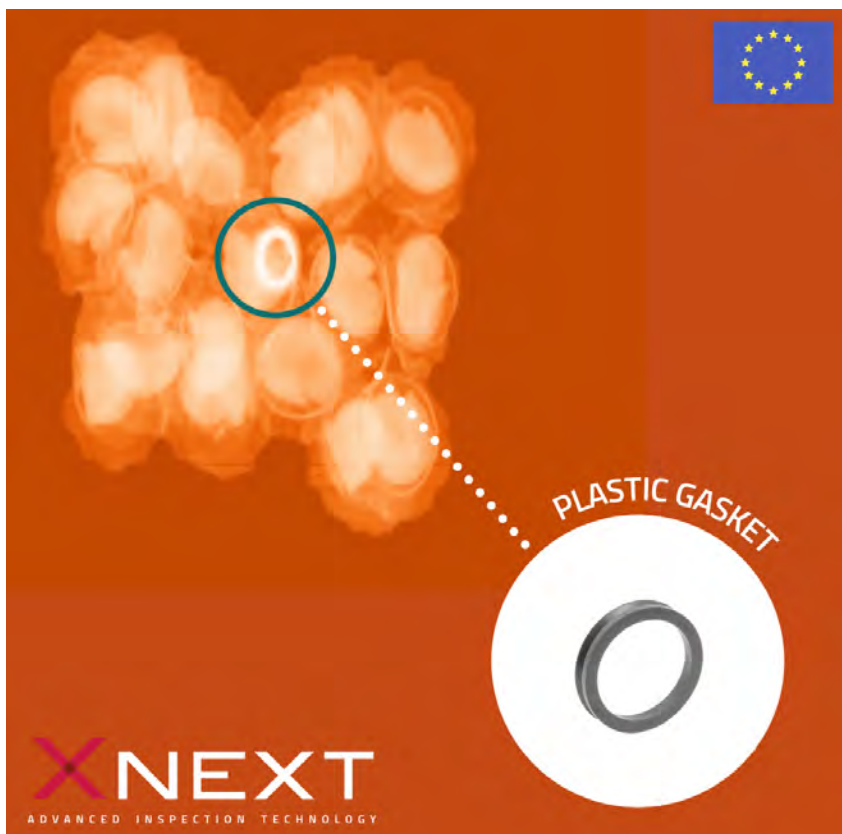
Prior to each installation, an initial product dataset is acquired in a Demo Center and neural networks are trained on this referenced dataset. This results in greater efficiency of the inspection machine once it is put on the production line. Updating also continues during the commissioning phase of the machine, where the system is trained to perform optimally by acquiring new data to continue training the inspection SW.

In the case of ravioli packaging, XSpecra was able to effectively distinguish between contaminants of different origins. These are divided into two categories: those generated by the production machinery, and those external to the production line (foreign bodies present inside the raw materials, materials inadvertently released by those involved in the processing and packaging of the final product).

With regard to contaminants released from production machinery, Xspectra was able to find: plastic fragments, nylon threads, pieces of industrial pumps, soft and hard gaskets, and pasteurisation nets. For materials in the second category, Xspectra found olive stones, bones of various animals, small pebbles, claws, and fragments of carapace.

Lastly, this new inspection system will reduce the environmental costs of recalls, guaranteeing unprecedented quality standards and giving companies that use it a competitive technological advantage. 🏛️

www.x-next.com



XNEXT
ADVANCED INSPECTION TECHNOLOGY



The Best ingredients for a tasty life

#FaravelliFoodDivision

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PROTEINS / FIBERS / VITAMINS / FARA® FUNCTIONAL SYSTEMS

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THE BEST INGREDIENT

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TARNOS VIBRATION TECHNOLOGY FOR FOOD INDUSTRY PROCESSES



Conveyor and cross feeders to multi head weighers

Vibrating material equipment has become a very essential technology for the food and packaging industry not only because of the handling processes they can achieve, but also for the high requisitions they meet according to the strict hygienic demands from this industry.

These sanitary demands make vibrating machinery especially appropriate for the Food and Pharma activities, as they not only ease the cleansing and sterilizing procedures, but they also avoid product traces along the surfaces in touch with the material they handle.

Vibrating equipment is especially good when it comes to conveying,

feeding, dosing, mixing, blending, sieving, screening, batching, grinding, packaging, flaking, sprinkling, aligning, freezing and drying processes.

Equipment will be executed with either electro mechanic or electromagnetic technologies, depending on the characteristics of the product to be handled, and concrete demands for the procedures to accomplish.

TARNOS has designed and manufactured Vibrating Material Handling Equipment for more than 60 years with the support and know-how of a strong pioneer in this field; Syntron.

The participation in many projects and applications through all these

years, and even in different industries, provide the company with experience to solve problems in many critical handling processes.

Among Tarnos equipment, **vibrating feeders and dispensers, screens, conveyors, sieves, spiral elevators, vibrating tables...**

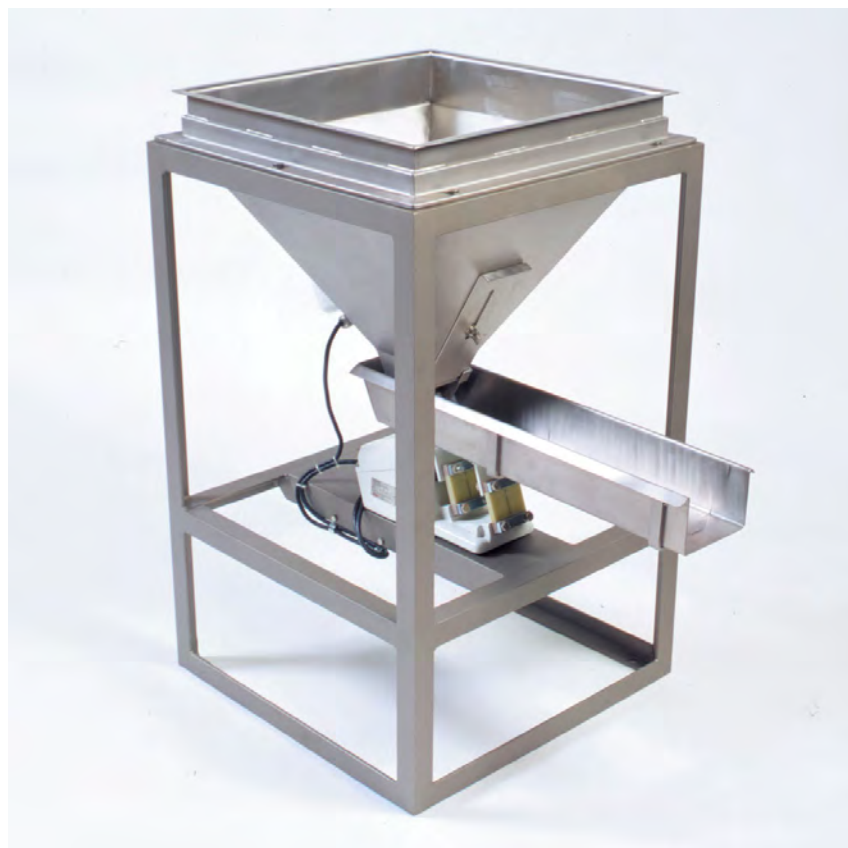
Some examples of the **customized equipment** in the food industry may be vibrating conveyors and cross feeders, vibrating sieves, vibrating dispensers, seasoning feeders, vibrating sprinklers, vibrating aligners, vibrating chargers to elevators, vibrating feeders to or from freezing tunnels, vibrating screens, vibrating spiral elevators, vibrating tables for compacting or dispersing product, horizontal lines for solids packing, etc.

