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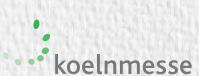
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DRINK TECHNOLOGY MAGAZINE

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



ww.drinktechnologymag.com



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web site: www.editricezeus.com e-mail: redazione@editricezeus.com portal: www.itfoodonline.com e-mail: marketing@itfoodonline.com

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managing editor

Enrico Maffizzoni direzione@editricezeus.com

editorial manager

S.V. Maffizzoni redazione@editricezeus.com

editorial production

Sonia Bennati bennati@editricezeus.com

account dep. manager

Elena Costanzo amministrazione@editricezeus.com

project and layout design

ZEUS Agency grafica@editricezeus.com

creative dep.

ZEUS Agency grafica@editricezeus.com

translations

C. Natalucci translator

printing

ZEUS Agency

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Baldi: from a butcher's shop to a large company with a single goal: customer satisfaction





oday, Baldi is a company that works with four different business divisions in the food sector, ranging from the processing, portioning, and packaging of beef, to the production and marketing of fish and gastronomic products in general, such as jarred and fresh products, cold cuts and much more.

Its history begins far back in 1965, with the butcher shop started in Jesi by Umberto Baldi. We retraced this history with Emiliano Baldi, current CEO of the company.

Today, Baldi is a large company that operates throughout Italy. Its history, however, began with an artisan activity, a butcher shop in Jesi. What influence did this origin have on the subsequent development of the company?

Umberto Baldi founded his first butcher's shop in 1965, but just a few years later he had already set up Baldi Carni S.r.l. and founded, together with other personalities in the sector, the category association that today is the most accredited at a national level: Assocarni.

Although his craftsmanship and his mastery are the starting point of this story, it would not have been so long if these starting points had not been associated from the beginning with skill and vision, together with the ability to understand the changes that the market was undergoing.

It is this ability that has allowed Umberto Baldi to expand its business. Continuous and close listening to the needs of the market, intuition, and method were the drivers that the company followed from the beginning, and continue to follow today.

The treasure of experience accumulated over time is the main asset thanks to which we were able to assume today the status of an important national player.

What are the significant steps in this development?

The first phase characterized the transition from the butcher shop to the wholesale of meat, at first only marketed, then also processed with the creation of a small laboratory of vacuum cuts.

The desire to explore and learn were the main drivers of this transition. In this phase, on the one hand, the aggregation of points of sale in large-scale distribution was growing, with the consequent disappearance of independent butcher shops, and on the other hand, the success of restaurants, which began a process of gradual increase in popularity with the general public that lasted until the advent of Covid-19.

A subsequent phase led to the managerialization of the company: Baldi abandoned



Together with Emiliano Baldi, CEO of Baldi, we revisited the history of a company that, always looking ahead, has crossed four decades of Italian industrial history as a protagonist











its original structure, which was mainly owner-run, and took on a different one, projected towards the future. All these phases were difficult and suffered, but a look back shows that they were also inevitable.

How is the company structured today?

Today Baldi, thanks to its different company divisions, offers quality, innovative solutions, and opportunities for different types of cuisine.

The company has gradually cultivated an increasingly complete vision of the market, in close contact with many different but interconnected profiles.

The diversity of information coming from different channels provides a wide global vision that enriches the company's know-how: from the restaurants to the big company up to the final consumer, each profile provides the company with daily inputs and stimuli, expressing specific needs that together push us towards a double outcome: product quality and service exclusivity.

What are the main values that drive Baldi?

They are three. First and foremost, the customer: Baldi is undoubtedly a customer-centered organization.

We aim first of all at the satisfaction of those who have been choosing and frequenting us for years. Secondly, I would say the product and the service: we structure our relationships around these two poles. Finally, I would mention the horizontal management of our company, built and inhabited by our employees and their families.

Within this system of values, the binding force is respect, a value that we address to the market and that we demand from the market.

I would also like to mention the attention we pay to our territory, selecting and rewarding local producers and operators when the spark of talent shines in them.

How important is technological innovation for a company like Baldi? Have you recently introduced any innovations in this direction?

Innovation is the mainstay on which the whole activity is based: informatics and technology play a very significant role in the management and administrative automation and the control of production processes.

To mention one of the latest innovations, I would like to talk about the collaboration with Tecno Pack S.p.A., one of the most important national players in the study and realization of completely automatic packaging lines.

Thanks to their products, we have been able to completely automatize the packaging process of our frozen hamburgers.

The technology offered by Tecno Pack has allowed us to protect our product from the cold and to increase its shelf-life, without considering the advantages derived from the automation for the realization of various packaging formats.







In recent years, especially before the pandemic emergency spread, there has been much talk about ecology, in particular about plastic and the need to reduce its consumption to limit its environmental impact. This debate has profoundly influenced manufacturing and in particular, the packaging sector, which has been able to adopt new solutions to face new challenges. How do you face the new challenges of ecology?

Choosing a Baldi product also means taking part in a company project that cares about the environment. Our green choices involve both production processes and energy supply. Investments, technologies, and strategic choices always take into account social responsibility.

To mention just a few of the challenges already underway: the introduction of LED lighting; self-production of energy thanks to a photovoltaic system; packaging with an environmental label.

The virus that continues to plague the world has introduced profound changes both in our everyday lives and in the realm of industrial production. What challenges has COVID imposed on your company? How have you dealt with them?

The moment we are facing is dramatic for everyone but the restaurant industry, our industry, has been hit much harder than others.

Our choices have been guided by the desire to protect investments in human capital, the company's true asset. Thus we have employed, and we are continuing to employ, resources aimed at managing the crisis in the best possible way, reducing the inevitable economic and social sacrifices as much as possible. We have compensated with our means for the failings of the institutions.

We are not to blame for this crisis and it is clear that the interventions implemented so far have been ineffective, but despite everything, we will do our part, with the strength of an extraordinary and deeply cohesive team and resources accumulated over more than 50 years of the company's life precisely to be ready for any eventuality.

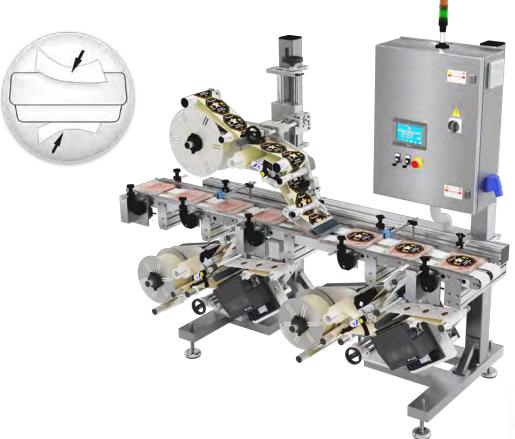






TOP AND BOTTOM LABELLING IN NON-STOP CONFIGURATION

INDUSTRY 4.0 TECHNOLOGY FROM ALTECH





he ALTECH labelling systems of the ALbelt series provide an excellent price/performance ratio, without any compromise concerning reliability and robustness. The ALbelt systems come in numerous configurations based on specific labelling needs and can label different types of products, such as bottles, cans, jars, tubs, boxes, and trays.

The ALbelt systems are fitted with ALstep or ALritma labelling heads and can be equipped with printers to customise labels with variable data, as well as with product spacers, wrapping units for cylindrical products, adapters and bending units for corner labels.

If necessary, the ALbelt systems can take on specific configurations to meet particular needs, such as top and bottom labelling or non-stop configurations. ALTECH has recently supplied a system featuring both capabilities to an important producer of cold cuts in Italy. The system is fitted with two ALritma labelling heads, which are positioned in such a way as to apply a label on the bottom of trays. The operational logic allows it to detect the end of labels on the first head and automatically activate the **second one**, thus making it possible to change labels without stopping the labelling process. A third labelling head on the top is set up to apply a "hook" label to hang the tray on a display rack.

All functions and parameters are managed via a PLC system featuring a 7-inch colour touchscreen panel that can store and manage up to 100 labelling formats. The system can be **interfaced via Ethernet**, which **enables remote access** to monitor its health and status, e.g. for remote assistance. Moreover, the OPC-UA protocol makes the machine compliant with **Industry 4.0** requirements.

