TECHNOLOGY





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DRINK TECHNOLOGY

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FROM MAKRO LABELLING, THE M.A.I.A. AND A.L.I.C.E. MACHINE VISION SYSTEMS

he evolution of the design capabilities of the Goitobased company includes two new machine vision systems guaranteeing performance, less production waste and top quality finished products. While on one hand, faster bottling lines ensure production schedules can be met, on the other, they make it very difficult - if not impossible for the line operator to accurately check every individual bottle. Only automatic quality control and bottle orientation systems can guarantee the precise characteristics of each finished product, preventing defective bottles from reaching the market. This is no news to Makro Labelling, one of the leading industrial labeller manufacturers,



always committed to taking account of, or anticipating, the market's requests, developing products, systems and patents able to guarantee performance, lower costs, less production waste and top quality packaging. The choice for advanced technological skills, production process





Tecnologia per grandi numeri

MODULARITÀ, FLESSIBILITÀ, PRATICITÀ





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

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

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

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





rationalisation and the ability to anticipate the evolution of the market. "The machine vision system is the natural follow-through to the labelling process, as the procedure does not end when the label has been applied. It is necessary to check that the right label has been attached, positioned correctly and smoothed without defects. We at Makro Labelling therefore decided to create an in-house Vision Department and to invest heavily in developing two new vision systems: A.L.I.C.E. and M.A.I.A. We have recently launched them onto the market and they will guarantee perfect and complete integration with the machine automation and a flexible, intuitive, practical response to companies who know they need automatic systems", says Simone Marcantoni, head of the Automation Department. Fruit of about 10,000 hours of software development, the two systems integrate with the labelling machines and



are also simple to manage for the line operator who can thus exploit the system to the full. In-house development and production of the two systems allows our customers to interface with a single producer, able to guarantee rapid and direct technical assistance and above all to satisfy the market's diverse packaging needs,



once again confirming the concept of flexibility which has been a hallmark of Makro Labelling since the beginning.

A.L.I.C.E. - Advanced Label Inspection and Control Environment

A.L.I.C.E. is a quality control system able to assess the horizontal and vertical position and angle of the label, together with its alignment with respect to a reference point, whether the logo on the glass, a capsule or another label. The system also checks the label is correct and the overlap of a wrap-around label and can read barcodes, a data matrix or characters, or simply check for the label's presence.

M.A.I.A. - Makro Advanced In-line Analysis

M.A.I.A. on the other hand is Makro Labelling's bottle orientation system. It is based on use of Line Scan Camera technology employing line scan cameras (also mounted on Makro Labelling's patented Follower system) able to take thousands of linear photographs (1x2048 pixels) which, pasted one after the other, produce a single image representing the full length of the bottle. When subsequently analysed, this indicates the position of the reference point to be used by the plate control system to position the bottle correctly and receive the first label in the right position. "A vision system must not be complex, otherwise the operator will not be able to use it easily, in practice limiting its use. We have seen production lines where the system has been turned off or bypassed because the operator is not able to manage

it and so decides to do without its assistance. Or the intervention of highly-trained but costly engineers is required in order to produce and obtain reliable checks. One of the reasons behind the success of Makro Labelling's machines and systems is precisely our ability to offer functional solutions which, although complex, are available to operators simply and intuitively, giving them hitherto unthinkable possibilities and flexibility. A.L.I.C.E. and M.A.I.A. have once again been designed and oriented towards simplicity and user-friendliness, so the operator can master them completely, quickly and simply," says Simone Marcantoni.

www.makrolabelling.it





HIGH-TECH PALLET LABELLING SOLUTIONS





LTECH is a leading European manufac-

turer of self-adhesive labelling systems for decorating, codifying and identifying products and materials in general.

Every day, the labelling machines built by ALTECH are used in over 50 countries, in

multinationals, big companies and SMEs mainly operating in the food & beverage, chemical, cosmetic, pharmaceutical and component industries.

Among the wide range of systems provided by ALTECH, ALcode P is the latest advance in the design of pallet label application solutions and is also suited to codify shrink wrapped pallets of PET bottles. It can print and apply A5 labels to two adjacent faces of a pallet (even 3 sides on demand) at up to 120 pallets p/hr, while ensuring high quality and reliability.

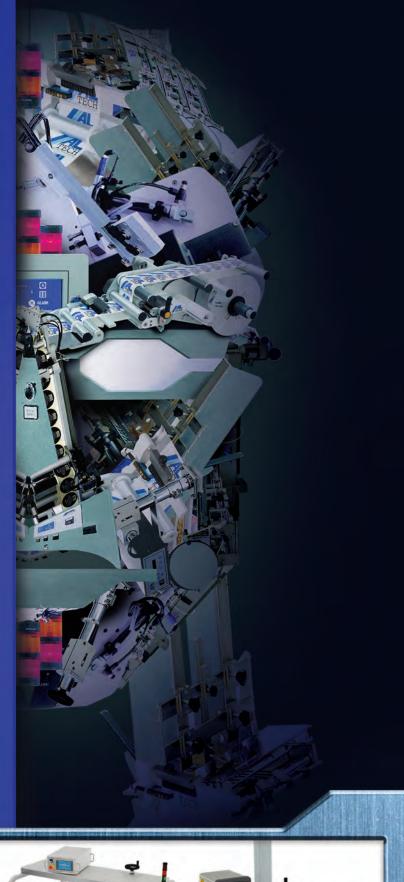
ALcode P is equipped with a SATO 84ex/86ex printing unit which can print high quality 152



INDUSTRIAL LABELLING MACHINERY MADE IN ITALY

ALTECH SRL
Viale De Gasperi, 70
20008 Bareggio (MI)
Tel. +390290363464
info@altech.it
www.altech.it











mm by 200 mm labels even in "difficult" industrial environments. It is also compatible with other printing units.

The applicator unit has been designed to apply both labels with only one pallet stop. This is due to a roller bearing three axis movement system allowing for fast, accurate label positioning, even on pallets with slightly different dimensions, shapes and stopping positions.

The robust, compact structure of ALcode P integrates the printing unit, the 3 axial applicator system and the safety cabinet. It is also equipped with an array of accessories, such as a "fallen label" sensor (missing label detection system) and a scanner laser which checks that the barcodes are legible and both labels have been correctly applied. A second attempt is performed in the event of an error before generating an alarm to stop the line when necessary.

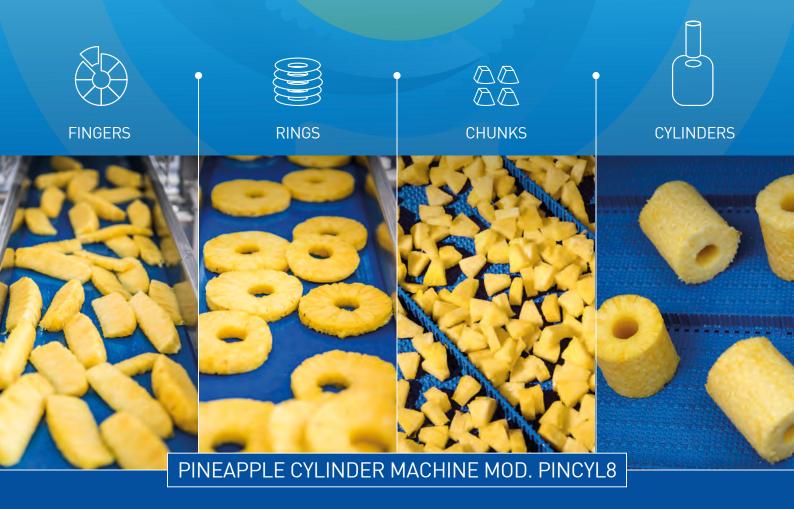
Drawing on its professional resources and industry-specific expertise, ALTECH can develop tailor-made projects to solve any labelling problem through tailor-made systems. ALTECH operates all over the world through more than 80 resellers and three subsidiary companies in the United Kingdom, the United States and South America. 💼

www.altech.it



TAILORED TECHNOLOGIES







www.pndsrl.it



FRUIT PROCESSING MACHINERY FOR 20 YEARS, PND HAS BEEN TAKING ITALIAN INNOVATION TO THE WORLD

ow in the year of its twentieth anniversary, PND, Italian

leader company in manufacturing of fruit processing machinery in the world, continues to invest in quality and innovation and to present its tailormade solutions for food companies at the main trade fairs worldwide.

After formally kicking off its 20th anniversary year at Fruit Logistica in Berlin, where it gathered together its dedicated sales agents from all over the world, the PND will continue to exhibit at other trade fairs throughout 2021 on all 5 continents.

These events will provide an opportunity to personally evaluate the advanced solutions for Fresh-Cut (fruit ready-to-eat) companies, as well as for the canned, frozen and dehydrated food industries, but also to present its new machinery. The latest addition to the PND family is the pineapple cylinder machine mod. PINCYL8. It is a highly versatile machine able to perform different cuts for pineapple processing: cylinders, fingers, chunks





and rings. With its innovative design and compact shape, it is an ideal partner for this processing. Born 6 months ago, 3 units have been already sold in Europe.

Alongside it we find the other 18 machines in our catalogue which can process a large range of fruit, such as: apples, pears, pineapples, kiwis, peaches, oranges, lemons, followed by melons, pineapples, mangoes and strawberries.

Some updates are on the machine mod. **PL6M**, a semi-automatic peeler with six processing heads, initially dedicated to peeling mango: nowadays it is also able to peel kiwi.

The advantages of the machine PL6M are enor-

mous: adjusting of peel thickness, managing of production speed and fruit rotation through an inverter, adding to the possibility of different sizes fruits processing without any adjustment and with fast maintenance. Now they are available for mango and kiwi.

When choosing one of the 18 semi-automatic machines, manual or automatic ones in the PND catalogue, you are choosing a standard machine that can be tailored to your needs.