When it comes to end users, Tarnos cooperates with the customer in the selection of the optimal customized solution for customers' challenges, and according to their installations and productions. Also Tarnos cooperates with integrators / engineering companies to find these customized solutions for each project.

On the other hand, when it comes to **standard equipment**, Tarnos manufactures and provides with **ELECTROMAGNETIC LINEAR VIBRATORS** to numerous Original Equipment Manufacturers that include these vibrators on their own machinery.

Electromagnetic vibrators and feeders work at very high frequencies with very little amplitudes, which is very good when it comes to product care, and are capable to be instantly regulated manually or analogically through a controller. They feed smoothly with a uniform cape of product.

Some examples of equipment where manufacturers include Tarnos vibrators on their designs are **simple and multi head weighers, optical selectors, vibrating dispensers,**



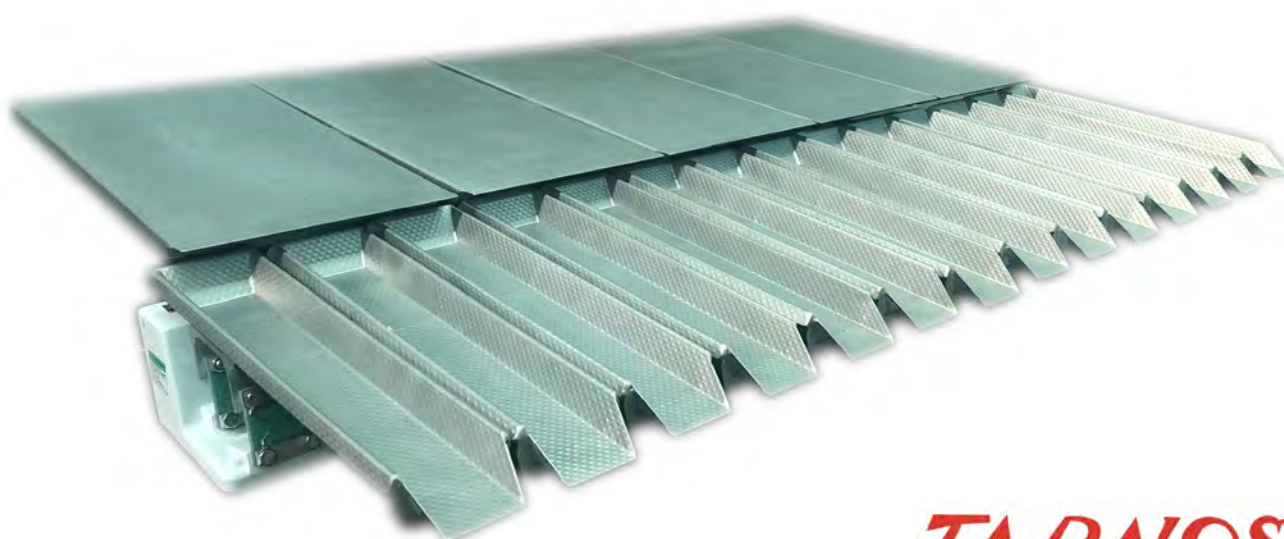
Volumetric vibrating dispenser

vibrating counting pill machines, lines of biscuits...

As this machinery's destination is mostly in the food industry, Tarnos vibrators will be also provided with

high IP standards, stainless steel components and FDA paintings. Also ATEX units under special executions can be supplied. 🏭

www.tarnos.com



Vibrating plates and feeders for multi head weigher

TARNOS

“PELLACINI TAYLORING SYSTEM”: A PROCESS THAT ELIMINATED PRODUCTION CONSTRAINTS

Pellacini is able to respond to the demands of a market that is increasingly attentive to productivity, safety and economic and environmental sustainability

The Pellacini family started the business at the end of the 19th century, in Parma, in today's Food Valley.

Working closely with the first canning industries, Pellacini has experienced all the growth phases of this sector.

Thanks to experience gained in the international arena, is now able to meet the demands of a market that is increasingly attentive to productivity, safety and economic and environmental sustainability.

It designs and manufactures machines, equipment and complete plants for processing fruit, tomatoes, legumes and vegetables appreciated all over the world.

By collaborating with the most important and qualified companies in the sector, Pellacini keeps constant the search for new technological solutions to contribute to the development of the vegetables and fruits processing, confirming its cutting-edge expertise.

Pellacini puts the customer and the project at the center more and more thanks to a new production method, the “Pellacini Tayloring System”: a process which, having eliminated its own production constraints, allows





for the creation of the perfect equipment for the customer, entrusting its production to carefully selected workshops specialized in individual processes.

Pellacini technology is extremely flexible, reliable, easy to maintain, updated and present not only in the Italian market but mainly in the main international markets: Europe, South

America, North Africa, the Middle East and the Far East. After-sales assistance is punctual and guaranteed also thanks to the archive of the projects of the equipment and systems built over time.

Pellacini designs and produces the lines, all the machines and components for the production of creams, purees and fruit concentrates, juices, nectars, jams and marmelade, vegetable preserves, sauces, condiments, sauces and vegetable concentrates, completing the range with heat treatments, pasteurization, sterilization both in autoclave and continuous, aseptic filling, enzymatic treatments and recovery of production waste. 🏭

www.pellacini.com





Present and future with INDUSTRIE MONTALI

by
Chiara Natalucci



Stefania Montali
Company owner Industrie Montali

How will the food industry look like in the post-COVID era? Which will be the most preferred channel of shopping in light of new consumer behaviours? How will packaging change in the future? We interviewed Stefania Montali, owner and representative of the fourth generation of Industrie Montali, to

talk about all this. Industrie Montali is an Italian company that was founded as a tomato processing company in Emilia Romagna in 1910.