ALTECH Srl is a leading Italian company specialised in the production of material coding, identification, and labelling systems.

www.altech.it

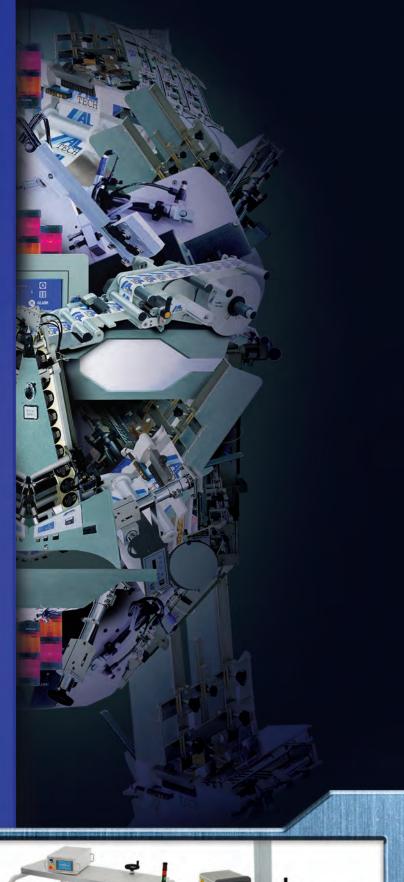




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ULTIMATE FLEXIBILITY FROM INDUSTRY PROVEN TOP-LOADING SECONDARY PACKAGING MACHINES

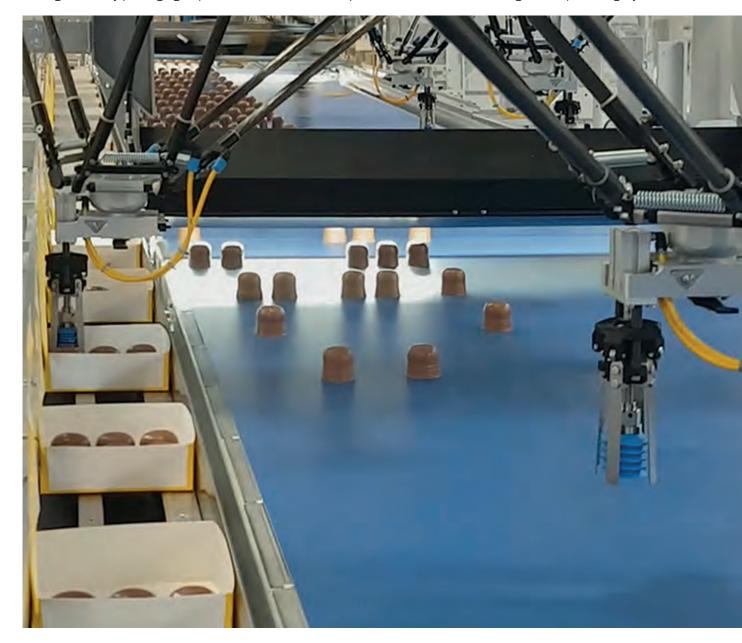
ollowing enhancements to their existing highly digital infrastructure – including improvements to class-leading digital twin and virtualisation solutions – Cama Group's top-loading secondary packaging technology is now even more capable of addressing the high-flexibility packaging require-

ments of a wider selection of industries.

These advances in digitalisation, coupled to Cama's in-house-developed robotic pick-and-place technology and advanced vision systems, mean that end users can maximise the total cost of ownership.

The top-loading range – with its wideranging flexibility and adaptability – is capable of fulfilling packaging routines and processes that would, in the past, have required multiple separate installations.

"The machines have been designed from the ground up with agility and



Fully digital control and packaging-industry-specific robotic technology define best practice in secondary packaging

flexibility in mind," explains Alessandro Rocca, Sales Engineering Director at Cama Group. "Long ago we recognised that market demands and consumer-driven product variation were going to place immense strain on our customers, as they race to adapt to the latest market forces.

"Our Breakthrough Generation underpins our answer to these needs,"





Rocca continues, "with its modular, hygienic and highly customisable design. As technology has evolved, so have our machines' designs, as we leverage contemporary automation technology and advanced mechanical designs. This early decision to go as "digital as possible" has certainly paid off for both us and our customers as we both realise the benefits of a fully interconnected and easily reprogrammable automation infrastructure.

"Clearer data pathways and data exchange have also bolstered our in-house developed robotic solution, which is a unique offering on the market." Rocca adds. "This technology has been developed over a number of years by our in-house packaging technology experts specifically for the packaging industry. This is not an adaptation of typical off-the-shelf technology; this has been developed bespoke to the unique needs of this sector."

In operation, the robot-equipped toploading packaging lines can accept a wide array of in-feed formats, while delivering multiple out-feed options, either in parallel, concurrently or batch-specific.

The modular design of the BTG solutions means that additional modules can be added easily, to increase the robot count, to boost throughput. This flexibility is compounded by changeover routines that often taken a fraction of the time compared to industry

norms. "By using HMI re-programmable servo systems, digital twins/virtualisation and RFID technology, we have significantly reduced changeovers in terms of both time and effort. Users get it right first time, every time in no time at all!" Rocca explains.

Vision systems also play a critical role in the efficiency and flexibility of the packaging cycle. Cameras and vision solutions can be deployed in numerous roles including robot guidance, in-feed and out-feed quality control and traceability. The level of deployment and integration is balanced in relation to customer demands and the level of sophistication, capability and data capture required.

According to Massimo Monguzzi, R&D Manager, at Cama: "Our inhouse robotic solution has been fine tuned over the years to work in perfect harmony with vision systems; and this tight integration is illustrated by the pick speeds and accuracies we can achieve. In addition to robotic guidance, quality control is another major beneficiary of the contemporary vision solutions we deploy.

"Product appearance is everything," he exclaims, "either in its naked state or when presented in shelf-ready packaging, which is why we offer solutions on both the infeed and outfeed of our machines.

On the infeed we can identify nonconforming products, while on the outfeed we can spot package dam-



age and incomplete closures and – in applications where weighing solutions are not feasible – incorrect product counts too."

Alessandro Rocca explains why quality should never be considered as a fixed off-the-shelf concept: "Quality control is a per-application ethos that we develop with the customer. It's not a fixed concept, it has to be designed and fine-tuned to the product and the application.

The definition on each machine and the level to which it is measured is determined by what the customer wants.

We always develop our on-machine QC solutions in co-operation with our

customers. They know their products better than we do; it is essential that we really listen and take their needs on board. With one customer we spent in excess of six weeks just discussing and developing the QC system.... It really was that important to them!"

Tightly integrated vision systems are also an essential facet of any traceability system, such as those deployed in the pharmaceutical sector. "Traceability practices demand the reading of codes, text strings and other OCR routines," Monguzzi explains. "In addition to accurately identifying and reading the individual product codes you need a means to apply

code to secondary packaging either using a printer + label or a print direct to package. Then, once applied, the efficacy of the print needs to be confirmed (legibility and orientation) before passing the data to robust storage and dissemination systems capable of liaising with MIS and enterprise systems.

Unlike other machine builders that rely heavily on third parties, this is all managed by us internally.

We have partners, but we also have the knowledge and competence in house to design, manage and install these systems, giving our customers a single point of contact.



"We can offer this technology across all categories and markets," explains Rocca. "The technology is not tied to a specific sector. One area that is really evolving in term of vision deployment is naked products i.e., unwrapped individual confectionary, frozen or baked goods.

These must be examined on the infeed to ensure accurate pass/fail criteria are met, so that the customer is not disappointed with the product when they open our carefully applied secondary packaging."

"We can also scale vision system solutions, from simple cameras up to complex multi-faceted PC-based approach," Monguzzi adds. "We have used 3D scanner systems in the past and the further deployment of this technology is a major element of our future roadmap and will add a new dimension to our customer's QC capabilities, especially for uneven, non-uniform naked products."

"Our experience of vision technology is very wide in terms of sectors and it is a vital part of our contemporary-technology offering," Rocca adds, "which also includes easy & toolless changeovers, RFID coded components and immersive digital capabilities all underpinned by an Industry 4.0 framework.

This digital approach also fosters

far greater modularity. You can have one, two, three or even 20 robots... it all depends on the speed you need based on your infeeds or the throughput you require for your outfeeds. 100 to 2,000 products per minute... it really is up to you.

And you don't have to decide now! Our modular approach means our machines can be upgraded, extended and enhanced much later in their life to match your market's demands." From initial design, through simulation and testing and onto optimum in-field operation, Cama Group's toploading machines and all of their associated technology will deliver better, faster, more focussed packaging solutions that enable end users to increase throughput, boost quality, shorten times to market, slash downtime and quickly and easily undertake format changes.

End users should never settle for second best or opt for solutions that just 'nearly do' what they want!

Cama Group has created packaging solutions that can precisely match a customer's brief and deliver all the requested features, using technology- and knowhow-transfer from the other markets Cama so successfully serves.

www.camagroup.com

Univision for Cama, together to ensure the customer's product quality in their confectionery Flexline tea cake application

Univision is one of the automatic inspection technology leaders in the European market. With more than 30 years of history, Univision provides state of the art solutions, supporting its customers and their production, worldwide



PIERREBI:

END OF LINE PACKAGING AND MUCH MORE

ierreBi announces to have completed the development of new products that widen and integrate the range of packaging machines proposed, acting as a high-level supplier with interesting and customized solutions for the most demanding customers.

The entire historical range of end of line packaging machines, which have made PierreBi very successful, including bundling/over wrapping, side-top loading and tray packing machines, has been updated and upgraded in line with modern technological requirements.

The peculiarity of PierreBi's offer is represented by machines that provide high performances with an extremely small footprint, which is still a highly appreciated and requested feature by customers.

The new range of secondary packaging machines includes: the horizontal intermittent and continuous cartoner, the horizontal case packer for medium and large formats, the special vertical case packer for large formats with a very reduced footprint and the wraparound machine suitable for various packaging combinations such as fully wrapped carton, tray only and tray + lid.

All the secondary packaging machines can be combined with the palletizer of modern conception



recently redesigned and updated in the technical contents.

Thanks to the activity of a specialized team of technicians, with a long experience and expertise knowhow, PierreBi has realized many lines all over the world and is now ready to support the new market challenges with versatile and personalized solutions, that can be set up from the single machine

to the complete line; a particular attention is paid to the feeding systems of the machines tailored to the product, that more and more frequently become the real heart of the line.