Three years ago market asked for a machine able to process strawberries. PND replied to this request introducing in the market the *strawberry decalyx machine mod. DF12*.



This machine, only 36 months after its launch, is already present with 66 units on five continents.

Companies based in the United States, Mexico, Spain, South Korea and Egypt have chosen the features of the PND *straw-berry destalking* machine.

Indeed, this machine makes it possible to work with considerable fruit





volumes with great quality, reducing waste to a minimum.

Other de-calyx machines usually create product waste of about 30%. With the PND de-calyx machine, however, this waste is reduced to only 10-12%.

This means a large amount of product is recovered, especially if one takes into account the fact that the models built and marketed by PND can respectively process 300 strawberries per minute (Mod. DF12) and 600 strawberries per minute (Mod. DF24).

Another feature that makes the PND strawberry de-calyx machine a winner is its ability to work with all the various sizes of strawberry without needing to be pre-calibrated. This feature makes it particularly popular in Mexico or wherever it is necessary to switch quickly from the field to processing.

Avoiding any settings, the PND strawberry de-calyx machine is able to process a wide range of product with a diameter ranging between 18 and 55 millimetres, a range that, in practice, includes all types of strawberries. It is a truly global machine, as

PND srl is also truly global, being based in Italy, but with representative offices located in several different countries.

A team consisting of 30 people, including administrative and sales staff, technicians and engineers, based at its headquarters in Scafati, in the province of Salerno, in the south of Italy, works alongside agents and technical offices all around the world.

Indeed, the human element is one of the main resource of a company with mechanical and technical strengths such as these.





Despite the widespread presence of PND representatives on the various continents, when it comes to installing a new machine, there is always an expert who travels from the main office based in South Italy and follows the process through to completion.

This assumption of responsibility is a guarantee for the customer, which knows from the very first moment that it is going to be accompanied constantly from the design phase to the commissioning of the system.

This constant attention to the needs of its customers is a winning strategy that allows continuous updating in the field and a swift response to customer needs means that customised production lines can be offered to them.

The opportunity to deal constantly with customers all around the world offers the technicians from PND the opportunity to tackle new challenges and properly understand the needs of their customers.

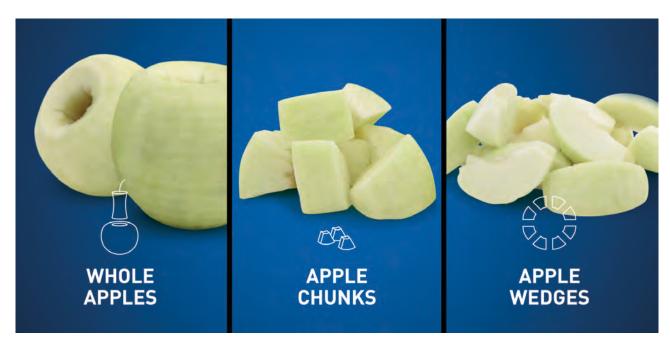
PND machines are industrial machines with manual and automatic feeding,

mostly mechanical, easy to understand and maintain. They are user-friendly machines that first make the technicians fall in love and then the operators!

Tenacity and innovation have led PND to become a company capable of operating on a global scale. With an export turnover of 95%, today it has a strong presence in Europe, South America, United States, Canada, Mexico, Australia, Africa and Asia.

www.pndsrl.it







MODULA: THE 4.0 PRODUCT IN A SMART 4.0 FACTORY

t a time when the computerisation of businesses and the human-data interchange is more and more important, the solution is an automated factory and the Modula VLM represents a solid response to the 4.0 approach. Modula is a VLM based on the idea of tak-

ing back floor space and converting it into vertical space. To give you a concrete example, an 840 sqm warehouse becomes just 14 m2 of floor space and a vertical distribution of 16 metres height, giving you a compact and lean factory which has its workers in mind.

So, the principle behind these VLMs is goods-

to-man and not man-to-goods, avoiding long journeys on foot for operators, human errors, incomplete picking lists and physical effort. Picking is actually automated, so operators avoid having to perform unnecessary moves to reach the products. Access to Modula VLMs is completely computerised via a graphic touch screen





user interface with colour display and intuitive icons that simplify the learning process for operators. The uses for a Modula VLM are wide and varied. For example, they can be used as automatic dispensers that provide assembly areas with the materials needed on the production line.

Or they can be set up as a store, or used as a buffer for the production line or as a spare parts warehouse. Whatever the operator's "role", they no longer have to inspect shelving to find the materials they are looking for: it's the system itself that finds the materials, records stock levels and issues repeat orders whenever necessary. Here's another feature: the vertical shelving is modular and potentially infinitely expandable. The savings a business can make by adopting an intra-logistics system like this are huge and there are various VLM models with different specifications.

It starts with the minimal footprint of the Modula Slim which has a depth of less than 1.6 metres, and goes go up to the Modula

OneTon with a tray and bay width of 4100 mm and a payload per tray of 990 kg!

Storage solutions also include an internal bay that constitutes the ideal solution for companies needing to minimise their use of floor space, whilst the external bay offers an excellent ergonomic workspace for operators having to pick heavy products.

VLMs can then be connected to anthropomorphous robots, lifting equipment, zero-weight cranes and other automation systems to create a lean, compact factory able to communicate with other systems and automated devices.

While manual solutions could handle 40 order lines per day, now with Modula this can be 500.

VLMs transform the whole process: in the past, operators had to use a ladder to reach a component, hold on tight at a height of 3 metres, keep track of the event with picking slips and then record it all afterwards.

A simple operation like this would require 4 people, while today you need only half that number.





However, the most important revolution is that these VLMs are equipped with a Modula Cloud device that means you can receive incoming warning signals when any faults in the machine are detected, keeping the customer

informed in real time and providing adequate support for preventive maintenance activities. This exchange of information will be essential in the factory of the future. This is an added value that makes it possible to collect and

monitor, in the Cloud, all data associated with the VLMs in order to keep track of their operation at all times and provide a service whose goal is to consolidate the relationship between company and customer, resulting in benefits both for the Modula production process and also for the customer. The result is that the Modula system processes a large amount of data that can then be transmitted to help people use the systems, or intervene in real time in the event of improper use, or provide information well in advance of the next maintenance task.



Modula in the Beverage industry

If you are wondering how a business operating in the beverage sector can make use of the benefits of a Modula VLM, it will be made easier by relating the story of Vonpar Refrescos, one of the largest Coca Cola bottling companies in Brazil, with a production unit in Porto Alegre (RS) supplying the areas of Rio Grande do Sul (RS) and Santa Catarina (SC).

At its production site where it bottles all Coca



Cola products on a continuous production line running 24/7, changing equipment and dies on the bottle filling line is a routine activity within the production process. Traditionally, these equipment and dies, which are very heavy items, were stored on high, inconvenient and bulky shelving units spread right across the factory.

Operators had to load them manually on to trolleys to move them around and bring them to the machine, change them over and then bring the replaced items back to the shelves, wasting lots of time looking for and transporting the pieces and requiring lots of physical effort from the operators. With the installation of a Modula VLM Model ML50D at 9.5 m in height and with a payload of 500 kg per tray, fitted with the Trolley (tray extraction and transport device), the equipment and dies could now be stored much closer to the production line, reducing the time needed to locate and transport them. With the Trolley, the physical effort required of operators is reduced to zero and so is the possibility of picking errors. Each replacement set is mapped to a single tray and can be retrieved by calling that tray. This was not the only option chosen by Vonpar, as they also fitted their Modula system with an

Automatic Door to protect the stored equipment from dust and external contamination.

The possible applications don't stop here: many bottling plants have chosen Modula to store their labels, mapping them tray by tray and retrieving them just in time for production. Where before operators would have to go in search of the correct label and pack, now with one click they can manage the entire set of labels, keeping them safe from, amongst other things, dust, dirt and damage, and making it very easy to carry out an inven-

Considering that access to traditional warehouses and shelving units was not controlled, with Modula however this can be done via a specific login and password or just using a company security badge or EKS.

www.modula.com







TMG IMPIANTI, PACKING AND PALLETIZING SOLUTIONS

stablished in the 1976, TMG has been successful on several global markets, thanks to a continuous research and a professional experience that allowed to gain a qualified technological know-how, to apply in the end of line systems all over the world. The direct contact with the customer is a chance of constant innovation of our packing machineries range, resulting progressively suitable for any needs and different applications. The products range comprises carton erector, carton packer, carton sealer, palettisers, depalettisers and robot. These machines are often combined together to supply complete turnkey solutions of automated packing systems end-of-line. In the latest years, TMG has realized many palletizing and packaging systems of different products, especially in Beverage sector, in which it has satisfied many international customer's needs.



Nowadays TMG produces around 200 palletisers per year and has installed almost 7000 palletising systems all over the world since 40 years. Production range: Palletisers - Carton erectors - Case Packers and unpackers - Tape and Glue sealers - Robots - Stretch wrappers - Conveyors and transports - Pallet handling systems.

Market sectors: TMG Impianti is specialized in handling bottles and containers, both glass and plastic (like PVC and PET) for the food sector, beverage (wine, juices, beer etc.), chemical

and home and care industry (shampoo, detergents, washing powders) and special applications like mineral oil and edible oil. Another important industry where TMG Impianti is present is the "big bags and sacks". The company is one of European leading company in the sacks - big bags palletisation with several applications around the world in this industry.

www.tmgimpianti.com



PROCESSING | FILLING | PACKAGING | RAW MATERIALS



FIERA PROFESSIONALE DELLE TECNOLOGIE PER BIRRE E BEVANDE 20-23 FEBBRAIO 2022













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in contemporanea con





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ZAMBELLI: DIFFERENT PRODUCTS, SAME HIGH QUALITY

ambelli, since 1969, designs and manufactures cuttingedge technical

solutions for the packaging industry.