Today Industrie Montali produces a wide range of food products that satisfy multiple needs and is available both to the large-scale retail trade, the hospitality industry and private label sectors with significant exports shares, especially to the United States, Singapore, Great Britain, Ireland, Eastern Europe and Korea.

Stefania Montali told us that the company's current production is characterized by a wide selection of ready-made sauces, pâtés and vegetable products, made





with top-quality Italian ingredients with no preservatives, colourants or antioxidants. The company is now specializing in natural products with organic and vegan lines, combining old and traditional production techniques with modern and simple recipes, to create genuine, easy-to-cook products.

In addition to describing the current status of the company, together with the owner of Industrie Montali we have discussed the future of the food market after Covid-19, trying to identify the new trends in food production in the next year. Stefania Montali's perception of today's situation is that now more than ever, people have re-discovered the pleasure of cooking at home, experimenting with ingredients bought at the supermarket or using the delivery services.

In this regard, she states that she has seen an increased demand for those products that are being delivered at home, especially from the network of distributors that sends consumers multi-product kits containing all ingredients to prepare a healthy meal to cook easily and quickly, with no need to go to the shop. Moreover, as far as online purchases are concerned, at the end of 2019, Industrie Montali had already opened an online shop selling the EasyMontali line, which is currently giving good results, especially con-

sidering that in the Italian large-scale retail sector the brand is still little known, despite its old history, because the company's main focus has always been the foreign private label market.

As for the new consumer needs emerged during the pandemic, beyond the increased use of online shopping, we talked about how the packaging of the future will change. This topic is very much delicate and dear to many consumers, as revealed by recent market surveys according to which users would like to be guaranteed higher levels of hygiene, including a more hygienic packaging.

Stefania Montali explained to us that the focus on this issue dates back to 30 years ago when the company decided to avoid using glass jars because the glass was considered a dangerous material which could have a lower level of hygiene compared to other types of packaging. For years the company had already avoided glass as a viable option in favour of a multilayer foil-lined packaging, in aluminium and plastic, with the right quantity to prepare a meal and then throw the packaging away. The smaller size of this packaging for the same content compared to other packages means a lower environmental impact, including some gre-

at advantages. One of these has to do with the higher quality of the product, because during production the heat treatments are reduced compared to other types of packaging, allowing better preservation of the organoleptic properties of the ingredients. A further key advantage is the amount of carbon dioxide that is released in the atmosphere, about a third less than the amount used in the manufacturing of glass.

Industrie Montali is an Italian small-medium sized company that has made innovative packaging and user-friendly solutions its strong points. The company has the highest certifications in terms of quality and hygiene, requested by the tough and highly-demanding American market.

Product research and development is entrusted to an expert team that, among other things, is responsible for research according to the target market or the large-scale retail trade, giving particular attention to special products with particular nutritional values, such as low in salt and sugar products.

We greeted Stefania Montali wishing her that the company's commitment and high-quality would continue for a hundred years and more. 🏠



Nell'era dei prodotti e dei servizi alimentati dal software, CodeMeter assicura:

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SECURITY
LICENSING
PERFECTION IN PROTECTION

PNEUMAX S.P.A.

COMPONENTS AND SYSTEMS FOR INDUSTRIAL AUTOMATION

Pneumatic components, electric actuation and fluid control

Founded 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.

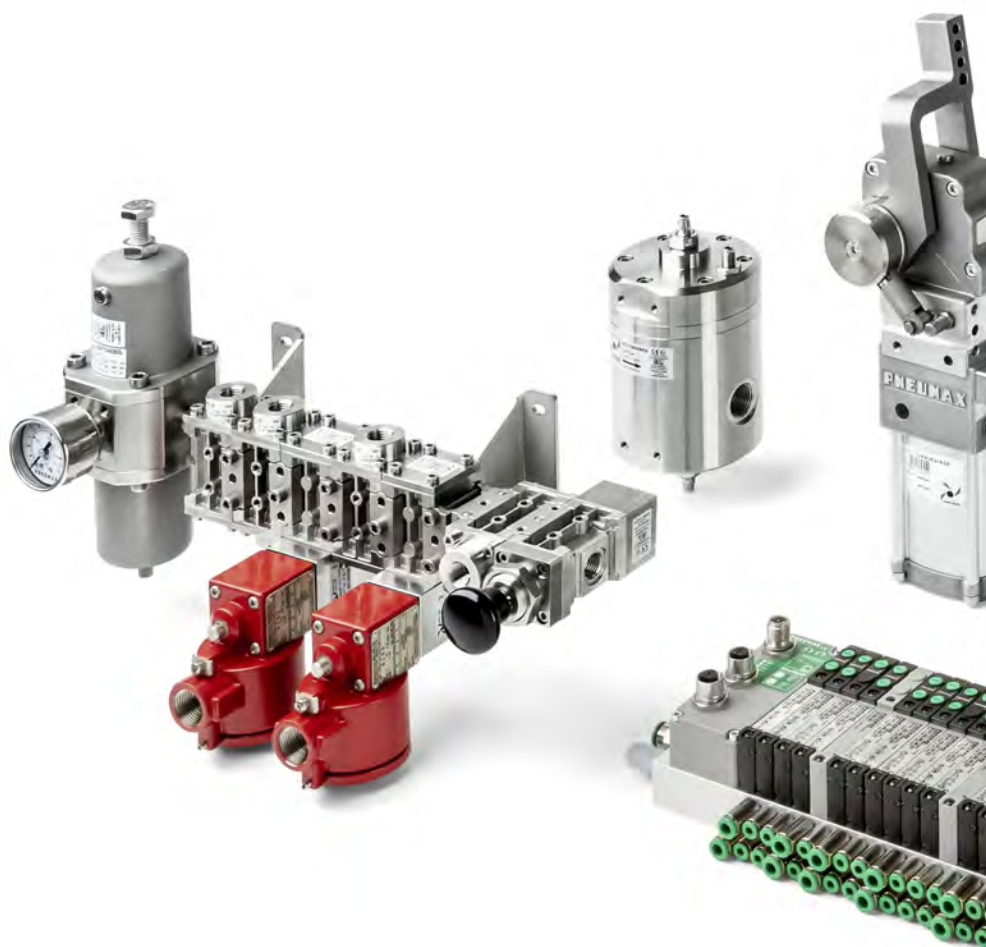
Continuous investment in research and development has enabled Pneumax to expand its offer by combining well established pneumatic technology (actuators, valves and solenoid valves, proportional technology, fittings, compressed air treatment, materials handling, vacuum), with electrical actuation and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



PNEUMAX

FOOD
processing



PNEUMAX



Food & Beverage solutions

FCM Series fittings
Suitable for contact with food and
the passage of fluid food material.