The PierreBi railway continues to run, it will be a pleasure to have you on board and share the journey with you.

www.pierrebi.it



Top loading case packer







phone +39 0542 0673<u>76</u> pierrebi@pierrebi.it - www.pierrebi.it



DUETTI PACKAGING INNOVATION FIRST AND FOREMOST

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

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

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

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

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

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

Duetti Packaging has many years of experience, above all in the beverage, canning and glass industries, especially meat and fish sauces, pickled vegetables, fruit juices, soft drinks, water, etc.

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

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





Robotic layer depalletisation of jars







www.duettipackaging.com











Wrap-around of honey jars



Multiple wrapping of cans containing milk powder

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-

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.

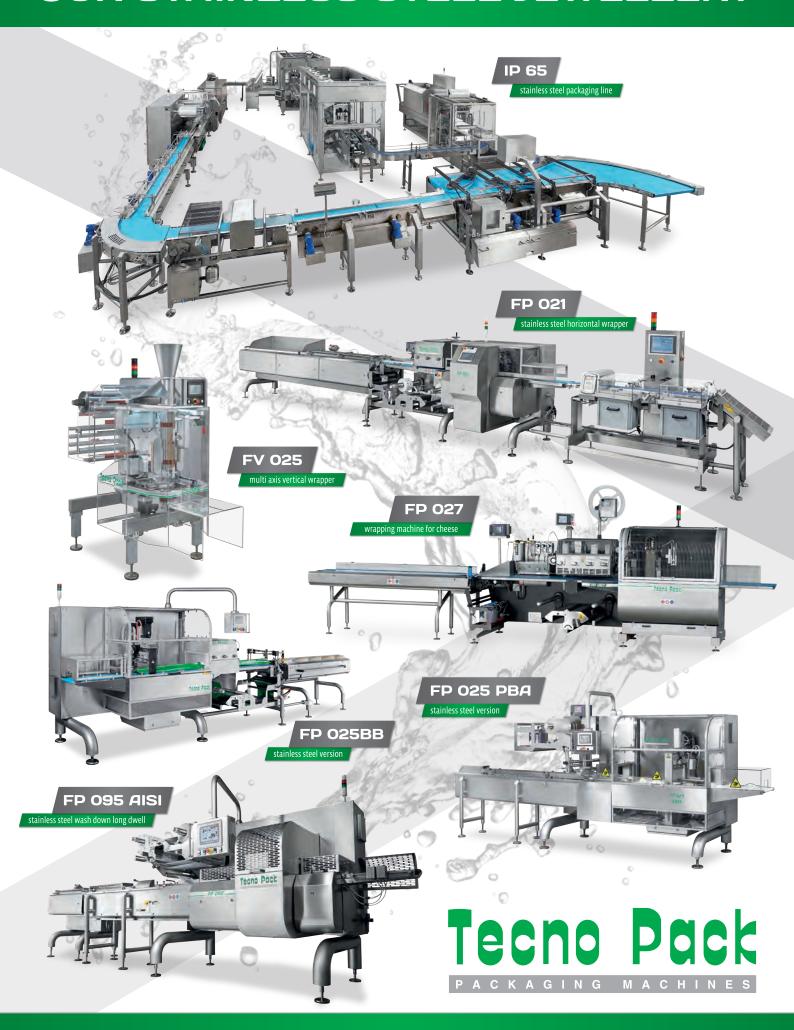
To guarantee the quality of production and services, Duetti Packaging with Industry 4.0 standard and is ISO 9001 certified.

www.duettipackaging.com





OUR STAINLESS STEEL JEWELLERY



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

MEETS TECNO PACK'S TECHNOLOGY

archio'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.











It is more than 6,000 square meters divided into three plants with nine production lines in total and departments working only on glutenfree 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.





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

he 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



Tailor made machines for food industry YOUR PRODUCT IS OUR UNIT OF MEASURE



GEO PROJECT INDUSTRIES S.R.L.

Via Leonardo da Vinci, 43 - 35015 Galliera Veneta (PD) ITALIA Tel. +39 049 9475211 sales@gpindustries.eu











All in One Unit for chips bags



Cartoning of sachets containing coffe pods

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

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/













Your single dose packaging solution, since 1965

Stick-pack and sachet technology













TURNING PROBLEMS INTO OPPORTUNITIES



trong of values that have always identified it Universal Pack has tried to turn these new problems into chances for growth. Here is how it was.

How did you face the problem of distance with customers consid-

ering the important export share (almost 90 %) of your business?

We have always been a pioneering company in terms of technology and digitalization.

The pandemic has represented the chance to boost further and make all those less adopted procedures

standard: with this we mainly refer to remote FAT protocols, remote machinery installation and technical training.

We did not have to create new channels or provide new technology, but to expand the existing tools and proce-



2020 has undoubtedly been a special year, bringing unprecedented challenges. The restrictions on travels, meetings and daily activities has impacted to a large extent every industry.

dures that were used in case of impossibility of meeting our customers at first hand.

We offer assistance packages with augmented reality and e-commerce for purchasing spare parts.

We also provide monitoring plant per-

formance by means of 4.0 and subsequent optimization of the productivity through proprietary algorithms as for machine learning and predictive maintenance.

We are in a very complex field, technically speaking, how is it

possible to manage communication with customers effectively in this time?

The communication with customers is the most important part of the whole process: the final solution effectiveness and completion time depend on the quality of it.

We are equipped with specific tools for each phase of the negotiation and after sales. For instance, design reviews take place remotely on a "twin" machine of the one that the customer will receive.

Moreover, we boast a factory laboratory (built in over 30 years of investments) for scientific analysis of products and film laminates.

There are also some stock machines, a white room for simulating specific environmental conditions and equipment for testing and simulating the conditions at the customers' premises. Besides that, we produce more than 80% of machine components in-house.

Over the years we have been able to develop a very efficient ecosystem in terms of flexibility and responsiveness.

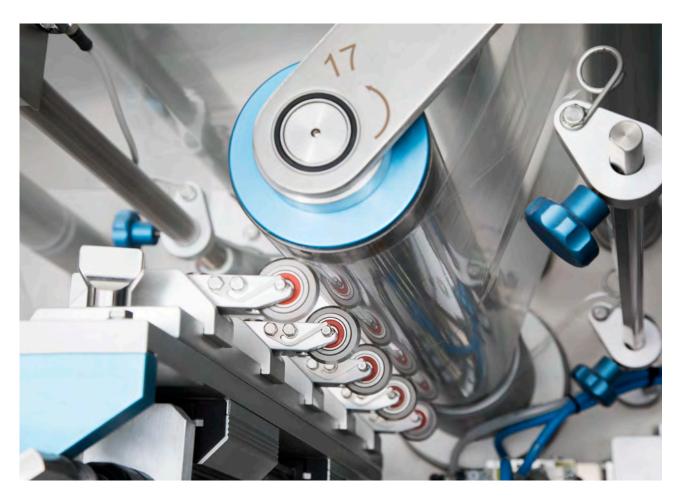
Has the market changed this year?

There have been some changes on the market: this year requests have increased on products such as hand sanitizer, swabs, food single dose products like grated cheese and olive oil. The rise was due to the new global hygienic standards.

However, the level of requests is generally aligned with the latest years







trend. Notwithstanding the peculiarities of 2020, we have kept up with the financial report forecast, confirming the annual growth in terms of turnover, new customers and number of workers.

With regard to sustainability, do you think that this year has been positive?

Absolutely. Besides the pandemic issue (that indirectly brought benefits

to the environment in term of emissions) we have made great progress in terms of machines carbon footprint reduction and packaging with recycled and recyclable film laminates, thanks to collaboration with suppliers and research institutes.

The company

Universal Pack is an international reference in the field of packaging. The company has over 50 years of

experience in designing and building vertical machines and complete automatic lines for packaging single dose products for the food, pharma, chemical and cosmetic industry.

It is present in over 150 countries and has installed more than 8000 systems. It offers cutting-edge solutions for any type of package: stick-packs, sachets sealed on all four sides, shaped packs and cartons.

Currently, the main targets for innovation focus on packaging with recycled and/or recyclable materials, integration of machines in 4.0 environments, energy consumption optimization and environmental sustainability.











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PAN AMERICAN PACKAGING: CUSTOM MADE EXCELLENCE

High-performance stretch films for all industries



he 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 cuttingedge 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.



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.