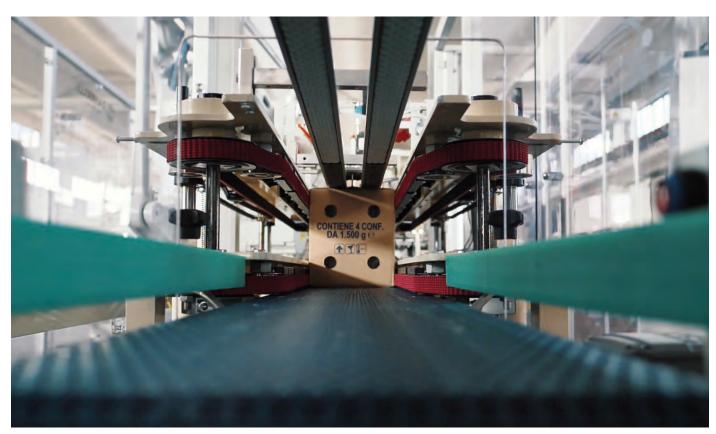
50 years of business, 2 generations at work and hundreds of customers worldwide

50 years have passed since Flavio Zambelli decided to



start his small business in Zambelli core values Bologna downtown. Since then, thanks to his perseverance and the following generations, Zambelli continues to grow and proudly serve its customers all over the world.

Behind every machine supplied and every service rendered, there are people. Working hard, sharing the joy of a successful project, this is what gives us the strength to grow and always







SIMPL-CUT™

The Simple Revolution

Roll-fed Labelling will never be the same.











FOOD & DIARY

Simpl-Cut™ introduces the cutting-edge next generation of automatic labelers. Completely innovative cutting system and gluing concept that revolutionizes the traditional operating principle of the Roll-fed world.

What's on the line?

Ingenious Cutting System

Change blade in 10" without adjustment

glue roller before label cutting

Single Drum

for three operations: gluing, cutting, label application

3, 4, 5 and even 6 different division drums on the same station

All-In-One

Roll-fed cold glue and linerless pre-glued technology











move forward.

Zambelli is a large family which includes relatives, colleagues and, above all, customers.

Zambelli business approach

- Market research & target identification
- Development of ideas & design
- Collaboration with customer to adapt to its specific needs
- Prototyping & test
- Manufacturing, installation & training
- Continuous exchange of information
- Planned maintenance, service & spares

Who we are and what we do?

We are #MarketOriented, because we are constantly reaching out to new horizons.

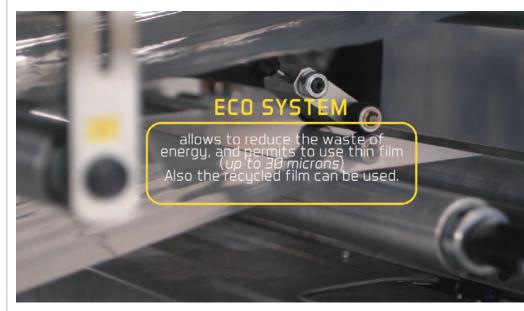
Starting from our core industry, Food & Beverage, over the years we have developed packaging machines also for pet food, baby food, home care & personal care, Industrial goods as bearings and consumables for the welding industry and many more.

50 years of perseverance and success, an ongoing

story for Zambelli and its friends.

We design #PowerfulSolutions, because thanks to our experience we design and manufacture packaging machines that fit the needs of our customer: if the requirement is to package products with LDPE (Low Density Polyethylene), Zambelli makes avail-

able its best Shrinkwrappers suitable for film only, flat pad + film, tray + film. If the request is for cardboard packaging of various sizes, Zambelli Cartoners and Case Packers – Wrap Around or preglued RSC – are the best solutions; if it's not enough, Zambelli provides Robotic System tailored to any application that requires specific han-







dling and Combi machines made by the combination of Shrinkwrappers and Case Packers.

Our solutions are versatile and customized, every project is different but our commitment remains the same.

We are #CustomerOriented, because for us most important is to find the best solution for customers needs.

Our attention is always focused on their production process and its needs. For this reason, to fully satisfy our customer, we are willing to provide various types of services pre and after sales:

- Design
- Installation
- Technical Documentation
- Service & Spare
- Upgrades
- Training for technicians & operator

What we can do for you and your project?

Three easy steps:

Meet up - contact us for a first meeting.

Talk & Plan – let's talk about your ideas and how we could develop them together.

Design & Collab – now the fun part: let's design! We work together to make everything perfect according to your needs.

Contact us:

- zambelli@zambelli.it
- (+39) 051 66 61 782
- Via Ferrara, 35/41 San Pietro in Casale, Bologna (IT)

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EQUIPMENT FOR REFRIGERATION, STORAGE AND TRANSPORTATION OF FRESH AND FROZEN FOOD

or over 50 years, Zanotti Spa has been designing and manufacturing equipment for the refrigeration, storage and transportation of fresh and frozen food. Founded in 1962 as a family-run business with the conception of the new and revolutionary "uniblock" system, a complete cooling system that is autonomous and ready to be used for small needs, the management changes made in 2002 led the Zanotti company towards international grounds and turned it into a managing structure that was better prepared to face competitors worldwide. Over time, Zanotti has improved its series, which are now the most complete offers available on the market. Zanotti can meet the food cooling needs of the entire cold chain, thus, of the preservation of raw materials, of their processing, storage and distribution to supermarkets, specific shops or restaurants. The units designed for refrigerated transportation com-



plete the series and ensure foods are handled safely. The products developed by Zanotti cover the needs of small to medium-sized cooling necessities, as well as the needs of logistic and storage centers: monoblocks, multi-compressor stations, condensing units and cooling systems for food, but also for the aging of cold meats and cheeses, to refine wines or to dry grains in silos. The diesel unit completes the cooling chain with its split battery system or others, which were specifically designed for the short, medium to long distance transportation of food. The industrial division designs and implements equipment for ice tracks, like the new ones of Courmayeur and the Arena of Minsk, which is the

biggest one in Europe. Recently, the company acquired a new contract to make a track, with Olympic features, in the new ice stadium of Kazakistan. The works will soon begin. The installation will be implemented with the latest free-cooling technologies that use the cold from outdoors at certain times of the year. Recently, Zanotti was chosen by a major airline of the United Arab Emirates to make a system for their new catering center for a value of 21 millions of dollars; in the international airport to increase the production of 260,000 meals a day that will be distributed on board of the new Boing fleet. It's one of the biggest and most modern structures of this kind world-



BEA Technologies это полная линейка фильтров и систем фильтрации для пищевой и питьевой промышленности



Итальянская компания, базирующаяся недалеко от **Милана**, активно занимается проектированием и производством систем фильтрации, **ориентированных на пищевые продукты и напитки**.

Bea Technologies производит в абсолютно сертифицированном чистом помещении широкий ассортимент фильтров и стерилизующих мембранных картриджей, в соответствии с требованиями GMP, гарантируя их высокое качество.



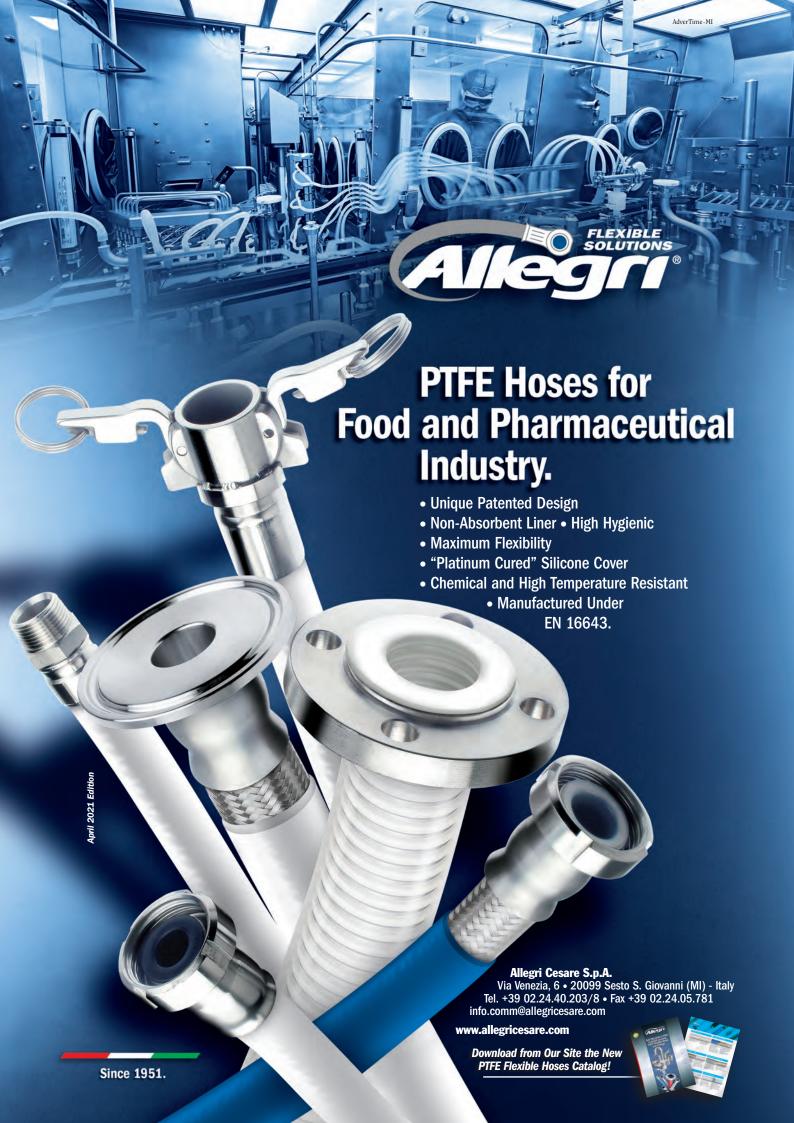
wide and, therefore, it requires highly reliable systems, top notch final touches and strict hygienic conditions with regards to the equipment. As a result of this important contract, Zanotti recently won the tender for the supply of a similar installation; which should be implemented in the new airport of Muscat, in the Sultanates of Oman. Other successes ensure the reliability of the Zanotti installations, implemented worldwide, such as the one of the Kabardino-Balkaria Republic to design and provide an installation to preserve apples in a controlled atmosphere for long periods, up to 7 months. Here, Zanotti has crushed the German competitors by presenting projects with advanced technologies that use intermediate nontoxic fluids from a nutritional viewpoint. Nationally speaking, Zanotti has completed works with a leading Italian cheese manufacturer by implementing an aging system of the highest level thanks to the latest technologies; maximum energy savings with low operating costs, maximum reliability to reduce maintenance and to ensure the continuity of operations through centralized management and with a supervision system. Today,