The latest range of components designed and manufactured by Pneumax for industrial automation applications in the Food & Beverage Sector now includes the new **FCM Series** fittings suitable for contact with food in accordance with the **1935/2004, 2023/2006, 11/2011 regulations** and compliant with the **European regulation 831/2018 or MOCA**. The FCM Series has been designed to ensure maximum reliability in managing the passage of fluid food material.

 Italian Excellence



pneumaxspa.com

TOMRA FOOD'S STEAM PEELERS

High yields and low energy usage make TOMRA food's steam peelers perfect for Lamb Weston / Meijer, a world-leader in high-quality frozen potato products

Lamb Weston / Meijer is one of the most recognized companies in the global potato industry, with a rich and storied history. The company's mission - Wellbeing through Potatoes - and their customer- focused modus operandi has earned them stripes serving Quick Service Restaurants, large food chains, and retailers all over EMEA.

Fueled by their dedication to innovation and improving efficiency, Lamb Weston / Meijer is a leader in producing high- quality products. Incorporating state-of-the-art technology, investing in research and development, and embracing forward-thinking initiatives are a few ways they evolve to best serve their customers.

Lamb Weston / Meijer's commitment to preserving nature, and its resources, while caring for neighbors contributes to their overall growth and success.

These shared virtues and values are just another reason why their partnership with TOMRA Food makes for a perfect match.

Humble Roots of All Varieties

The Lamb Weston / Meijer's history starts on Kees Meijer Sr's family farm, with his first harvest of potatoes from the Dutch clay soil in the 1920s. On the other side of the world, in the 1950s, F. Gilbert 'Gib' Lamb invents the Water Gun Knife to cut fries - the first of many innovations that will

help propel them to the well-known global businesses they are today. In 1994, these two great companies merged to form Lamb Weston / Meijer- the rest is history.

If it involves potatoes, there is a high probability that Lamb Weston / Meijer produces it, lives it, breathes it.

From straight cut fries to their iconic Twisters®, Crisscuts®, Potato Dippers, wedges, sliced, diced and hash browns, or mashed potatoes, they

have never met a spud they couldn't process and distribute. Sweet potatoes, to chopped and ambient potato products, they know their way around the tubers.

Given their portfolio's width and depth, at Lamb Weston / Meijer, they use a wide range of potato varieties - Innovator, Markies, Lady Anna, Bintje, Fontane, Ivory Russet, and the Russet Burbank, amongst others. Each type of potato has its own



characteristics, making it essential to have intelligent equipment that can handle various spuds without hassle.

Defects can be found in color variations, solids' content, the finished product appearance, and other anomalies.

Still, Lamb Weston / Meijer provides their customers with nothing but the best, delivering top-quality products with each and every order. To keep the quality top shelf and remove the unwanted's from the line, the best steam peeling equipment and optical sorters are necessary, and that means TOMRA Food.

The Michelangelo of Peeling

After years of refining the process and improving their methods, Lamb Weston / Meijer has taken peeling potatoes to an art form, and they are at the front of the renaissance.



The 11 TOMRA Steam Peelers operating in seven Lamb Weston / Meijer processing facilities worldwide help the business churn out a whopping 255 tons of potatoes every hour so they can fulfill the orders of their global customer base. The peel loss rate is highly dependent on the potato's variety and the time of the year it is harvested, but average levels would fall between 0.5% - 2.0% for Lamb Weston / Meijer, which is quite a masterpiece.

Lamb Weston / Meijer's first TOMRA Steam Peeler, installed in 2003 at Lamb Weston /Meijer v.o.f Oosterbierum marked the beginning of a lasting and prosperous relationship in EMEA.

This original line is still operating today, although the peeling equipment

has been updated and evolved with the times. This long-term partnership has been reaffirmed and strengthened year after year - with the two allies challenging each other, and the status quo, to deliver the best possible potato products to the end consumer.

The Way Forward Means Maximizing Resources

As a part of their sustainability commitment, Lamb Weston / Meijer has been gathering data on their environmental performance since 2011 and acting on it.

With their TOMRA Eco Steam Peelers, resources are harnessed to directly improve product yields while reducing their steam energy usage, contributing to and enabling the brand's sustainable operation goals. These Eco Steam Peelers, combined with their strong focus on furthering sustainable operation, have tapered down water use by 4.7%, reduced energy use by 4.4%, and in 2019, they diverted 89% of their waste from landfills.

"We monitor our energy use to stay informed of our progress and consumption. With the Eco Peeler from TOMRA, our organization's sustainability strategy follows best practices to limit consumption while at the same time improving our processing possibilities," says Rick Verhage, Process Engineer for Grading & Peeling within Engineering Services at Lamb Weston / Meijer.

Lamb Weston / Meijer has talked the talk with their forward-thinking goals - setting the example for others in the industry. By using less energy, recycling water, wasting less, and responsibly sourcing their packaging materials, they show others how to walk the walk.



More automated processes rendering actionable data are desired in addition to sustainability targets– all areas TOMRA equipment addresses. Digital connectivity will continue to be more critical as processors like Lamb Weston / Meijer aim to achieve the highest possible automation level.

“Working with TOMRA Food, we have achieved superior solutions and a higher level of automated process control on yield and quality at our Pacific/Bergen op Zoom upgrade L1 project. The industry’s future is more sustainable operations and bringing automated process control to the next level focusing on data. These are both aspects where TOMRA’s expertise and knowledge have helped us and furthered our operations. The TOMRA steam peelers and integrated peel scanners have been an improvement on overall peel quality, peel loss, and requires less operator attention,” says Rick Verhage, Process Engineer for Grading & Peeling within Engineering Services at Lamb Weston / Meijer.

Reliability and Peace-of-Mind

To help ensure that their lines are meeting the necessary output for a consistent supply for their customers, Lamb Weston / Meijer subscribes to TOMRA Care at their Wisbech and Broekhuizen vorst plants.

With TOMRA Care, downtime is kept to a minimum with prescheduled maintenance appointments to fit their business and machine needs. Along with the improved uptime comes the reliability of our parts support and discounts on planned maintenance from TOMRA Field Service Engineers. TOMRA keeps a watchful eye on parts experiencing heavy wear and tear, automatically shipping out replacements before needing service, allowing Lamb Weston / Meijer to do their best work with confidence.