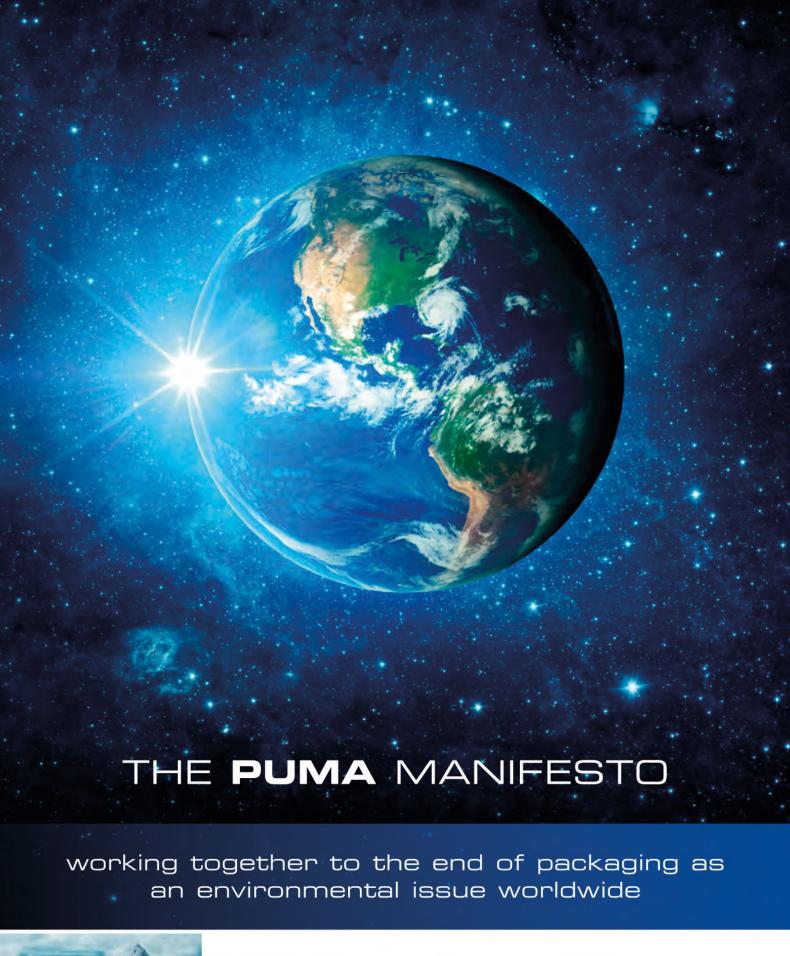
The activity of PAN AMERICAN PACK-AGING is characterized and animated by the constant research of more and more advanced technological solutions and products. It is also char-

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











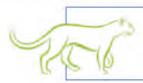
THE **PUMA** MANIFESTO

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

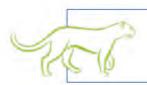


WHAT IS NVC?

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

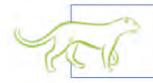


WHY DO WE HAVE TO ACT NOW?

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

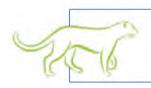
Environmental issues may come and go, depending on the many different interactions between our human activity and planet earth. Whereas the PUMA model remains unchanged, its application to environmental issues may vary in the course of time. In this first edition of the PUMA Manifesto we focus on litter, CO_2 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.



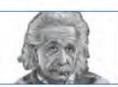
	FE	P-U-E	C-C	BE
Litter			1	
CO ₂	/			1
Product Packaging material + Total environmental impact				
Future issues	1	1	1	1

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 faciliate 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



Sharing the future in packaging

C+31-(0)182-512411

info@nvc.nl

 info@nvc.nl



STEEL FOR PACKAGING, CANNED FOODS, RAW MATERIAL FOR THE FOOD INDUSTRY SINCE EVER







ased in Lugano (Switzerland), Seal of Quality is a trading and consultancy company worldwide recognised as a top marketing and sourcing advisor in the fields of packaging and food. The company employs a young team of some 30 professionals people across Switzerland, Italy and Spain. It is also proud of a 50 years experience in the tinplate and food business.

Within the metal packaging business, Seal of Quality has strong relationships with tinplate and flat carbon steel producers in Europe, Asia, North and Latin America. They provide steel for a wide range of products; from food and aerosols to general line and speciality cans, as well as for easy open ends, twist off closures, crown caps.

In addition to its tinplate activity, Seal of Quality is a leading player in the international trade of food raw materials, with a particular specialisation in dry pulses. The company



Seal of Quality

holds an import/export network that connects raw material producers and canneries across Asia, Europe and America.

The company is also involved in the design and implementation of export strategies for over 30 different canneries in Italy and Spain. Through its key relationships with the world's leading retailers, Seal of Quality offers an effective sales network for all sort of metal packaging related finished goods, such as canned tomatoes, beans, vegetables and fruits.

"We are very pleased to join INTER-PACK, a forward-looking exhibition which is actively contributing in promoting the many advantages of metal packaging.

Our aim is creating value across the global supply chain for the food industry" said Davide Padovani, Seal of Quality's Managing Director.

www.sealquality.com





PACKAGING MACHINES FOR MASKS







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info@gsp.it - www.gsp.it fax +39 0445 576 286



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

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

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

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

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

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

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









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THE SHRINK PACKAGING REVOLUTION IS HERE!





TWIN ROBOT

robot for high-speed wrapping of flow pack packages in shrinkable film



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extends shelf life, balances portion control and is recyclable.

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

It eradicates the need to include a metallised layer while retaining crispness and avoiding grease leakage. Thomas Kahl, Mondi EcoSolutions Project Manager, said: "Our aim is to work closely with our valued partners through our customer-centric approach, EcoSolutions, in order to create sustainable packaging that works for the products, the customer and the environment.

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

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

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

Visit: www.mondigroup.com

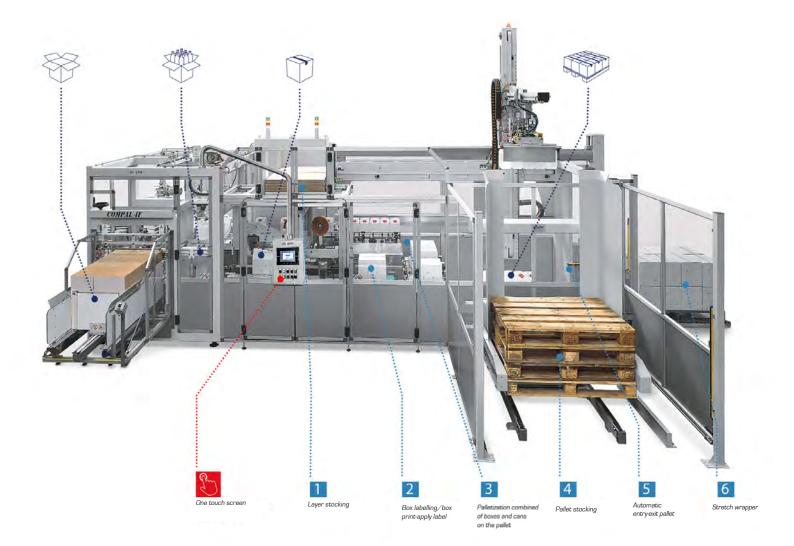








COMPAL is the NEW CONCEPT IN THE PACKAGING INDUSTRY and in 5,6 meters integrates 4 phases in 1 automatic solution





Reduction of maintenance



Optimization of the productive



Ergonomic design



Quick changeover



5,6 meters



High visibility of the production process



For all market sectors



Eco-friendly



Flexibility and operativity



Energy-saving



Management by one touch screen

SANDWICH PACKAGING: THE SOLUTION FOR THREE-SIDED LABELLING IN A SINGLE APPLICATION



he challenge: to label triangular sandwich packaging efficiently and quickly

A special shape, that of sandwiches, is the subject of a special project that has enabled Etipack to satisfy the need of a company, producing the well-known triangular snacks, to effectively label a product with packaging that is anything but standard. The application of labels on the top and bottom of the packaging is quite usual for the food sector. So what makes this process special? Precisely the shape of the packaging which, for ease of reading, requires the label to be applied not only on two sides, but also on the third side with the familiar slanted shape, all in a single application.

The Etipack proposal: customized labelling machine thanks to modular design

In order to achieve the required result, Etipack has applied its **distinctive design methodology: starting from a consolidated standard to develop the customization requested by the customer**.

The project has integrated **System 4**, a model of the Etipack range of devices, specifically designed for the **application of double-sided labels**, which, thanks to its modular design, allows the integration of applicators and devices to configure a machine tailored to the customer's needs.

This system, which combines automatic labelling machines with an in-

tegrated product conveying system, is conceived as a small, self-sufficient labelling line that handles and labels the product, either off-line or connected to other packaging machines such as filling and thermoforming machines.







The special feature of System 4 is its double-belt conveyor, which allows the product to be hooked so that the bottom part is exposed downwards and the pack is accessible from both sides.

In order to carry out the labelling, the system integrates two Energy 100 labelling machines, positioned above and below the belt, which allow both the lower and upper labels to be applied simultaneously as the product runs through.

3-sided labelling and variable data entry

In order to achieve in the same application even the labelling on the oblique side, Etipack worked on the customization of the labelling machine located at the bottom. In order to allow both sides of the pack to be involved in the same application, **System 4 has been customized**

by integrating an Energy 100 labeller programmed to carry out a "seal" application.

Together with the creation, by the client, of a layout that would allow

the necessary information to be contained on a single label, it was thus possible to achieve the required result: labelling on both the underside and the oblique side in a single application.

The labeller is equipped with a diffuse start photocell that is specifically designed for labelling transparent products.

A Datamax A-4408 thermal transfer printing unit has also been integrated for overprinting variable text and/or barcodes on the labels.

The system as designed presents:

 Flexibility - thanks to a labelling machine that can handle different product formats, labels and application types.

- Compact dimensions openfree carpentry, allows to obtain in only one meter the function of top and bottom labelling
- **Ease of use** with intuitive touch screen operator panel
- **Integration** with ERP and line data, also in Industry 4.0 perspective
- Robustness through the use of rugged materials and industrial design

Etipack offers a range of more than 100 solutions to meet the multiple requirements of the food industry, learn more on etipack.it/en/sector/food/





FLEXICAP DYNAMIC EXCELLENCE

FLEXICAP is an innovative assembling machine designed for coffee, soluble products, and liquids.

t is available in different models from a minimum of two lanes performing up to 120 capsules a minute to a maximum of eight lanes up to 450 capsules a minute according to the format and to the product to fill.