Zanotti Spa is an International Group with production plants in Spain, England and it counts on a strong network of certified suppliers who provide expertise and assistance worldwide. The quality of the Zanotti products is the primary concern of the production unit. Actually, the products have been ISO 9001 certified in Italy, they have received the EC marking in Europe, the Gost in Russia and the UL in the US for several years now. These markings and certifications are based on the local standards of quality. The attention devoted to customers and the flexibility of the products are essential characteristics for Zanotti: investing in research and development to better meet customer demand by providing more convenient solutions in terms of energy savings and reliability of use is a priority. The know-how Zanotti acquired over 50 years also concerns the environmental aspects involved since the products are developed to provide low energy consumptions and reduced noise levels; as to meet the current technological trends that aim to contain greenhouse gas emissions. This is how the BESTCOP® technology was created. It is applied on the

motorized condensing units that are manufactured by Zanotti to improve the efficiency and energy consumption levels of the cooling equipment. This basically can be translated into energy savings (from 15 to 20% depending on the different environmental conditions).

The technological research is at the base of the investments Zanotti allocates every year to better meet the needs of the customers' requirements by taking their work needs and the greenhouse gas emission standards into consideration. Innovation, energy savings, quality and competence are the key words that best describe the works implemented by Zanotti up to today and they also represent a promise for the future.

Recently Zanotti is joining the Daikin Group. This special event symbolizes the 3rd phase of evolution of Zanotti and can now be truly considered to be one of the largest, if not THE largest refrigeration Company in the world today, with certainly the most diverse product range imaginable. Zanotti is still the head office for the refrigeration field, but is now stronger with a great partner like Daikin. n









TECNINOX DI A.NAMAZIANO S.R.L.



GEA HIGH PRESSURE HOMOGENIZATION TECHNOLOGY IN BEVERAGE INDUSTRY



EA is the technological leader for dynamic high pressure ho-

mogenizers and plungers pump, in many industries and applications.

How does high pressure homogenization enriches beverages?

Enhanced stability, shelf life, viscosity, color and taste are the essential characteristics that products obtain through homogenization process, gaining digestible and assimilable properties.

In beverage industry, one of the most important goal that homogenization contribute in meeting is the reduction of product's physical instabilities, in order to create stable emulsions and dispersions over time. Dispersions are the main beverages products that benefit from high pressure homogenization indeed.

The use of high dynamic pressure and homogenizing valves enable to subdivided particles present in fluids at the



required size while efficiently mixing ingredients at the lowest possible pressure.

All these features define homogenization as one of the most performing and eco-friendly process, compared to any other mechanical ones.

What makes GEA your ideal partner?

The most important key of success relies in the close collaboration with customers. The connection of common efforts made from experts and researchers enable to implement innovative and tailor-made solutions, to maintain continuous product development and to guarantee efficient operations with excellent results on the final products.

Thanks to a strategy of development of both established and potential applications, often based on cooperation with our customers' Research and Development Centers, GEA can offer highly specific and custom-

ized process solutions to always meet, ensure and repeat over time product quality excellence.

Over 70 years of manufacturing and innovation enable GEA specialists to count onto specific know-how environment that sustain a complete range of homogenizers, from laboratory to the industrial scale.

All machines meet the most stringent hygienic requirements and quality control systems. All homogenizers are CIP and SIP'able and are available with cGMP documentation, approved FDA and 3-A certification

GEA support clients for the IQ/OQ qualifications and product test (FAT-SAT) as well.

Find the perfect homogenizer for your plant and product

The Laboratory and the Innovation Center, just refurbished in November 2019, represent a unique resource for customers to directly test homogenization technology on their product samples, refine receipts, develop high efficiency homogenizing valves and evaluate the performance of installed machines.

Highly qualified staff can support customers in the development of new products, to test maximum process efficiency conditions and product scalability to industrial production processes.

At your side, when you need it the most: Discover the new GEA homogenizer streaming offering

While the global situation is still uncertain, we reckon on finding new ways to overcome unexpected challenges for shaping new possibilities together.

GEA homogenizers Team is fully operational and provides a complete range of resources for any customer looking



Add value to your process

GEA homogenizers are highly customized process solutions to always ensure excellent product quality.

- $\bullet \ \ Improved \ organoleptic \ properties$
- · Longer shelf-life
- Reduced use of addivites or stabilizers
- · Reduced oxidation and alteration processes
- · Improved viscosity
- Improved mouth feeling and taste
- · Aseptic execution available
- High flow rate (up to 80,000 l/h)





for virtual assistance for laboratory tests, FATs and SATs.

Innovation & customer satisfaction lay at the very basis of our core business.

Our experts constantly commit themselves to adapt projects to changing needs and promptly tackle extraordinary situations, in order to guarantee the high quality support offered everyday.

Ariete Series: the power behind the quality

Ariete Series homogenizers are the state-of-the-art technology for powerful, reliability and customized solutions, projected to be suitable for several industries and meet the demanding standards required by the market. These versatile machines

can be easily installed in remote control systems and complete process lines, reaching up to 1500 bar homogenizing pressure.

NiSoCLEAN 2.0: Just cleaned as it shines

The optimized compression block NisoCLEAN 2.0 configured for Ariete Series homogenizers focuses on improved hygenic design for excel-





lent high pressure performances.

This improved design has been conceived in order to satisfy the increasing food & beverage market's demand and ease cleanability procedures, optimizing machine maintenance while always ensuring performances reliability.

The compression block reduces stress on the product flow, guarantee TCO reduction and ideal homogenization effect on final products.

One Series: accessible high quality technology

The homogenizers from the One Series combine convenience and absolute quality to deliver unmatched benefits. These 3-piston homogenizers are manufactured to ensure easy maintenance and simple installation into small-medium productions of dairy products, beverages and soft chemicals.

GEA Homogenizers production site - Parma

Founded in Parma, Italy, in 1947 by the Soavi family with the aim of engineering and producing high-pressure homogenizers for the dairy industry, the company started soon to extend their core business and export abroad, in order to satisfy the increasing customer demands.

Following the acquisition by GEA Group, the global technology leader in engineering and manufacturing, in 1994 the global visibility and strength of Gea Niro Soavi reached the highest peek, becoming a worldwide leader in homogenization technology.

More than 150 employees, 20.000 m2 of pro-

duction area and 10.000 operating machines all over the world demonstrate a long lasting excellence expertise always with an eye focused on future, innovation and customer satisfaction.

"Food Valley" is the evocative name by which is called the geographical area where our production site has grown, due to the numerous market-leading food processing companies that started and developed their business here.

This unique environment has allowed GEA experts to follow the trend and develop the outstanding manufacturing capabilities that lie behind our homogenizers.

Discover more on gea.com/homogenizers





M.F.T. INTRODUCES NEW AUTOMATIC FRUIT CUTTERS

ECHNOLOGY -

Morrone Food Tech has recently developed two new models of AUTOMATIC FRUIT CUTTERS for VARIOUS TYPES OF FRUITS

hanks to the large experience gained over the years in FRESH-CUT FRUIT and DEHY-DRATED FRUIT processing lines, M.F.T. has recently implemented their very popular AU-TOMATIC FRUIT CUTTERS with new integrated functions making them suitable for slicing several types of fruit.

The long experience of M.F.T. in the dehydrated fruit sector has resulted in the development of the AUTOMATIC RING SLICER mod.

MW-R which has now new application to the fresh-cut and preserves fruit sectors. The automatic ring-slicer has now been implemented



for CUTTING into RINGS and eventually coring APPLES, PEARS, PEACHES, NECTARINES, PER-SIMMONS, KIWIS, ORANGES, LEMONS and PINEAPPLES with the possibility of producing smooth ring slices (down to 2mmthickness) and crinklecut apple slices.
Particularly dedicated not only to the dehydrated fruit business but also to the freshcut business, the AUTOMATIC FRUIT WEDGER AND CHUNKER mod. MW is now available for coring and cutting not only APPLES but also



PEARS, PEACHES and NECTARINES into SEGMENTS, CHUNKS and STICKS. The same machine may also be used for slicing PERSIMMONS, OR-ANGES, LEMONS and TOMATOES. The new applications make this versatile piece of equipment today even more suitable to freshcut fruit production in small and large business thanks to its modularity. Both the MW and the MW-R model are compact solution including the washing, feeding and cutting sections and can be AUTOMATI-CALLY OPERATED which increases the safety and profitability of your business. n

Visit: www.mftitalia.com











Ideas, solutions and plants for the food and beverage industry

Passion, expertise and innovation are the keys to the success of SAP Italia. Since 1983, the company has been offering highly technological plants for the food industry.