Open and Involved

At Lamb Weston / Meijer's facility in Bergen op Zoom, they are in an upgrade's feasibility phase.


The TOMRA team is running calculations for different scenarios and proposing different possibilities.

"Understanding of both Lamb Weston / Meijer's operational situations and identifying new growth opportunities together has been vital in our partnership with TOMRA.

Additionally, open communication and interaction from both parties are dynamic in improving our processes and how we work together," says Rick Verhage, Process Engineer for

Grading & Peeling within Engineering Services at Lamb Weston / Meijer.

When Lamb Weston / Meijer brings up questions or areas they wish to improve on, TOMRA investigates and actively helps uncover possibilities, or, as Rick Verhage puts it - "they are a valuable resource to finding solutions for our needs." On top of the shared values and virtues, this symbiotic relationship has brought out the best in each other for nearly two decades.

Much like Lamb Weston / Meijer's expertise and capabilities have grown over these last 18 years, so has their confidence and trust in TOMRA Steam Peeling solutions. 



TOMRA Food designs and manufactures sensor-based sorting machines and integrated post-harvest solutions for the food industry, using the world's most advanced grading, sorting, peeling and analytical technology. Over 8,000 units are installed at food growers, packers, and processors worldwide for fruits, nuts, vegetables, potato products, grains and seeds, dried fruit, meat and seafood. The company's mission is to enable its customers to improve returns, gain operational efficiencies, and ensure a safe food supply via smart, useable technologies. To achieve this, TOMRA Food operates centers of excellence, regional offices and manufacturing locations within the United States, Europe, South America, Asia, Africa and Australasia.

TOMRA Food is a member of the TOMRA Group founded in 1972 that began with the design, manufacture and sale of reverse vending machines (RVMS) for automated collection of used beverage containers. Today TOMRA provides technology-led solutions that enable the circular economy with advanced collection and sorting systems that optimize resource recovery and minimize waste in the food, recycling and mining industries.

TOMRA has ~100,000 installations in over 80 markets worldwide and had total revenues of ~9.9 billion NOK in 2020. The Group employs ~4,300 globally and is publicly listed on the Oslo Stock Exchange (OSE: TOM). For further information about TOMRA, please see www.tomra.com



DISTILLERIA VARNELLI between tradition and modernity

Traditional technology for unique flavoured spirits

by
Chiara Natalucci



We interviewed Gigliola Simonetta Varnelli, sales manager of the homonymous company, custodian of a knowledge that has been passed down from “mouth to ear” through four generations. Since 1868, Distilleria Varnelli has been creating herbal spirits with excellent organoleptic properties, very much known and appreciated in Italy and abroad.

Born as a “remedy” for the shepherds of the transhumance, these decoctions of herbs, roots and barks from the Sibillini Mountains are the result of ancient processing techniques that involve long ageing, artisan manufacture, lots of care and experience. Gigliola Simonetta Varnelli tells us that their production is faithful to the tradition they inherited more than 150 years ago from their great-grandfather, Girolamo, who was a skilful herbalist. The essential characteristic for the uniqueness of their products is following traditional methods, which allow to maintain the quality of the raw materials, using slow and manual processes and having the utmost attention to detail.

All the recipes are prepared with traditional “technology”, using pots on a wood fire, espresso coffee machi-

nes, glass demijohns for maceration and canvas cloths for filtration. “Surely”, ironically Simonetta Gigliola says, “it would be much easier, and cheaper also, to extract in an automated way instead of decanting for long months and filtering with cloths, or cool down using refrigerators instead of cold water, or make decoctions with gas burners instead of wood-burning, or extract coffee industrially rather than making hundreds of cups – but it would be another product”.

On the other hand, bottling, quality control and logistics are carried out with the latest equipment, and great attention is paid to technological innovation in terms of packaging, marketing and customer satisfaction.

State-of-art technology applied to the different company’s organization functions represents a fundamental element to achieve a “total quality”, required to compete at high levels and on international markets.

As for the future, the company is prepared to upgrade its packaging equipment and update its software to improve management control and customer satisfaction. We couldn’t ignore the topic related to the recent pandemic emergency and the impact it has had on the spi-





rits industry due to the closure of bars, restaurants and nightclubs. For Distilleria Varnelli, however, the negative effect was partly reduced thanks to the fact that these products can count on a significant domestic consumption, which has been satisfied through purchases in the store or through online wine shops.

According to Distilleria Varnelli's sales manager, the market will face the post-COVID period gradually. There will be a slow recovery of the out-of-home habits as well as a reluctance by some social groups to go out both because of the "hut syndrome" and the inevitable economic difficulties.

Where possible, there will be a shift in consumption towards "single-dose" packaging, considered to be safer and more secure. It is estimated that the daytime bars and restaurants sector will be the first to recover, while the nightlife and tourism, for obvious reasons, will struggle a bit longer.

Industries, distribution, shops, bars and restaurants will have to cope not only with the challenges caused by the drop in sales and turnover but also with the change in consumer habits since the lockdown has greatly increased digitisation and the use of delivery services. It will be necessary to "re-capture" this new type of digital consumer with a new approach and a different type of communication. Any crisis brings changes and choices, but it can also offer new opportunities.



This attitude of great determination and confidence in the future has allowed the Marche-based company to develop and grow over time, presenting itself as a dynamic player attentive to market demands without ever altering the quality and value of its products. 🏠

VARNELLI
dal 1868





Make the most of every food, dairy & beverage.

**Processing and packaging solutions for stock cubes,
processed cheese, butter, margarine, yoghurt & UHT beverages.**

IMA improves the international food and dairy market with the best platforms and machines now available to satisfy industry needs. Consistently providing tailored technologies for the processing and packaging of tablet and pressed cubes, as well as processed cheese, yoghurt, yeast and so on, IMA can manage the entire food chain, from dosing and wrapping to end-of-line. **Make the most, with us.**

ima.it/makethemost/food-dairy

IMA 
Sustain Ability

PRESSED STOCK CUBES: IN-LINE EFFICIENCY.

A brief interview with the IMA team behind the highest speed line with the smallest footprint available on the market

The manufacturing of pressed stock cubes is a market niche where a higher level of efficiency is often required: all the machines in the line have to work together in synergy to ensure maximum productivity. Today IMA is

the only supplier on the market that can single-handedly offer a complete line. We had a brief conversation with IMA experts regarding the latest development in this field: a complete line with an output of 2,000 tablets/minute.

Let's start with Fabriano Ferrini, Product Manager for Tablet Presses at IMA Active. Since we are talking about pressed stock cubes, I suppose everything starts with a tablet press. Is that right?