FLEXICAP boasts flexibility, dynamicity and the complete production efficiency.

The modularity of all the system makes quick and simple all the prod-

uct change over and all the operations fully accessible for the inspection.

One year after the presentation of the project at the exhibition HOST held in Milan, our R&D office continuously focused on the design studio and on the realization of many improvements on this project, both from an aesthetic and from a performance perspective.

The new FLEXICAP guarantees the maximum flexibility of the whole sys-

tem; from the feeding of the capsules by sorter or by storage for stacked capsules and available both in the New long-autonomy -supply version.

The loading and downloading of capsules is through Pick & Place system.

The inner capsules cleaning system before the filling and of the edge of the capsule after the filling is done by sterile micro-filtered air and the suction of the residual powders; this process allows a perfect sealing of





the edge of the capsule guaranteeing the sealing over the time and the closing of the top lid.

The filling and sealing stations are user-friendly and they include the maintenance and the cleaning. The machine is equipped for the installation of a laminar flow that ensure a 100% hygienic product.

All the machine is designed to work with more formats both for powders or coffee and liquid products and thanks to the use of pucks to transfer the capsules and the filling stations, filter insertion (if required) cut and seal top lid and "docking station" model.

This version is easy to dismount and performs an excellent cleaning. Furthermore, the change over is fast and it is carried out within minimum limits of time and with no tools.

The handling of the stations is made by brushless motors and allows accuracy and flexibility as well as the quality of the operations to be carried out; both the adjustments and the configurations of the parameters are carried out from the 15" "touch screen" control panel with the possibility to save the production data. The machine is prepared for the integration into industry 4.0.

FLEXICAP is equipped with controls for the correct execution of all the operations and for the installation of verification camera.

All the contact parts with the product are made of 316 L. stainless steel and FDA approved.

The uncoupling and descent system for the cleaning of the grinding system or upper feeding hopper (coffee or soluble products) or other devices placed over the upper part of the FLEXICAP: it allows the maximum security of the operators and maintainers.

It is possible to connect directly the filling stations to the production installation of the product, in order to guarantee the maximum hygiene of production with no stops of the machine.

Thanks to the long experience in the designing and construction of the machines, we can customize and satisfy every single enquiry aimed at satisfy any customer need.

www.omastecnosistemi.it







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



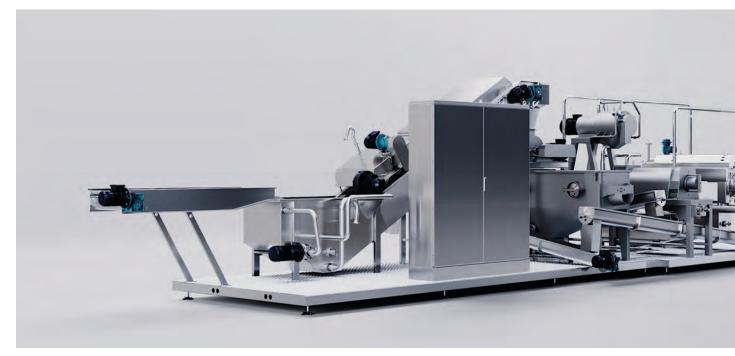
Food Processing Plants



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TROPICAL FOOD MACHINERY, FRUIT PROCESSING MACHINERY



ith decades of field experience on its back, the Italy-headquartered Tropical Food Machinery is a leading company in the global field of fruit processing machinery. Founded in the late 1970s by a pioneering Italian entrepreneur, 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 in India, Costa Rica, and across the Asia-Pacific and West Africa regions.

As the fruit market is set to account for nearly 5 percent of world GDP by 2030, with much of this remarkable growth taking place in the emerging markets of Middle East, Asia and Africa, the company is looking to further shore up its international operation with the aim to be closer to its customers. "Rising demand for fruit worldwide represents an unparal-

leled opportunity to spur innovation, employment and prosperity," said Stefano Concari, the company's general director.

Tropical Food Machinery's corporate philosophy revolves around the notions of flexibility and versatility. The company always seeks to identify the most appropriate solution in any particular case as it is well cognizant that customers' needs depend on a wide range of factors, such as geography, ready access to market and a working supply chain. This allows the company to meet the needs of a wide range of clients, from family-owned businesses to large-scale industrial producers.

Thanks to its decades-long know-how accrued on the field, Tropical Food Machinery is able to offer a wide range of multi-purpose technological solutions, starting from very low capacity systems such as small-size plants on skid or mobile plants to

large-scale, automated plants for the industrial process of tropical, deciduous fruit and tomato.

Every line is designed in-house and then built and tested before every and each delivery, enabling a com-



plete control over quality and productive speed and creating a strong sense of responsibility within the company's workforce.

Some of the jewels of this range that have enjoyed particular success recently are the Mini Industry Line 200



and the Multifruit Line 1000. Mini Industry Line 200 arose from discussions with international organizations and was designed to be used by small-scale producers and farmers in decentralized areas. With this line,

farmers can process themselves any fruit and produce "ready-to-drink" fruit juice, jam, fruit salad and tomato paste packed in glass, pet or tins and sell this production on the retail market.

Mini Industry Line 200 is approximately 12-meter-long and has a very low energy consumption. The system supplied already assembled in one single container, preventing bothering assembling issues.

Mini Industry Line 200 can be therefore moved from location to another if the season requires so, allowing producers to refine seasonal fruits directly on site, avoiding extra transport problems and related problems. A further upside is that its high manufacturing quality and standards allow the use of non-specialized personnel.

Multifruit Line 1000 is designed for the same use in remote areas and highly flexible situations.

The system is the smallest of the company's fully automatic lines. It has a working capacity up to 1 tons/h **www.tropicalfood.net**

of any fruit and can produce aseptic natural juice/purée and concentrate as well.

The aseptic pulp or juice is a semi-finished product which is filled in 220 L bag in drum, it is very long-lasting even when stored at room temperature and is then supplied to blending - juicing - baby food companies and even to the HORECA chain.

This line is particularly recommended for those entrepreneurs who are not regularly supplied with big quantity of fruits.

Given its already deep-rooted presence in most of the largest markets, Tropical Food Machinery boasts also a comprehensive after-sales support service that is able to provide spare parts and a prompt technical support if the need should arise.

As Concari put it: "This is what drives our company: relentlessly working with our customers to improve our technologies and offer even higher yields and more efficient production." 🏛







GEA HIGH PRESSURE HOMOGENIZATION TECHNOLOGY IN FOOD & BEVERAGE APPLICATIONS

EA is the technological leader for dynamic high pressure homogenizers and plungers pump, suitable for all industries and applications. This is the result of specific know-how and a spirit of innovation that is constantly focused on innovation and high standard process performances.

How homogenization enriches food products?

The benefit of high pressure homogenization is well known in dairy, food & beverage industries for subdividing particles or droplets present in fluids, and reduce them to the smallest possible size, down to nanometer range.

Enhanced stability, shelf life, viscosity, color and taste are the essential characteristics that the emulsion gains through this process. Homogenization contribute in increasing digestibleness and, as consequence, facilitating assimilation of the nutritional principles as well.

The use of high dynamic pressure and homogenizing valves specifically designed by GEA experts for different applications, allow to subdivided particles at the required size and efficiently mix ingredients at the lowest possible pressure, ensuring energy and cost savings.

What makes GEA your ideal partner?

The most important key of success consists in the close collaboration with customers. The connection of common efforts 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. The latest set-up and continuous improvements on production technologies allow the company to offer a complete range of homogenizers, from laboratory up to the industrial scale.

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

All GEA homogenizers are designed CIP and SIP, they are available with cGMP documentation and approved FDA and 3-A certification; GEA is also able to support clients for the IQ/OQ qualifications and product test (FAT-SAT).

Ariete Series. The state-of-theart technology for power, reliability and flexibility.

These machines are easily implementable in remote controlled systems and complete process lines. GEA homogenizers are available in different configurations, conceived with specific liquid end design that allows to reach up to 1500 bar with premium homogenization performances warranty.

Main advantages:

Easy to use

- Highest reliability on continuous production (24/7)
- Reduced operational costs (water, lubrication oil, energy)
- Low environmental impact
- High capacity at ultra-high pressure

One Series.

The combination of convenience and quality to deliver unmatched benefits. These 3-piston homogenizers are simple and versatile machines manufactured to ensure easy maintenance and simple installation. Available in five versions, the series can meet any production need (from 300 l/h up to 10.000 l/h - 250 bar). Main advantages:

- Ready-to-use
- Ideal for small-medium dairy & beverage industries
- High versatility and smart installation
- Long lasting core components

- Reduced maintenance cost
- · Safe sanitary design

Find the perfect homogenizer for your 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.

The quality and the reliability of GEA homogenizers are well known all around the world, find out all the information on the website **www.**

gea.com/homogenizers 🏛







Boost up the taste of nature

Discover GEA homogenizers. The highly customized process solutions that ensure excellence in food products.