Over the years, SAP Italia has developed a deep know-how in different fields of application and today it plays an important role in its sector as an international leader.

Thanks to constant research and various fruitful collaborations, the company is able to meet its costumers' specific needs and provide them with tailored high-tech solutions.

The wide range of SAP Italia services includes in-depth feasibility studies, comprehensive and detailed estimates, customized design according to specific requirements, software development, installation and testing, personnel training and preventive maintenance.

Furthermore, SAP Italia 's customers can always count on the support of a team of experts.

What really makes SAP Italia different from its competitors, is its personalized approach to every single project, which is designed upon the specific needs of different customers. By modeling and adjusting its technology, SAP Italia can contribute to its customers' success and to maximizing the results of their investment.



Mixing and Carbonating Units



Pasteurization Plants



Cip Cleaning Plants



Continuous Sugar Dissolvers



Syrup Rooms



Aseptic Tanks



Food Processing Plants



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MOSAIC - THE SAFETY CONTROLLER THAT MAKES THE DIFFERENCE

Quick setup, total integration of all safety functions and strict compliance with machine regulations: in addition to these traditional strong points, the Mosaic Safety Controller also allows to build and upgrade installations easily.

oday the design and implementation of a safety system for an automated line must also allow for future expansion or adjustment of the project, which may affect single machines as much as entire parts of the system.

The Mosaic solution developed by ReeR responds to this request: it is modular, configurable and capable of managing all system's safety functions.

Furthermore, it enables designing safety systems with the knowledge that they can be expanded, integrated, or adjusted at a later time.



Mosaic can manage safety sensors and signals such as

Light curtains, photocells, laser scanners, emergency stops, elec-

tromechanical switches, guard-lock safety door switches, magnetic switches, RFID switches, safety mats and edges, two-hands controls,



DBS

Brushless servomotor with integrated drive







hand grip switches, encoders and proximities for safety speed control, analogue sensors (i.e. loading cells, pressure switches, temperature measurement, flow and level measurement, etc.).

Advantages

- Reducing the number of devices and wiring and, therefore, the overall size of the project
- Speeding-up the control panel construction
- Allowing a tamperproof system configuration
- Easy configuration through a graphic interface
- No more laborious wiring needed as with traditional solutions
- A lower number of electromechanical components also means a better Performance Level and, therefore, a higher Safety Level
- The project report provides the actual values of PFH, DCavg and MTTFd according to EN 13849-1 and EN 62061

Depending on the machine complexity, the system can be composed by a single Master Unit in stand-alone configuration (8 digital inputs, 2 inputs for Start/Restart interlock and EDM, 2 pairs OSSD safety outputs, 2 status outputs, 4 test outputs) or, by the Master Unit and up to 14 expansion modules, reaching its maximum capabilities with:

- 128 digital inputs
- 32 Fieldbus inputs
- 32 Safety outputs
- 48 Status outputs
- 128 MSD operators
- 48 Timers
- 8 Muting operators
- 8 Safety guard lock operators
- 32 Probes

The MB communication expansion units allow Mosaic to interface with the most common industrial fieldbuses. The MCT interfaces allow the use of just one cable for the de-centralization of the expansion modules, making it a suitable solution for linking multiple ma-

chines along a production line.

SPEED AND MO-TION EXPANSION UNITS

The MV expansion modules have been developed for motion control (axis speed), enabling safety speed monitoring (up to PL e) for zero speed control, maximum speed, speed range and direction (rotation/translation).

The Mosaic modules integrate incremental encoder inputs (frequency up to 500 KHz) and proximity switches and offer the possibility of configuring up to 8 speed thresholds for each logic output (axis). Each module controls two logic outputs that can be configured through MSD and is thus capable of controlling up to two free axes. A few applications example.

Zero Speed Control:

Mosaic verifies that the dangerous device is at a standstill; this en-



ables unlocking gates or movable guards so that operators can safely access the dangerous areas.

Maximum Speed

Control: the system verifies that the safety speed set (maintenance speed) is not exceeded. This enables to safely perform maintenance operations and system adjustments.

ANALOGE INPUTS EXPANSION UNITS

The new MA modules

allows the connection of analogue sensors such as load cells, pressure switches, temperature measurements, etc.

With 2 (MA2) or 4 (MA4) independent isolated analogue channels (500 V).

Individual channels can be paired-up to allow sensor reading redundancy.

INTUITIVE SETUP

Mosaic Safety Designer is a free-of-charge soft-ware for system con-

figuration. Its drag & drop graphic interface is simple and intuitive. Three functions prove to be particularly useful among the designers:

- 1) **validation**, allowing checking the design phase,
- 2) monitor function, allowing for testing during installation, and
- 3) simulation function, allowing simulating the system functionality during design.

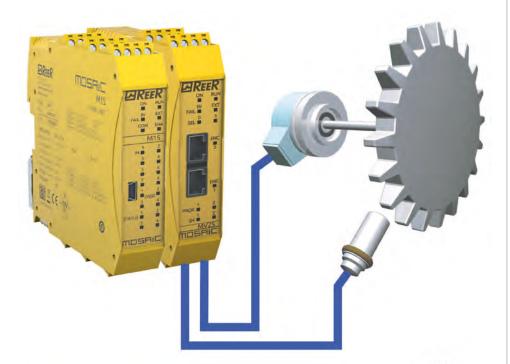




In addition, the **Project Report** provides the actual PFH, DCavg and MTTFd values necessary for calculating safety function performance level.

Example of application

Protecting palletizing systems of irregular goods (materials not easily stackable): the presence of seams, labels and protrusions, contributes to the irregular geometric shape of the pallet, causing false signals from the sensors. To solve the problem and achieve high reliability of operation of the plant while ensuring all safety requirements, the light curtains and muting sensors used are managed by the Mosaic Safety Controller. This solution, in addition to ensuring the functionality preventing undesirable stops due to false signals, allows you to easily adapt the system to the safety features of the system in accordance with the IEC TS 62046 and other existing regulations. All timings of the system and management of muting functions are configurable by the Mosaic Safety Controller, allowing maximum versatility of the plant.





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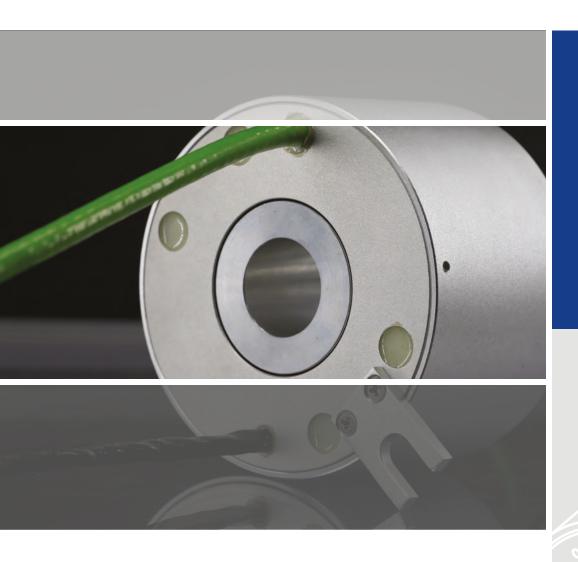
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WS, PROCESS EQUIPMENT FOR THE BEVERAGE INDUSTRY

S is a Company, founded in 2005, working as process equipment supplier for the beverage industry.

During these years WS has achieved a very good reputation in the beverage industry field, managing to cooperate with the major global players, such as Coca Cola, Pepsi Cola, Nestlé Waters and Orangina-Schweppes, and with private investors installing new production facilities, quite often green fields, in emerging Countries.

WS has met new standards for product quality, energy saving and maximum plant output while complying with the strictest criteria for hygiene and safety.

All the devices are entirely conceived and designed to guarantee the best requirements in terms of microbiological, physical-chemical

and organoleptic properties; the entire production process and software development are managed internally, as well as installations and commissionings which are carried out with WS's own resources.

WS' products for beverage industry are: water purification plants (mechanical filtration, microfiltration, reverse osmosis, UV disinfection, sterilisation) designed according to the Customer's exigencies and the chemical analysis; sugar dissolving systems (single batch, double batch and continuous up to 35.000 l/h); semiautomatic and auto-

matic syrup rooms; premix units; flash pasteurising units; ozone generators; carbonating equipments (water, wine, beer, soft drinks); in line syrup blending systems and ingredients mixing systems; steam sterilisable microfiltering systems (juices, beer, wine); mineralising equipments; equipment for preparation

Continuous sugar dissolver





Water ultrafiltering system

of non-chemical bottles rinsing and disinfecting solutions (such as ozone) and chemical solutions preparing devices (peracetic acid, hydrogen peroxide, chlorine, etc.); equipments for the preparation of sterile water; manual and automatic CIP systems.

Thanks to its skill and process expertise, today WS is widely present worldwide even with turnkey solutions including ancillary equipment (cooling equipment, boilers, etc.).

WS' philosophy is to manufacture high quality and reliable equipment, equipped only with top brand components: ALFA LAVAL,

ENDRESS+HAUSER, PALL, ANTON PAAR, SIEMENS, FESTO, **SPIRAX SARCO** are the typical components our Customers will find on Their plants.

The choice of providing only state-of-the-art solutions has brought us to be appointed as officially authorized integrator by

ALFA LAVAL.