Yes, that's right: the first machine in the line is a tablet press. Prexima is designed to guarantee high efficiency in production, mainly pursuing two factors: high output and consistent processing.

Prexima features several technical solutions for high-speed tableting of bouillon powder.

A new die feeder has been designed specifically for high efficiency feeding of wet masses with low flowability. This has proven to ensure low deviation in weight, even with tablets of 10 grams or more.

Compaction and dwell time are also important factors when high speed needs to be reached.

They allow more time for the ejection of the air contained in the powder blend and for the bonds to be made between the particles.

Here, the 250 mm pre and main compression rollers mounted on Prexima really make all the difference, as well as the IMA 32T tooling, which features a larger punch head.

In addition, the Prexima high-yield motorisation minimises heat production in the lower compartment,



being the ideal solution for low melting or heat sensitive products. Low temperature tableting maintains blend flowability at die feeding, prevents product sticking to punches, and dies and preserves tablet quality.

So, Prexima can run fast. But to achieve efficiency you must ensure a consistent process as well.

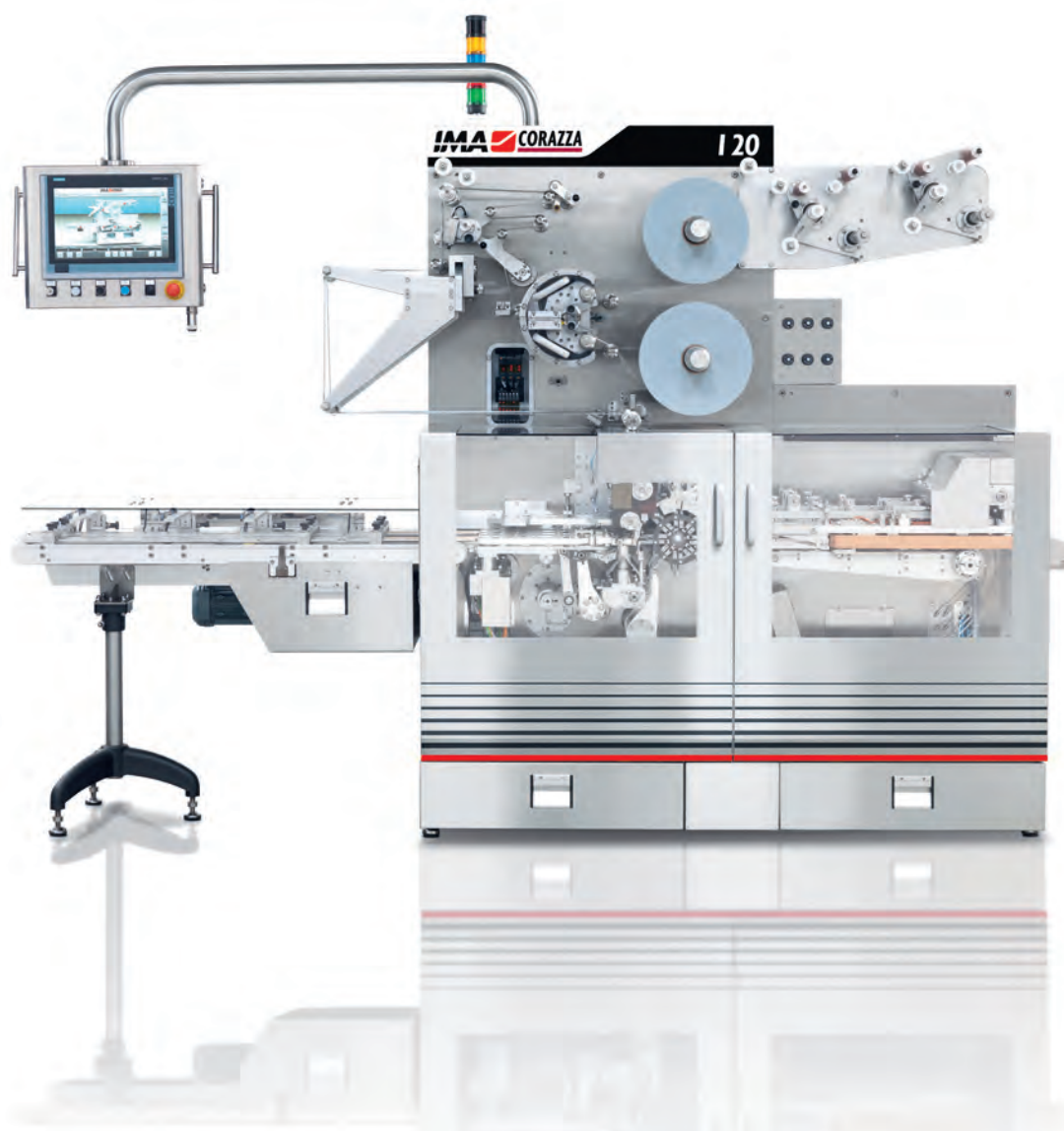
Correct: an optimal OEE is based on a robust operation, which minimises unexpected line stop, reduces cleaning times and maintenance work. From this perspective, Prexima ensures complete separation between processing and mechanical areas thanks to the

use of purposely designed seals and protections. The absence of products in the mechanical area makes for extended duration of cams, tooling and compression rollers, leading to reduced cleaning time. In addition, a powder-free mechanical area allows for a totally automated and recirculated lubrication system: the control system automatically takes care of lubrication frequency, without any need for operator intervention. In

that way, the best parameters do not depend on the operator's skills. The only required action is to check the oil level and refill it, if necessary.

Now the tablets have to be wrapped. Let's turn to Davide Giordano, Sales Manager at IMA Corazza.

That is correct. Stock cubes are wrapped by the I20 wrapping machine, in side-folding execution, with its fully electronic operations.



The machine can be equipped with the “easy-opening unit” which enables an easier consumer-oriented opening of the stock cube wrap. The I20 is also able to handle paper-based packaging materials, which is certainly a plus for Corazza solutions in a world where recyclability and sustainability have become a must.

What are the I20’s main hallmarks?

The I20 has been engineered with a very compact footprint, delivering a space-saving solution. What’s more, its modular design means it is easy to access and maintain. Its

two-lane execution, equipped with a unique wrapping reel without any aligning unit, ensures gentle operations and high efficiency. The dedicated feeding system allows for a compact design to be delivered for both the press and the wrapper: products coming out of the pressing unit accumulate on the two-lane conveyor, distanced thanks to the acceleration wheels and then driven towards the folding wheel by a pusher. The new welding system, installed in the outfeed grouping unit, ensures excellent sealing quality of the final product. Compared to other wrapping equipment available on

the market today, the I20 machine concept and operations allow for very fragile products to be handled.