- · Improved organoleptic properties
- · Longer shelf-life
- Reduced use of addivites or stabilizers
- · Reduced oxidation and alteration processes
- Improved viscosity, mouth feeling and taste
- Aseptic execution available



TECNOCEAM 2021:

WITH YOU IN THE FIELD OF MPV (Minimally Processed Vegetables) TO CONTINUE TO GROW

2020 **l** he vear saw TECNOCEAM, from its headquarters in Collecchio Italy), (PARMA, remain guaranteeing its partners reliable, timely and continuous support. Since 1979, the Company, always attentive to seize consumer trends and to identify and meet market needs early, has participated in significant developments in the consumer sector, adapting challenges from different fronts. It has always managed to face them successfully by developing alternatives and increasing its efficiency.

Having been using the software connection and the 4.0 interface for some time, we can constantly monitor the operation of our machinery, regardless of logistical distances, thus being able to promptly solve any hitch, find solutions to unblock production stops and prevent system failures.

Flexibility and proactive attitude are our constant.

With these proven strengths and an increased team spirit, in 2021 we are ready to continue growing together our historic international Customers, who continue to choose us to innovate, and new enterprising and courageous Companies, which need to invest in a reliable partner to do better and more, and therefore turn to us for our know-how and expertise. We are all convinced that, despite the pandemic, consumer needs and the evolutionary trend of food technology will continue to tend towards minimally processed fresh vegetable food products with



incisive service performance, ready and simple to eat. Foreseeably, the focus will tighten on the guarantee of food safety of these "lightly-processed" products and the greater preservation of their natural contents according to even more rigorous quality standards. At the same time, the reduction of energy costs and the urgent need to make production processes increasingly respectful of the environment will be primary.

Our short-term goal is to make available to our Customers various innovations and upgrades in the field of **hygienic design, sustainability** and the development of **new tools for service**. With our skills, your inputs and precious collaboration we are ready to modernize the field of MPV together and give it new life.

WE BELIEVE IN IT AND TOGETHER WE WILL SUCCEED!



www.tecnoceam.com

PROCESSES

Processing of ready-to-eat fresh fruit and vegetables (MPV – Minimally Processed Vegetables): ready salads, washed/peeled/cut vegetables and fruit, fresh fruit juices (smoothies).

Processing of fruit and vegetables for freezing: cooked/arilled vegetables, washed/cut fruit.

Processing and filling of fruit and vegetables for long-term storage: tomato based sauces, pesto sauces such as Pesto alla Genovese, creams, patés, pickles, fruit in syrup, fruit purees, jam and marmalade, fruit juices, etc.

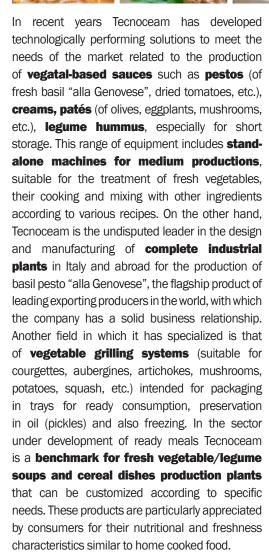
Preparation of fresh ready meals with short shelf-life: soups, pasta dishes, cooked/grilled vegetables, etc.











Thanks to its flexibility and absolute reliability Tecnoceam can be your strategic partner, too! $\widehat{\mathbf{m}}$



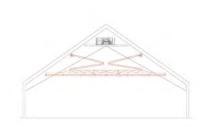


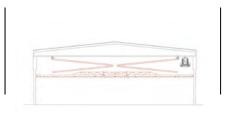




BORGHI SRL: CEREAL STOCKING AND TRANSFORMATION PLANTS











ne of man's dreams is immortality, a concept bound indissolubly being healthy, which implies eating healthy.

In view of the fact that a large quantity of products, composing our daily diet, derives from cereals transformation (wheat, corn, barley, etc.), it follows that modern politics considers them as strategic products, as well as fundamental resources for a country's economy, so their conservation is a social target, as well as agri-food. Storing a cereal for longer or shorter periods, in a rational and safe manner with the minimum cost of operation, is the task of a silo.

In order to choose the type of a silos to be adopted, many factors are involved, such as annual passing number, storage capacity, conveying capacity, conditioning and non-conditioning systems, possible treatments and other factors.

In any case, the work cycles in a silos must be rapid, having the possibility to collect and to return the product at the same time, where the man must only check.

The silo capacity is a too subjective factor to allow practical suggestions, it depends on the purpose of the plant and the local market conditions as well as on economic-financial calculations.

However, we could state, in the first analysis, that a silos plant with:

a.many cells, of modest capacity and with different grains, is used to make quality.

b.few cells with large individual capacities and few varieties of cereal, serves for convenience exploiting the market prices for supplying goods speculating on the cost (e.g. cereal purchase and storage during the harvesting period)

The silos are divided into two above mentioned large categories:

Vertical silos

Normally circular, polygonal, with hopper and/or flat bottom.

They can be made of metal, where they can reach a diameter up to 30-35 m, with capacity up to 15.000 tons/each one or in concrete, generally with a diameter from 6 to 8 m with inter-bins and heights of 60-70 m (e.g. port silos).

However, we will deal with this type of silos in a special section.

Horizontal silos

Consisting of flat warehouses, today they represent the most economical system (ratio between cost and stored tons) for cereal storage and conservation (energy and labor necessary for the plant optimal functioning). Generally made of metal or reinforced concrete and/or pre-

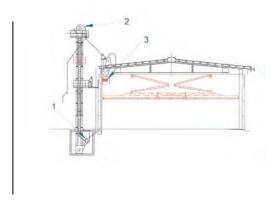
fabricated with variable dimensions: width 20-30m up to 50m and length over 100-150 m with storage height (side wall) ranging from 6 to 11 m, where the unit capacity is generally over 10.000 tons (finding in this situation an economic reason for the choice).

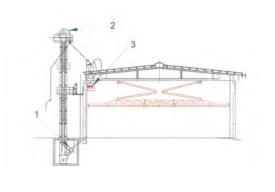
This type of silo is widespread in Brazil and Australia where, in the latter, it covers more than 10% of national storage with warehouses reaching up to 60.000 tons (133 m length, 54 m width, with 11 m average height storage).

The types of horizontal warehouses that we can meet are many, where the best known are the following: As already above-mentioned, the horizontal silos (warehouses) can be made with reinforced concrete walls directly cast in place or with lateral pillars supporting the lateral curtain wall made of reinforced concrete slabs (prefabricated). The flat warehouses can also be made with metal side walls where normally their walls are realized bending (Ω -shaped) steel slabs directly bolted to pillars, always in steel, placed at a constant pitch (from 3 to 5 m) on the warehouse perimeter.

The covering can be realized by means of prestressed concrete trusses or in metal where for impor-







tant lights (over 30m) it is an obligatory choice. The theory used to calculate the pushing on the walls (a fundamental element for calculation and design) is the one best known as "land pushing".

In the past the use of flat warehouses for the cereal storages aroused some perplexity due to the difficulties that could be encountered in the management of the stored grain, such as:

- 1) difficulty in ensiling uniformly and constantly
- 2) difficulty in intervening in case of non-conditioning
- difficulty of cereal return in compliance with health and hygiene rules
- 4) difficulty of cereal conditioning
- 5) difficulty in stocked mass temperature and humidity monitoring.

The new technologies and financial market trend (banks finance more willingly a flat warehouse than a vertical metal silos) represent an excellent alternative to storage in vertical silos. Take into account the company's type of activity choosing the unit capacity or the type of silo to be adopted, horizontal or vertical.

DESCRIPTION OF A FLAT WARE-HOUSE MECHANIZATION TYPE

A chain conveyor (1) is mounted in one side of the warehouse (normally the longest) for cereal loading and unloading destined to the warehouse storage, in fact: the conveyor is mounted on the bottom of a reception pit regularly covered by a self-supporting truckway grating along the entire length of the conveyor or only where it is strictly necessary (e.g. near the point of unloading of the vehicles and/or in other points, where it is deemed necessary, depending on the activity to be carried out).

The uncovered part is normally closed with reinforced concrete slabs or steel of suitable shape and thickness. The vehicle will discharge the cereal inside this pit which, through the chain conveyor (1), will convey the cereal into the elevator (2).

The elevator will raise the cereal and load the warehouse loading belt (3). The belt conveyor (3) will be equipped with a tripper (4) with a motorized advancement, able to discharge the cereal inside the warehouse on time. The warehouse loading and unloading robot is positioned at the tripper discharging. This robot is substantially able to run along the whole length of the warehouse and it can rising and lowering for the whole height of the flat warehouse.

A screw conveyor system is installed on the lower part of the robot to move the cereal from side to side of the warehouse.

As it is easily understandable, once the cereal is discharged from the tripper and it touches the robot wormthreads, the same is pushed on the opposite side. When the cereal reaches the opposite side, a special rocker system will indicate that the cereal has reached the desired position, so it will drive the tripper to move in a predetermined measure; consequently the loading robot will move and repeat the same cycle up to the total filling of the warehouse.

Some shutters (5) incorporated into the wall, which obviously can be manual or motorized, are installed on the side where the reception pit is located, so the chain conveyor (3). The robot will be placed at the point where you want to unload the warehouse and the correspondent discharging shutter will open.

It follows that before the cereal will fall down by gravity, after by means of robot and then it will be pushed towards the discharging shutter.