Between main technical references, WS can list the supply of two fruit juice tubular flash pasteurizers for aseptic filling to **ORAN**-**GINA-SCHWEPPES** in France; furthermore, it's significant to point

out that WS is included

in NESTLÉ WATERS'

authorized suppliers list for water purification systems: recently an important contract for the supply of a top-technology water treatment plant in the far East has been finalized. Amongst last supplies (early 2016), WS also boasts a complete line for soft drinks production in Las Vegas – USA (Coca Cola co-packer): from water treatment to hot fill pasteurizer, through sugar syrup preparation and ingredients mixing, also including CIP equipment. WS consider Customer Service one of the greatest keys to success: entire business, marketing, sales and profits depend on Custom-



refreshing taste of technology







WATER PURIFICATION

SUGAR AND SWEETENERS DISSOLVING

CONCENTRATES PREPARING

SYRUP STORAGE

PASTEURISING

DOSING AND BLENDING

PRODUCT CARBONATING

WATER OZONISING

FLUIDS HANDLING

CLEANING AND RINSING

HOMOGENIZING

TURNKEY PROJECTS









Flash pasteurizer

ers' satisfaction so the after sales team is constantly trained to perform the simplest solution in the shortest possible time to support the Customer's business.

"BLENDSYSTEM M" PREMIX UNIT

The growing market's confidence gained by process plants manufactured by WS, allowed a continuous development of blending technology for carbonated soft drinks (CSD) production to such an extent that We reached a very high level of specialisation in manufacturing mass controlled blending systems, named:

BLENDSYSTEM M.

The BLENDSYSTEM M is an equipment for prepar-

ing beverages, completely preassembled on a skid for an easy and quick shipment and installation, conceived mostly for the production of carbonated soft drinks (CSD), but also carbonated mineral water (CMW)

and still water (charged with nitrogen in order to increase the mechanical resistance of the bottle). The required quantity of ingredients (water, syrup, and CO2) is carefully measured and dosed in an electronically controlled continuous process.

The whole system, realized to guarantee the highest qualitative standards and a qualitatively constant production, also running in conditions of considerable format change, is completely preassembled on stainless steel circular-section skid for an easy and efficacious cleaning. It usually includes the following subsystems: inlet water deaeration: a vacuum pump removes incondensable gases; the pump is conceived to maintain the dissolved oxygen

level below 1 ppm values; carbon dioxide dosing (or nitrogen in case of still mineral water production): a modulating valve and a mass flow rate transmitter inject carbon dioxide in quantity that is proportional to water quantity loaded to the deaeration tank; the water flow rate is usually measured by a magnetic flow rate transmitter, which may be replaced with a mass flow rate transmitter in case water presents a very low electrical conductivity level. A special gas injecting and mixing system - specifically developed by WS - performs a careful mixing with the water to be treated and, hence, best results in terms of product perlage; the carbon dioxide contents is maintained constant in the product receiving tank by a supervising software, which checks possible fluctuations in feeding water temperature and product buffer temperature; the effective dissolved carbon dioxide contents in the product is checked using a carbometric unit, installed in by-pass on the filling machine feeding line; syrup dosing and mixing: at first syrup is stored in a

small buffer tank, whose

atmosphere is modified and enriched with carbon dioxide, in order to avoid oxidation occurrence. Syrup injection is made by a sanitary design modulating valve and a mass flow rate transmitter in a quantity which is proportional to the water amount fed from the deaeration tank; furthermore using the mass flow rate transmitter, it is possible to check constantly the effective density of the inlet syrup and therefore to compensate immediately for the dosing and to stabilize the sugary concentration in the end product within established bounds (usually ± 0.05 °Bx). A specific refractometer installed in by-pass on the filling machine feeding line,

allows the constant check

of the product and, if necessary, its adjustment; similarly the instruments minimize waste of both syrup and product during transitory phases of production, such as start and stop. Furthermore, customized solutions for product cooling are available, depending on the environmental conditions of the system installation.

The supervising software loaded on the mass premix unit - BLENDSYSTEM M - is conceived to guarantee the best results in terms of dosing, offering at the same time an easy control by a friendly user interface; this software enables on one hand to set the main production parameters and visualize their state graphically and on the other hand to

set the statistics parameters (ca, cp e cpk) connected to that kind of production. Using a more advanced version of this software, associated with specific instruments, it is also possible to control automatically saccharose inversion, so that the need of intervention by laboratory technicians is reduced.

The equipment is equipped with field buses (MPI, PROFIBUS or ETHERNET) for a complete integration in the bottling line and the control of production, cleaning and sanitizing processes.

www.watersystems.it







REALITY ACTIVE IN PROJECT AND PRODUCTION OF BOTTLING PLANT MACHINERY

n the beverage industry, the automatic washing of recycled bottles has now reached a high level of specialization. In this context, works AKO-MAG, company located in Soragna (PR), able to offer a varied production, which includes bottle washing machine, rinsing machine, sterilizers for glass or PET bottles, crate washer and accessories to complement. Very large is the choice of the washer, the potential of which obvi-

ously varies in base at the model, and the ranges it is from 100 to 60.000 bph.

The modular structure of all installations allows to gradually increase the functions and the level of sophistication, including special washing sections and sanitizing, automatic control of process parameters, security systems, energy recovery, reduction of discharges and automatic sanitization of the parties most important from the point of view of hygiene.

Start the washing

At low production capacity, the range offer GENESI, available in very small dimensions in order to be inserted in any operating environment. Designed under the indication of the producers with low production capacities, the series has a simple but functional washing cycle, which lowers operating costs (water, energy, detergent) without negatively affecting cleaning bottles to recycle, the complete removal of the labels and their total evacuation outside. The particular ease of use and maintenance, increases productivity and reduces downtime. The modularity of the GENESI series allows at the customer to "build a machine to measure", adapting it from time to time to different types of use (water, wine, oil, beer, soft drinks). Constructed in accordance

with the Machinery Direc-







.... THE BOTTLE WASHER



AKOMAG s.r.l.

tive (CE), is equipped with all the accessories needed for the proper functioning: a heat exchanger built with stainless steel tubes arranged geometrically to prevent the deposit of mud or various precipitation that would compromise the performance or, alternatively, a combustion chamber built with direct burner operation. Safety guards and dust cover to protect the unloading of bottles; grouped grease; saving valve for the water network and automatic control of the presence of water in the last rinsing station; electronic speed control; electronic security on the main gearbox that

stop the machine in case of overload; spray pumps with casing and impeller made in stainless steel AISI 316 and protective filters; valves for emptying the waste paper and spray tanks; control panel adjustable, made in stainless steel; IP55 electrical plant; gauges and thermometers in visual range of the operator; setting and control of all the machine by "touch-screen". This are the main amenities that characterize the series. The GENESI machine is also arranged for the introduction of detergent and liquid additives in the bath and in the detergent tank, disinfectants and other products in the spraying

tanks. Internal spraying (made with self-cleaning rotating nozzles) and external high pressure spraying are easily removable for routine cleaning and maintenance. The loading and unloading of bottles is completely automatic, and perfectly synchronized with the movement of the main chain.

Dry cycle

To streamline the washing cycle, the company has realized the HYDRA series, a series of fully automatic machines which comprise a first station for emptying the bottles followed by pre-washing spraying and first pre-maceration bath. This configuration





helps to reduce the pollution of the detergent bath and reduce fuel consumption. The triple station for labels extracting ensures their complete detachment from used bottles, while the rotating filter displaced over the entire width of the machine ensures the evacuation outside.

The bottle washing is complete with indoor and outdoor spraying, which occurs with high-pressure cleaner distributed with rotating nozzles self-cleaning and self-centering. To complete rinsing, however, ensure the phase abatement alkalinity followed by spraying with external and internal water network.

Built according to the Machinery Directive (CE) also, the series has a different predispositions that increase safety, including: sensors for slowing down and eventually stopping the machine in case of failure or obstruction of bottles on conveyor; detergent introduction and liquid additives in the bath and other products in spray tanks; the automatic loading and unloading of the bottles is perfectly synchronized with the movement of the main chain; the economizer valve for the water network and the automatic control of the presence of water on the last rinsing station.

Other amenities are im-

portant, as: automatic resetting of the chutes for loading and unloading bottles from the control panel; grouped grease; electronic variable speed with remote control (inverter); setting and control of all the machine by "touch-screen"; selfcentering and self-cleaning rotating spray at high pressure; external spraying easily removable for cleaning and maintenance; valves for emptying baths and spraying tanks; control panel made in stainless steel; IP55 electrical plant; gauges and thermometers in visual range of the operator. At the bottles unloading are arranged safety guards and dust protec-





tion. The electronic safety on every gearbox allows at the machine to stop in case of overload. The heat exchanger and pumps are always made in stainless steel. Very high productivity and automation in the wash meet in the HP model in the same series. Despite the sophistication, just an operator to remotely manage the entire wash cycle, verifying operation via control systems. The tubes of external washing are constructed so as to reduce maintenance to a minimum. But in case it will be necessary, the dismantling and cleaning are very simple. The regulation of the temperature in the tanks is automated through a modulating proportional pneumatic system, which offers a guarantee of accuracy and safety of operation. The main motor, oversized, ensures a long lasting efficiency by minimizing the mechanical wear. The electronic variable frequency allows to manage the main engines installed in HYDRA HP series via remote control. The automatic press for the collection of labels evacuated from the detergent bath is full of a recovery system of the detergent solution that accumulates in the pressing phase.

AKOMAG has dedicated several years to the creation of bottle washing ma-

chines and the high quality standard achieved by all its production, advanced technology and timely aftersales service, has allowed at this company to come in several primary and manufacturing with the certainty of having created a safe machinery and Quality for Various needs.

This undertaking was given by all its facilities, from design to engineering, from the search for the most innovative materials to the constant testing of the products in the works.