What about maintenance and cleaning?

Since the I20 has been developed to meet customer expectations in terms of maintenance, the plug-in design of the main groups greatly facilitates activities such as reel change, foil feeding set-up as well as infeed and outfeed group cleaning. The I20 shows its customer-oriented approach through the HMI control panel, which reports machine performances to monitor



production, has alarms to tackle downtimes and enables remote machine assistance.

The high number of tablets released by the I20 means an automated solution is necessary to place them into a tray. Let's listen to Michele Nomi, Area Sales Manager at IMA GIMA, who can give us some more details on the FTB569 tray packer.

Over the last few years we have seen increasingly faster wrapping machines and, at the same time, a general growth in labour costs.

These factors have led many customers to look for automatised solutions also in the end-of-line sector, replacing what was normally done by semi-automatic equipment or even manually by operators. It has been almost ten years since we began collaborating with IMA Corazza, supplying a downstream wrap-around tray packer for wrapping machines, and I can definitely say it is highly appreciated on the market for its many features. First, its compactness – a total length of approximately 2 metres, including infeed and outfeed conveyors – and its accessibility. Then, product handling and flexibility: thanks to the servo driven movements and other tailored devices, we can guarantee the smoothest product handling without any damage. Lastly, the machine is designed to provide a quick size change, switching from one format to another by replacing just a few parts, allowing our customers to be reactive to market changes and trends, while maintaining high efficiency levels.

You mentioned the wrap-around tray packer. What are the advantages of this technology?

The fully automatic technologies used to place the tablet in trays are usually top loader and wrap-around.

Although we have both of them in our portfolio, for this specific application we have decided to use the wrap-around solution because of several advantages.

Firstly, as we have just mentioned, the compactness of the machine. Secondly, optimised tray dimensions: by forming the tray directly around the bundle, we can design it with zero tolerance between product and tray, which means a reduction in the used material, while achieving significant annual savings in logistic and shipping costs. Last but not least, the quality: a tray that perfectly fits around the product looks better on the shelf and facilitates its wrapping.

Now we should wrap the tray... Let's ask Enrico Pazzi, Food Sales Manager at IMA BFB, which has a long tradition of designing and manufacturing end-of-line machines, ranging from overwrapping and stretch wrapping to case packing, palletizing and handling solutions. If you had to choose the best machine to end this line, which one would you propose?

The A50: it is a very compact machine. Its reduced footprint also makes it the ideal end-of-line solution when it comes to wrapping because it can easily adapt to any space constraint. Being the final equipment in the line means that it has to be flexible in size if you want it to fit into any space.

The machine is also extremely easy to operate. Operators do not have to be trained or particularly skilled to use it. We can say that it is designed with the operator in mind because it is easily accessible thanks to its balcony structure: it is very easy to reach the product-flow areas for cleaning.

The A50 guarantees maximum protection both for the operator and the product.

How is overwrapping carried out on the machine? How is the final quality of the wrap guaranteed?

The machine has specific film unwinding, cutting and sealing systems to ensure that the film is always cut with a very precise fold and sealed without wrinkles, air bubbles or other imperfections. The product is treated with care, lifted by the elevator, gently wrapped and pushed to the sealing area, where it is securely sealed and closed as it goes through the sealing plates. Thanks to this system, the machine can handle very thin films, like 16 micron films, considering the standard thickness is 22-24 micron. The option of handling thinner films brings significant advantages because, on the one hand, you can reduce the cost of the packaging material and on the other, you have a greater film reel autonomy which means less operator intervention. 🏢

www.ima.it

Make the most – The IMA Virtual event dedicated to Confectionery and Snack market

The Sensing Future Days cycle continues: a new virtual event completely dedicated to the processing & packaging solutions for the Confectionery market will take place on May 27th, the agenda will be available in the next days. Join the Sensing Future Days community to receive updates on the agenda. March edition: the last virtual event entirely dedicated to complete lines for stock cubes, processed cheese, butter & margarine, yoghurt, beverages & baby food and of process technologies for gums, candies & coated sweets is now available on-demand on the IMA Sensing Future Days Platform. Sign-up now at sensingfuture.ima.it to re-watch these sessions, as well as any other session from past editions.

ELMITI SRL

ELECTRIC HEATERS



We 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



MINI MOTOR, MORE THAN HALF A CENTURY OF INDUSTRIAL AUTOMATION

Mini Motor, was born in the heart of the Emilian Motor Valley, in Bagnolo in Piano (RE), and for over 55 years has been designing and manufacturing electric motors applicable in different industrial sectors, designed to meet and anticipate the needs of Industry 4.0. From Italy to the rest of the world, the company has branches in Europe, the USA, and the Arab Emirates accompanied by a widespread network of dealers.

Automation and motion control, among the company's major innovations

Mini Motor's is a range aimed at innovation, designed to be perfectly compliant with the needs of companies working in an Industry 4.0 perspective,

with products designed for automation and motion control.

The DBS series was born in line with this philosophy: brushless motors with integrated drive and absolute multi-turn encoder, whose connectivity is ensured by the support of the 6 most common field buses. One of the great innovations of these motors is the presence in them of sensors capable of sensing temperature, current, speed, but above all vibrations, through an accelerometer. These sensors detect and communicate their anomalies and that of the organs connected to them, then, crossing the variables sent through the field bus, allow to obtain real predictive maintenance, which avoids the compromise of the production or the machine, increasing its longevity, but above all decreasing the replacement of components.

Among the DBS motors, but first, of its kind, the WBS is a brushless servo motor with integrated wireless activation, thanks to its built-in wireless interface and the presence of an inductively charged battery.

The USB stick that brings the benefits of wi-fi to DBS engines


Perfectly inserted within the innovations brought in the mechatronics world by the Digital Transformation, the device realized by Mini Motor for better monitoring and set-up of the electric motor: the USB key for the brushless DBS motors just mentioned. It offers to the user all the advantages of the wireless connection: a wi-fi connection and a browser are enough to access from several devices and modify the parameters of the motor. The key can also be left on the electric motor, set remotely. An advantage



Fast Change

found particularly in those machines subjected to isolation measures to prevent contamination and in those with motors located in positions difficult to reach by the user. This innovative system is the perfect cross between mechanics, electronics, and computer science, concretely able to guarantee practicality and simplicity in terms of usability by the user himself. Besides, the Mini Motor USB flash drive removes the obstacle of reaching motors in difficult positions, making it ideal for plants and machinery for the processing and handling of the product, which require sudden changes in motor speed or frequent format change operations imposed by the dynamics of the market.