In this way the cereal will reach the discharging conveyor which, in turn, will convey the product to the elevator (2) placed generally at the head of the warehouse, under which a valve is able to carry out the following operations:

- return
- recirculation
- another operation (e.g. cleaning)

As shown in the operation description, the loading and unloading robot is the main performing element of mechanization. $\widehat{\mathbf{m}}$

www.borghigroup.it



NICOFRUITPAST, PRESENT AND FUTURE

ICOFRUIT is registered trademark, owned and distributed by Frutthera Growers, an Italian company located in a town called Metapontino, in the Basilicata region, in the south of the Country. This area is well known and is ideally suited to the growing of strawberries, grapes, kiwi and citrus. These fruits find their natural habitat here and are included in the most representative made-in-Italy productions.

Adopting the integrated production quality system means employing environmentally friendly production methods, protecting the health of both workers and consumers, making use of technical and economic features of the most modern production systems.

Special care to the environmental issues led the company to achieve an important result: the drastic reduction of pesticides, implementing specific natural technics and recurring to a massive use of antagonistic insects. Natural protection of the plants gave a large contribution to get a "zero residues" pesticides for a lot of the fruit we produce.

Packaging represents another way to respect Earth. A totally brand new compostable packaging has been implemented in our production lines, being entirely degradable and used as a natural fertilizer. Great help for the environment!

Frutthera adopts the integrated production quality system that consists of a combination of eco-friendly production methods, the protection of both workers and consumers' health, and technical and economic requirements of the most modern production systems.





Full of Vitality







From the very beginning, dynamism and long-term outlook have allowed the company to reach internal largescale retailers and important market

they are sufficient to feed most of the

company's energy needs.

spaces from South America to the Middle East. Analysing percentage shares, the products are sold 50% in the foreign market, 30% in the internal retail and 20% in the general market.

Since commercial aggregation is a very important target to achieve, Frutthera joined one of the biggest Producers Organization in south Italy, with a total turnover > 70 mln €, Asso Fruit Italia, that is also a partner of Italia Ortofrutta, the biggest Italian

National Union.

As a natural consequence environmental awareness. Frutthera takes part in a lot of projects to achieve this target, organized by Universities, Research Institutions

and many other reliable partners. m

Storage and conditioning are controlled by a software cell that provides constant monitoring of the products' temperature and humidity, from the countryside until their final destination into targeted markets.

Monitoring the correct temperature during transport is guaranteed small electronic recorders installed on the means of transport. NICOFRUIT products are traceable and trackable.

Thanks to a computerized system, the product will be followed through all the stages of processing, packaging and storage to the sale moment so that the consumer can trace back the soil where the fruits and vegetables have grown.

Today FRUTTHERA Growers can count on more than 40 partners that cultivate more than 500 hectares of land.

On average, 160 seasonal workers are employed with a max of 350 in the most intense harvest periods. The factory is 12.300 sqm (indoor and outdoor). It is newly built and it has been designed to guarantee the quality of the products.

Sustainable development is the only possible model for NICOFRUIT - solar panels are located on the storage and on the processing plants, and

www.nicofruit.it

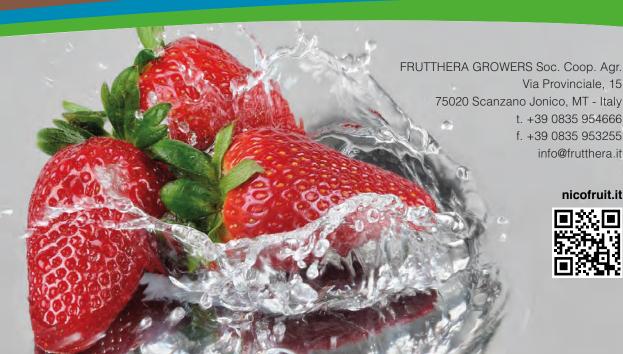






Full of Vitality





info@frutthera.it

nicofruit.it

PRODUCTION AND INSTALLATION OF FRUIT AND VEGETABLES PROCESSING LINES

avatta Group stands out in the market as a reliable partner for production and installation of fruit and vegetables processing lines.

Navatta Group is center of excellence for the production and installation of processing machines and turnkey plants with capacity ranging from 3 to 120 t/h of incoming fresh 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:







Cyclone sand separator – to separate sand from refined tomato juice – great improvement in final juice quality

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.

www.navattagroup.com



COMPLETE, TURNKEY AND TAILOR-MADE SOLUTIONS FOR DAIRY BUSINESS

ICF & Welko grants quality, production efficiency and energy saving in full compliance with the strictest international standards

ilk is broadly acknowledged as a complete staple: nature created a unique way of feeding babies safely and completely, providing nutrients, proteins and essential fats in equal proportions. Yet, milk has a cardinal role also in adults' lives since it contains essential vitamins and mineral salts.

The only limitations to its use are to be connected to its own exceptional features: since this is a food rich in nutrients, it may well be attacked and contaminated by microorganism, pathogenic and not, and even when it undergoes thermal treatment, its life cannot be longer than 6 days for standard pasteurization, and 25 days for ESL.

Moreover, since milk is also made of 90% water, volumes to be transported are relevant and transport itself may be expensive in economical and environmental terms. It follows that most consumers depend on local suppliers and fresh milk market is subject to substantially important variations.

UHT high-temperature treatment enables from the one hand to extend the shelf-life of the product, while from the other hand it reduces its vitamin content and changes its sensorial profile: UHT milk is







HI-TECH MACHINESFOR THE CANNING INDUSTRY



characterized by so-called "cooked" taste, due to sugar caramelization, volumes to be transported remain the same and therefore the problems connected to the consumption of fresh milk remain.

Thanks to spray drying, milk is more available in terms of geography and shelf-life: milk powder can be transported everywhere inexpensively, on account of its lower weight and volume, and then preserved up to two years while maintaining its nutritional and sensorial characteristics unaltered.

Increasing demand of special products (infant food, nutraceuticals, functional food) with special characteristics generates new challenges for plants manufacturers such as ICF & Welko: thanks to its extensive experience in processing plants for the food industry, especially for the dairy and beverage sectors, this company provides turnkey solutions for the production of any kind of milk powder while granting quality, production efficiency and energy saving, in full compliance with the strictest international hygiene, safety and environmental standards. Owing to its background as an engineering company, ICF & Welko designs and builds tailor-made plants, offers utmost process flexibility, making use of all automation levels. It also provides technical, technological and engineering support by interacting with all the players of the dairy business, from well-known multinationals to small firms committed to competing in the market thanks to a winning idea or first-class product.

Making use of its widespread assistance network and partnerships, in any part of the world, ICF & Welko guarantees assistance within 24 hours from the request.

Its pride is customer's satisfaction, real and concrete, since most of its turnover consists of customers

wanting to increase their production capacity, improve quality, diversify their investments by extending their product range. 🏛

www.icf-welko.it















tel. 0522 635111 - bsistemi@bettsistemi.com

BETT SISTEMI"THE STANDARD THAT DIDN'T EXIST"

he passion for "standardizing" in fact began in 1980 with the company called Mar-Bett, specialized in the production of standard components for bottling plants and, since 1994, continues under the Bett Bistemi brand, whose core business is the production of standard components for flexible automation in general.

Born in the heart of the Packaging Valley, Bett Sistemi has been passionately supporting its customers for 25 years, realizing their projects through an excellent process engineering, which integrates the Bett original components standard with the latest technologies (with over 1.5 million euros of investments in new machinery and equipment in line with Industry 4.0), to create static structures, protections and safety guards for automatic machines and dynamic structures for handling goods.

Always alongside the customer.

Today, Bett Sistemi, through its Bett Service, is the ideal partner for all companies looking not only for a supplier for the individual components, but also a provider of process engineering, capable of also fulfilling the function of contract leader, in a perspective of "Continuous improvement" over time. Direct production allows Bett Sistemi to satisfy customers quickly, providing both single components, as well as assembly, and already assembled kits for rapid integration.

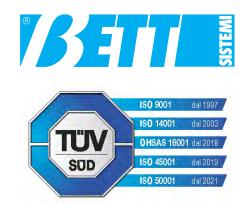
From a constant commitment to research and development aimed at achieving "the Standard we all needed", a range of over 12,000 original components have been created,





"The standard that didn't exist". With this claim, Bett Sistemi summarizes its mission which, since its origins, has marked its decades of corporate history.





which can be integrated into all company processes and can also be used

today in realizing projects compliant with the standards of industry 4.0.

THE GOALS ACHIEVED EACH YEAR

- 500 New Original Components included in the catalog
- 1,600 Static Structures
- 700 Dynamic Structures
- 16,000 Hours of Process Engineering in support of the projects/ products of our customers

BETT ORIGINAL COMPONENTS: MADE TO GIVE THE BEST, DE-SIGNED FOR SAVINGS

The range of Original Components from Bett Sistemi is among the most extensive currently available on the international market for flexible automation. Born from the standardization process, starting from the needs of the customers, and entirely "made in Italy", its components are a guarantee of constructive excellence, and can be perfectly integrated in all process machines (7 Handbooks) and in all transport lines (6 B-Flex Catalogs).

PROCESS ENGINEERING SERVICE

Thanks to the wide range of original components combined with the experience of its Bett Service, Bett Sistemi is able to provide a high quality Process Engineering service, which starts from the project provided by the customer, to the realization of the same.

WHEN EXPERIENCE BECOMES STANDARD, A STANDARD APPLICATION IS BORN

The company is convinced that an excellent product can only be obtained from process excellence.