With this AKOMAG mission, every day thought to be better and invest in quality, with the knowledge to do a good job. 🟛





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We devise, design and construct equipment:

- for high production levels, including round-the-clock
- with continuous automatic control of the product quality
- no manual labour
- · no processing waste
- no product pollution
- recovery and saving of energy
- maintenance reduced to a minimum
- environmentally friendly
- respect for the raw material and the finished product
- instruction and training of the client's personnel
 - loan facilities







ALBRIGI TECNOLOGIE takes extraordinary measures to guarantee the utmost quality parameters for its clients









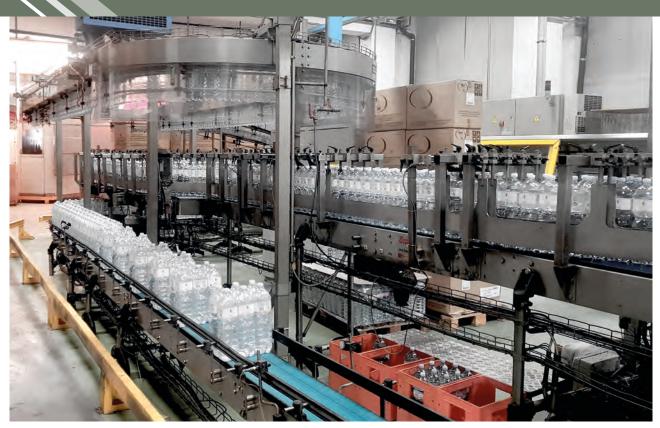








TURNKEY SOLUTIONS FOR BOTTLING AND PACKAGING BY BBM



BM Packaging is an Italian excellence company operating both nationally and internationally. The company specialises in the supply of turnkey water and beverage bottling plants. Our aim is to offer 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.

BBM Packaging, turnkey solutions for bottling and packaging, is today the byword for:

- Used equipment excellence, thanks to a careful selection and an overhauling and updating process, to offer machines at competitive prices on the market. Customers can also visit the 7500 m2 production plant to see and inspect the models and follow the revamping at every stage, until the FAT on the actual products;

- Technical assistance, with more than 50 highly-skilled technicians with over 20 years of



experience and competence in the sector to form a team that is able to support the customer throughout the life of the machine and on the different models by the main international manufacturers.

- Spare parts, whether it is normal usage wear or an emergency, BBM Packaging is a valid option for the supply of spare parts. Thanks to

- the wide range of available items, the fast delivery and the competitive prices;
- Much more, the knowhow is included in the BBM Packaging offer, following every customer through every step of the project, from upgrading to revamping and changes in the models of the main leading manufacturers. As a matter of fact, we offer

pre-sale analysis and the evaluation of the possible solutions, up to the realisation and the final delivery of the complete project, to guarantee a unique contractor for the whole process.

The high-quality of the BBM packaging offer is also proved by a **steady growth of the company over the years**, in terms of volumes, services and





personnel, establishing itself as a reliable choice for the customer's investment. Below some further details about our core activities which have pushed BBM to today results, with the turnover increasing by 45% in 2018.

USED MACHINE RECONDITIONING

The work on a used ma-

chine withdrawn from a previous owner, to bring it back to original conditions, is one of our key strengths and that is why we are always training ourselves on different kind of bottling or packaging machine.

The reconditioning work in BBM is carefully monitored by project supervisors, no detail is left behind, and the machine undergoes several steps to be reborn:

- Inspection, as it enters our factory we fill in a report about what to do in case of reconditioning and possible upgrades;
- Disassembling, to explore any spot of the machine and to decide whether it is fully operating or needs refurbishing or replacing;





- Cleaning and fixing;
- **Re-Assembling**, putting the machine back together, a work that requires the max amount of experience to be effective;
- **Testing,** the benchmark, we start the machine and we evaluate the success rate of our previous work.

It is not easy to determine the amount of work needed to go through the above phases, but BBM has developed enough experience to give customers a quite precise schedule for their project. Because a timely servicing is important, above all, for us.

AFTERMARKET: SPARE PARTS, SER-VICING AND ASSIS-TANCE BY BBM

Besides the sale of bottling lines and machines and their upgrading, BBM is appreciated for its aftermarket services. We offer a wide range of spare parts thanks to our well-stocked warehouse.

On the machines of a bottling and packaging line, we can run a complete check-up, giving customers a snapshot of the state of the machine. So, you will always know if it is working at full operation and reliably.

To best serve our customers we have three different maintenance plans, with the following goals:

- Keeping the efficiency of the machine and the line;
- Anticipating eventual faults, no matter the brand, as they are complex machines;
- Providing a detailed report with maintenance schedule and a list of spare parts, with different priorities.

We can cover blow molding machines, shrink-wrappers, filling machines, handle applicators, conveyor belts, air conveyors and palletizers by the leading manufacturers in the beverage market.

Our customers can full customize their plan, starting from three packages: Essential; Business; Premium.

MUCH MORE: UP-GRADING SERVICES ON BOTTLING MA-CHINES

Working in the sector of

second-hand machinery, we have developed **up-grading services**, allowing our customers to convert their machines to match or getting closer to the performances of new generation ones. For example, we offer several upgrades for shrink-wrapping machines, maximizing their efficiency.

REFERENCES: THE ACTUAL WORK ON BOTTLING AND PACKAGING LINES

Among the companies we work with, there are brands such as Coca Cola, Acque Minerali d'Italia, Nestlé Waters and Pepsi, but BBM does not work within the beverage sector only, it also collaborates with major firms in another sectors, for example in the milk industry. Surely, Latteria Soresina is one of the main Italian players on the market with a growing turnover and gathering other quality Italian brands. Latteria Soresina represents also one of the many cases of customers satisfied by the pro-



fessionalism of BBM services, as they already entrusted us for the production line of Peschiera Borromeo (MI).

That is why we have been contacted again for the same site in the province of Milan in 2018, to work on the increasing of productivity projects, through the installation of a new line dedicated to the production of UHT milk bottles.

The project has been very engaging as the customer presented us the need of a line that may eventually be combined with the one already installed and guarantee a backup for the production line of the fresh milk bottles: this market has different production demands and stricter deadlines.

The final aim was to have the **fresh milk line al-** ways working.

Of course, the first step was to visit the production site to evaluate the scope of the project, then we prepared the design of the new line to be approved by the management of the company, finally we implemented the best machines in the project and we started the operations.

BBM Packaging, next to the design, has also supplied the majority of machines of the new line, among them:

- one blow moulder, overhauled and guaranteed, which works with the 38 mm neck typical of milk bottles. Also on the blow-moulding system we took care of the manufacturing of as series of new moulds, customised for the Latteria Soresina bottles.
- one shrink-wrapping machine, working with film, also overhauled and guaranteed.
- one labeller.
- the air conveying system between the various machines.

All the machines are used ones, overhauled to be as new and guaranteed by BBM.

Particularly interesting, it has been an **upgrade on the blow moulder**, as a matter of fact, Latteria Soresina asked us to modify the machine to work with lower weight performs, in order to reduce the plastic material,

paying attention and respect to the environment, something that has always characterised the two companies.

The new line of Peschiera Borromeo, whose installation ended with the commissioning, by BBM, in January 2019, meeting delivery deadlines, produces the 1 litre bottle format, cylinder shaped, and it is able to work with two different packaging configuration with film, **3x2 and 4x2** (respectively working up to 40 packages per minute with the first one and up to 30 packages per minute for the second one), and it can produce about 12.000 bottles per hour.

In the end, BBM packaging Solutions has meet the needs of Latteria Soresina and, thanks to its great experience in offering line design and overhauling and installation services on used machines.

www.bbmpackaging.com





SMI S.P.A. INNOVATION AND SUSTAINABILITY IN THE CIRCULAR ECONOMY

y manufacturing machines with an innovative design equipped with IoT technology, SMI provides customers from all over the world with smart solutions, capable of satisfying their needs in terms of production efficiency, operational flexibility, energy

saving and ease of use and monitoring of bottling and packaging lines. The latest developments and the considerable and continuous investments in Research & Development have led to the launch of compact, ergonomic, ecofriendly machines, such as the ECOBLOC® ERGON integrated systems for the stretch-blow mould-

ing, filling and capping of rPET containers recently installed at Danone Group's Societé des Eaux de Volvic plant.

When we talk about purity and quality, it is the accurate work carried out by the bottling company Societé des Eaux de Volvic that comes to mind. The whole bottling process undergoes careful



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controls to satisfy the high levels of quality required by the French company and its owner Danone, a goal that is achieved by protecting the water source and safeguarding the natural environment all along the distribution chain, till the moment the bottled product is consumed. All of this is taken care of in minute detail, involving partners and suppliers, as with the recent investment for the purchase of a new bottling line, for 8L containers in 100% recycled plastic (rPET), which involved SMI for the supply of an integrated system ECOBLOC® ÉRGON. The project is the result of a strong synergy between Volvic-Danone and SMI; both companies shared goals and expertise from the design phase to the installation works, with every choice rotating around the necessity to get higher than average bottle performance and quality, safeguarding the final product, eco-friendliness and operational efficiency of the whole production process.



From the source to the table: the quality is always under control
Sustainable development, respect for the environment and product quality and purity are the fundamental elements at Société des Eaux de Volvic SA, company, which has been part of the French Danone food and beverage group (water dept.) since 1992. The natural purity

and unequalled quality of Volvic water begins by carefully protecting the source and accurately monitoring the natural environment from where this precious liquid flows. The water is conducted through stainless steel pipes from the source to the bottling plant, with-

out any external con-

tact; therefore from the depth of the volcanic stratum it reaches the protected environment of the inside of a sterile bottle. To protect the liquid from any external contamination, Volvic bottling plant was designed according to advanced automation and security criteria, fully satisfied by the ECOB-LOC® ERGON integrated system supplied by SMI to the French company. The bottle has the fundamental role of maintaining the purity of the spring water and preserving the quality until the product is consumed; for this reason, the bottles blown, filled and capped by the ECO-BLOC® ERGON system need to go through a long series of controls within the bottling line and every day undergo accurate

tests carried out by Volvic Quality Laboratory.