For the customer, this is a gain not only in terms of convenience but also in terms of dynamism and efficiency of its fleet of motors, entering more and more into a perspective of integrated logic in which aiming to guide the entire production from remote.

As for all the projects that lead to the creation of the wide range of Mini Motor products, the fruit of years of experience but also of continuous research and a look to the future, also in this case the Emilian company does not limit itself to answering market questions, but pushes its innovation further, creating products capable of truly improving work in companies and filling the gaps of competitors. 

www.minimotor.com



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

Over 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 Nm³/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 Nm³/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

SOLVE FERMENTATION CHALLENGES THROUGH APPROPRIATE VALVE SELECTION

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

With 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



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



BONDUELLE PROJECT: sustainability in 6 points



by
Chiara Natalucci



Andrea Montagna
CEO of Bonduelle Italia



We interviewed Andrea Montagna, CEO of Bonduelle Italia, with whom we talked about the future of food consumptions, the recovery of OOH consumption and the new Bonduelle project.

The French company has always been very attentive to the needs of consumers and extremely sensitive to environmental issues. Here is the summary of our conversation.



Summer season: the recovery of fresh food consumption, predictions and trends

Here in Bonduelle, we have good reasons to expect fresh food consumption to recover firmly in the coming months. First of all, the healthy trend that has been developing in recent years will not only continue, but we think it will increase because after cooking and eating a lot during the lockdown, it feels like we need to go back to a more balanced and simple diet.

That is why we think that there could be a return to fresh food and IV range salads. Moreover, we expect the consumer today to buy a pre-packaged and therefore absolutely safe product that allows him to make quick shopping, without spending too much time in the store. Finally, in a moment of great insecurity like the one we are living now, we think that the consumers will buy the brands that they trust. Our predictions until September are therefore positive and we expect an improving trend in the coming months. A growth that we will try to support with the new Bonduelle commercial, on-air next July.

The second half of 2020: the recovery of OOH consumption

At Bonduelle, we are expecting the growth of the out-of-home segment to happen in two different moments, depending on the sector: the quick service restaurant, and the bar and restaurant sector. In the first segment, we include multinational chains like McDonald's and KFC and this is already recovering pretty well.

We expect it to go back to grow again in the second half of 2020 like it was growing the pre-COVID period. As for bars and restaurants, on the other hand, we expect less rapid growth. We think that by the end of the year it can return to pre-COVID levels, while we will have to wait until early 2021 to grow again.

Our vision of the future is the Bonduelle project: a new alliance between agriculture and nature.

In 1996, Bonduelle first created its agronomy agreement. From that day onwards, its 3100 partner farmers are required to sign it and adopt good practices to preserve the environment and alternative techniques with reduced impact on the environment.

Things have greatly improved in sustainability and today Bonduelle has launched a new challenge, which strongly commits the Group and all its sta-



keholders to create "a better future through vegetable-based food".

Currently, Bonduelle is working to obtain B-corporation certification and aims at becoming a "better" company for the world.

Faced with the great challenge of feeding almost 9 billion people in the world, taking into account the environmental problems resulting from the climate change, Bonduelle has chosen to put vegetable-based food at the heart of its production. This decision is driven by Bonduelle's belief that vegetable-based food and the development of agroecological sectors are essential requirements for the creation of sustainable agriculture and the benefit of today's and tomorrow's generations.

In these circumstances and thanks to the collaboration with its agricultural partners, on February 20th at the Food Journalism Festival, Bonduelle presented the "Bonduelleproject", a 6-point commitment to sustainability.

- 1- Promoting local and seasonal productions
- 2- Restricting the use of pesticides to protect the soil and the environment
- 3- Preserving biodiversity and natural resources
- 4- Reducing the use of additives and preservatives
- 5- Guaranteeing a wide range of organic products
- 6- Promoting the use of sustainable packaging



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15-17/03/2021

RIMINI

Fair for bakery, pastry, ice cream, coffee.



mcTER

12/04/2021

ROME

Exhibition on energy efficiency.



BEER&FOOD ATTRACTION

12-13/04/2021

RIMINI

Fair for beers, drinks,
food and trends.



FISPAL

22-25/06/2021

SÃO PAULO

Fair for product from packaging.



SPS/IPC DRIVES/ITALIA

06-08/07/2021

PARMA

Fair for industrial
automation sector.



CIBUS

31/08-03/09/2021

PARMA

Fair of food product.



MACFRUT

07-09/09/2021

RIMINI

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



mcT COGENERAZIONE

21/09/2021

MILAN

Exhibition for applications
of cogeneration.



FACHPACK

28-30/09/2021

NUREMBERG

International packaging trade fair.



HISPACK

19-22/10/2021

BARCELONA

Technology fair for packaging.



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 innovations
for the manufacturing industry.



MIDDLE EAST 2021/22

GASTROPAN

11-13/03/2021

ARAD

Fair for the bakery and confectionery industry.



PROPAK ASIA

16-19/06/2021

BANGKOK

Fair for packaging, bakery, pastry



PROPAK VIETNAM

28-30/07/2021

SAIGON

Fair for packaging, bakery, pastry.



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01-05/09/2021

TEHRAN

Fair for food, beverage&packaging technology.



ANUTEC

15-17/09/2021

NEW DELHI

Fair for the food&beverage industry.



GULFOOD MANUFACTURING

07-09/11/2021

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Fair for packaging and plants.



GULFHOST

07-09/11/2021

DUBAI

Fair of hospitality.



HOSPITALITY QATAR

09-11/11/2021

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Fair of Hospitality and HORECA



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22-24/11/2021

DUBAI

Fair for for fruits and vegetables.



DJAZAGRO

22-25/11/2021

ALGERS

Fair for companies
of the agro-food sector.



PACPROCESS FOOD PEX

09-11/12/2021

MUMBAI

Fair for product from packaging.



GULFOOD

13-17/02/2022

DUBAI

Fair for food and hospitality.



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EXHIBITIONS

2021-2022-2023

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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

02/2022

MADRID

Fair for bakery, pastry, ice cream, coffee.



FRUIT LOGISTICA

09-11/02/2022

BERLIN

Fair for fruit and vegetables.



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10-14/03/2022

BOLOGNA

Fair for the cosmetic production chain.



ProWein

27-29/03/2022

DUSSELDORF

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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.



IPACK-IMA

03-06/05/2022

MILANO

Exhibition for the packaging industry.



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

STUTTGART

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

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

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14-26/09/2021

KIEV

International packaging machinery exhibition.



AGROPRODMASH

04-08/10/2021

MOSCOW

Fair of machinery and equipment for agroindustrial industry.



UPAKOVKA

25-28/01/2022

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International packaging machinery exhibition.



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