100% rPET bottles

Volvic natural, mineral water arrives at the consumers' table as pure as when it flows from the source and is not treated in any way that can alter the taste; for this reason the container plays a vital role towards maintaining the purity of the water, from the source to when it is consumed. The most widely used material for bottling water is PET (polyethylene terephthalate), an unbreakable, plastic material that is lightweight and 100% recyclable. Volvic's high regard of environmental issues led the French company to develop modern solutions for the recycling of PET, so that a new bottle can be produced from an old one. Volvic was one of the first companies to use recycled plastic (rPET) to produce containers and caps, slowly increasing the percentage of rPET, until it hit 100% with the new 8 litre bottle. The 8L container with a square base, in the same style as the smaller Volvic bottles, was studied by a designer at Danone to create an

extremely practical, home use, container-dispenser. Its shape, part of which is slightly tilted, ensures that the bottle can be easily positioned on a flat surface and, thanks to the special cap which is used as a tap, the supply of the product is convenient and easy. The new design of the maxi container was accurately reproduced by SMI, to create the moulds that are installed on the ECOBLOC® ERGON HC EV integrated system and which allow it to manufacture a harmonious bottle with a clean design, that perfectly mirrors the purity of the water that it contains.

Eco-packaging and ecoformats are concepts that have always been a part of Volvic. Recognisable by the green cap, Volvic 0.5 L and 1.5 L bottles were the first in France to be produced with a type of plastics that is 20% of vegetable origin, favouring the use of renewable materials. Furthermore, as large capacity formats use less plastics, Volvic has always tried to promote them and produce ecological formats, like the 8L bottle, bottled by the ECOBLOC® ERGON HC EV recently supplied by SMI.

SMI solutions for Société des Eaux de Volvic SA

To satisfy market request for bottled water, in 100% recycled PET (rPET) containers, the French company invested in the purchase of machinery from the ECOBLOC® ERGON HC EV range, supplied by SMI, the ideal solution to produce, fill and cap square based 8L containers in rPET, with a production capacity of up to 3,200 bottles/hour. The new investment was studied in detail, creating strong teamwork between the experts at Volvic and Danone and the designers at SMI.

The complete production process was designed so that every step of the bottling is kept under constant control; indeed, it is here that the water coming from the deep underground comes into contact with the external environment and is at a greater risk of contamination which would



compromise the sensory, chemical, physical and microbiological properties.

The Société des Eaux de Volvic SA, also, pays particular attention to everything that concerns sustainable development, environmental respect, product quality and purity; for this reason the whole bottling, packaging and distribution process was designed around these values and the machine supplied by SMI was integrated with sophisticate inspection systems, which, starting with the preforms, carry out a long series of checks to maintain the quality and purity of the spring water.

Main advantages of the integrated system:

- compact, flexible solution for stretch-blowing, filling and capping bottles in PET, with the advantage, in terms of reducing production costs, as the system does not need a rinser, nor conveyors between the blower and the filler or accumulation
- isolating system between the "dry" area of the blower and the "wet"

- one of the filler, through a jet of high pressured, sterile air in excess of 5Pa, which guarantees a clean, hygienic filling system
- application of various accessories to guarantee that the filling system is extremely clean and easy to sanitise with advanced cleaning systems
- innovative preform suction system, situated on the oven infeed star, to remove any tiny impurities that could be on the inside of the preform itself. The air that is inserted into the suction system is filtered, and is part of the air recovery system that comes as standard on all the range of SMI stretch-blow moulders.
- machine integrated with sophisticated inspection systems with cameras to guarantee the quality of the bottled water, monitor the production process and avoid particles and/or impurities being deposited on the inside of the unblown preforms
- the preforms are blown with sterile air in a sterile environment; this sterility is maintained for all

- the process of filling and capping
- precise and fast operation, thanks to the electronic, operation control, to motorised stretch rods and the use of high efficiency valves with flowmeters
- reduced energy consumption: the stretchblow module is equipped with a double stage air recovery system, which allows the reduction of energy costs tied to the production of high pressure compressed air
- high energy efficiency, thanks to IR lamps fitted onto the preform heating module
- base of the filler area is made in stainless steel 316 and slightly sloped to ensure that any spilt liquids go down the drains
- electronic capping unit equipped with caporienting system during application, which controls correct positioning of caps, and a rejection system for over turned caps
- cap sterilisation through jets of ionised air on the cap channel
- washable cap accumulation table, in stainless



steel, equipped with an optional system to suction the caps to remove any impurities that might have deposited on them while moving along the hopper

 reduced maintenance and running costs of the machine

The second life of packaging in a circular economy

Designed especially to give families the possibility to enjoy the uniquely, precious, Volvic mineral water, in a way that respects the environment, the new 8L eco-bottle was created in 100% recycled plastic (rPET) and is 100%

recyclable! It is the first totally recyclable container launched on the market, thanks to the use of caps and labels that are also 100% recycled. For Danone the future of plastic bottles in the beverage industry will move towards rPET and therefore it is betting on this material. In fact, the water division of the French multinational is a great user of plastic bottles for its products under the Evian, Volvic, Badoit and Salvetat brands, and it is already thinking about bottling them in rPET made from 100% recycled plastics. The bottle created by the ECOBLOC® ER-

GON HC EV, supplied by SMI, will be the first 100% rPET water container on sale in France, seeing that 8L containers have already captured 10% of brand value sales, and with an important growth of 13,1% in 2018, the success of the new totally, recyclable format is guaranteed. Creating an 8L PET container in 100% rPET is the result of joint work between the specialists at Danone and at SMI.

SMI provided the French technicians with one of their own stretch-blowers, so that they could carry out a series of blowing tests while accurately testing the preforms and bottles; these tests allowed them to regulate the "top load" resistance and the material distribution, a step at a time, developing a specially made preform with a specific shape. The biggest challenge, when using recycled preforms, is to guarantee the constant resistance of the bottle when it is being blown, this operation is very difficult with preforms made from recycled material.



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EXHIBITIO

2021-2022

SIGEP

15-17/03/2021

Fair for bakery, pastry, ice cream, coffee.



ROME

Exhibition on energy efficiency.

mcT COGENERAZIONE

21/09/2021

MILAN

Exhibition for cogeneration.

FACHPACK

28-30/09/2021

NUREMBERG

International packaging trade fair.

MEAT-TECH

22-26/10/2021

MILANO

Fair for the meat and ready meals industry.

HOST

22-26/10/2021

MILANO

Fair for bakery production and for the hospitality.

SAVE

27-28/10/2021

VERONA

Fair for automation, instrumentation, sensors.

mcT ALIMENTARE

28/10/2021

Fair on technology for the food&bev industry.

MECSPE

23-25/11/2021

BOLOGNA

Fair for the manufacturing industry.

SIGEP

22-26/01/2022

RIMINI

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



PROSWEETS

31/01-02/02/2022

COLOGNE

Fair for the sweets and snacks industry.

INTERSICOP

19-22/02/2022

MADRID

Fair for bakery, pastry, ice cream, coffee.

FRUIT LOGISTICA

09-11/02/2022

BERLIN

Fair for fruit and vegetables.

BEER&FOOD ATTRACTION

20-23/04/2022

Rimini

Fair for beers, drinks, food and trends.

COSMOPROF

10-14/03/2022

BOLOGNA

Fair for the cosmetic production chain.

ProWein

27-29/03/2022

DUSSELDORF

International wine & spirits exhibition.



MIDDLE EAST 2021/22

GASTROPAN

21-23/09/2021

ARAD

Fair for the bakery and confectionery industry.

GULFOOD MANUFACTURING

07-09/11/2021

Fair for packaging and plants.

HOSPITALITY **QATAR**

09-11/11/2021

DOHA

Fair of Hospitality and HORECA

PROPAK VIETNAM

10-12/11/2021

SAIGON

Fair for packaging, bakery, pastry.

WOP DUBAL

22-24/11/2021

DUBAI

Fair for for fruits and vegetables.

DJAZAGRO

22-25/11/2021

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Fair for companies of the agro-food sector.

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02-04/12/2021

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Fair for the food&beverage industry.

PACPROCESS FOOD PEX

09-11/12/2021

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Fair for product from packaging.

GULFOOD

13-17/02/2022

DUBAI

Fair for food and hospitality.

IRAN FOOD BEV TEC

07-10/06/2022

TEHRAN

Fair for food, beverage&packaging technology.

PROPAK ASIA

15-18/06/2022

BANGKOK

Fair for packaging, bakery, pastry.

GULFHOST

08-10/11/2022

DUBAI









EXHIBITION

2021-2022-2023

VINITALY

10-13/04/2022

VERONA

International wine & spirits exhibition.

LATINPACK

26-28/04/2022

SANTIAGO CHILE

International packaging trade fair.

ANUGA FOODTEC

26-29/04/2022

COLOGNE

Fair on food and beverage technology.

CIBUS

03-06/05/2022

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Fair of food product.

IPACK-IMA

03-06/05/2022

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Exhibition

for the packaging industry.

MACFRUT

04-06/05/2022

RIMINI

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

SPS/IPC **DRIVES/ITALIA**

24-26/05/2022

PARMA

Fair for industrial automation sector.

HISPACK

24-27/05/2022

BARCELLONA

Technology fair for packaging.

FISPAL

21-24/06/2022

SÃO PAULO

Fair for product from packaging.



30-08/01-09/2022

NUREMBERG

The trade fair for powder processing.



12-16/09/2022

MONACO

Fair for the beverage and liquid food industry.



15-19/10/2022

PARIS

Fair on food products.



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

21-24/11/2022

Exhibition about packaging technology.

INTERPACK

04-10/03/2023

DÜSSELDORF

Fair for packaging, bakery, pastry.

TUTTOFOOD

08-11/05/2023

MILAN

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22-26/10/2023

MONACO

Fair for the bakery and confectionery industry.

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