Thus, from the best solutions created by the Bett Service come the new "Standard Applications", the "quasi machines" produced entirely by Bett Sistemi with its original components. Solutions that ready and complete with necessary paperwork, quickly inserted into the customer's project.

www.bettsistemi.com











CHIARAMELLO SOLUTIONS FOR TRANSFERRING AND MIXING FLUIDS IN THE FOOD INDUSTRY

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

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

We also build food mixers for various types of products.

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

For more information visit the website **www.chiaramello.it**













SOLUTIONS for transferring and mixing fluids in the FOOD INDUSTRY









Miscelatori



Sublimatore





Costacurta S.p.A.-VICO: since 1921 design and manufacture of components in wire and metal sheets for the food and non-food industry

The history of Costacurta S.p.A.-VICO, began one hundred years ago, to be precise between Milan, where the company's first office and store were set up, and Lecco, where the first production facility was established. Since its origins, the company has specialized in the production of metal canvases and nets.

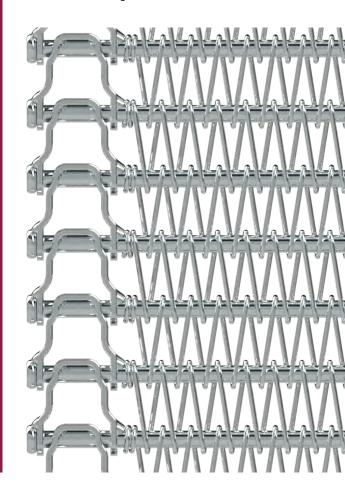
Still today the company's offices are located in Milan, while the production facilities are in Garlate and Olginate. The latter currently reach a total covered area of 40,000 square meters, where are created products which are currently exported to more than 70 countries around the world.

100 years after its foundation, Costacurta S.p.A.-VICO continues to be a family business, now in its 4th generation. In all this time, while carrying on the values set by the founder, the company has evolved, specializing in the production of compo-nents made from steel wires and sheets. Today, these components are used by man-ufacturers of industrial facilities in various fields, such as the food, mechanical, tex-tile, paper, oil, and petrochemical industries. Thanks to the tailor-made design of the components, carried out in constant dialogue with the customer, Costacurta S.p.A.-VICO is today a partner of the main international companies that develop technologies, provide engineering services, and build facilities for the Oil & Gas, petrochemi-cal, and chemical industries. At the same time, the company produces essential components for the food processing industry, including straight, curved, and slat conveyors and a range of filtering elements including wedge wire screens, perforated sheets, and metal canvases and nets. Costacurta S.p.A.-VICO has developed consol-idated experience in the design and manufacture of conveyor systems that are also used for heat-shrink packaging. Thanks to the raw materials used, Costacurta belts can be used for applications requiring temperatures ranging from about - 150° c. TO + 1,150°C. These characteristics make them suitable for many different industrial processes, but the variability of use is not only linked to the structural characteristics of the tapes, but also to the customer-oriented approach that characterizes the com-pany. In fact, customers are assisted in selecting the most suitable belt type for the conditions and the shape, size, and weight of the products being conveyed.

istory - 1921: it all began with a small family business... What has remained and what has changed in 100 years of Costacurta S.p.A.-VICO?

It all began with the production and sale of wire and metal sheets in a factory near Lecco and a small store in Via dell'Orso in Milan.

Since then, always starting from wires and metal sheets, we have diversified into the production of oil and gas, refining, and the petrochemical and chemical industry, then in the 60's we added the range of conveyor belts and filtering disks and in the '70s



Costacurta

punched sheets, reactor internals and hexagonal grids and, in more recent years, drilled sheets and wedge wire screens.

Our values were and are our compass: we have always aimed at excellence, with passion, commitment, respect, and integrity, constantly adapting to the continuous changes of the markets, diversifying our offer to serve an increasing number of industrial sectors.

Our components, in fact, can be used in many processes in the food, textile, packag-ing, chemical, energy, petrochemical, pharmaceutical, automotive, engineering, and architecture sectors.

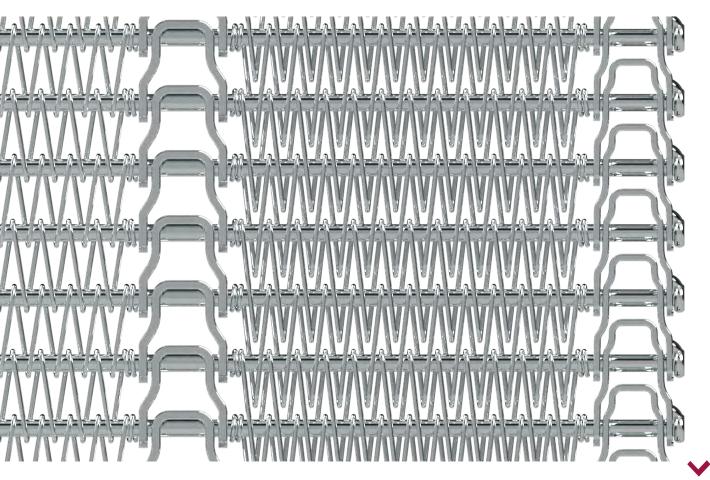
Products - What are the peculiarities that distinguish Costacurta products?

A careful study of the customer's needs and conditions of use, custom design of the component, constant collaboration and transparency with the customer during product development and assistance in case of replacement, combined with the quality of the materials, the technical expertise of our engineers and the experience of our production departments, resulting in high-quality products capable of meet-ing the most stringent specifications of our customers.

Food sector - What are Costacurta's products dedicated to the food sector?

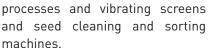
For cooking, pasteurization, cooling, freezing, and packaging processes we offer a range of straight and curved conveyor belts that can be inserted in straight tunnels or spiral towers.

We also have a wide range of filter elements such as wedge wire screens, perforated sheets (punched and drilled), and wire cloths and meshes that can be used in screw presses for the production of sugar, cocoa, and tomato concentrate, in lauter tuns and pressure filters in beer lautering and microfiltration









Conveyor belts - Why should a manufacturer choose Costacurta conveyor belts for their facility?

Because of our constant attention to providing the customer with high-quality ser-vice and product, starting from a careful selection of the materials used and selecting



materials of the highest quality, and applying advanced processes and technologies.

In the conveyor belts, the commercial department supports the customer from the receipt of the request to the selection and design of the belt, up to its installation and eventual resolution of problems. The engineering department, starting from a wide

range of solutions, studies and selects the most suitable conveyor belt for the design of the plant, the specific operating conditions and the characteristics of the product to be cooked, pasteurized, cooled, or frozen.

Costacurta's conveyor belts for the food sector can be made in stainless steel and carbon steel and can reach, depending on the material, temperatures ranging from -150° to 300° C.

However, the wide choice of materials, including special alloy steels, allows us to produce belts that can also operate at much higher temperatures, over 1000°C, in other applications than food.

The attention paid during the design phase, the quality of the materials, and the workmanship allow us to guarantee the best conditions for the transport and treatment of foodstuffs and a high level of hygiene and ease of cleaning. Finally, the automation and quality of the production process allow us to be flexible and meet the specific needs of our customers.





YOUR EXPERIENCE. OUR TECHNOLOGY.



Steam and superheated water boilers for food industry

Whatever your specific sector in the food and beverage industry, your treasure is the recipe and results you've achieved after years of research and innovation, searching for the best ingredients and processes. Considering the way you transfer heat to your product, how you clean, how you sterilize, will all make the difference and contribute to achieve the result you are looking for. For 60 years we have worked to innovate and develop our solutions for the food and beverage industry, with an holistic approach which includes the knowledge of your specific requirements. Your experience. Our technology. Amazing results.



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

n 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 boil-











ers 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.

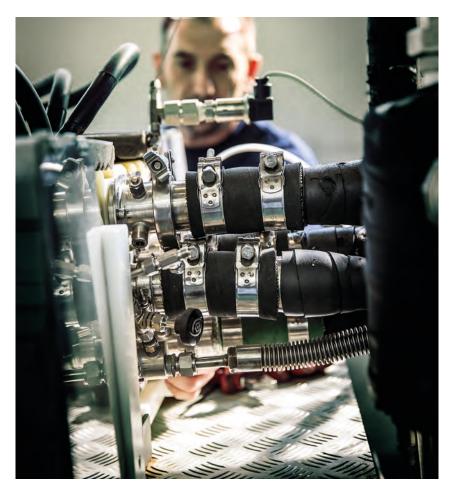
Interventions and results

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 CO, 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

	1	from interventions in:	56%
of which:	*	COOLING STATION	15%
	Ō	COMPRESSED AIR STATION	17%
	12	VACUUM STATION	12%
of which:		from interventions in:	
	II.	BOILER ROOM	65%
	*	COOLING STATION	12%
	1	COMPRESSED AIR STATION	13%
	12	VACUUM STATION	10%
		from interventions in:	
ich:	1	BOILER ROOM	30%
	米	COOLING STATION	24%
of which:	0	COMPRESSED AIR STATION	27%
	10	VACUUM STATION	20%



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.icicaldaie.com



€ 58,000 from fuel saving | € 28,500 € from power saving

€ 22,600 from power saving

€ 19,000 from power saving

€26,000 from power saving

520,86 Ton/CO₂ saving

107,38 Ton/CO₂ saving

78,41 Ton/CO₂ saving

356.400 kWh/year saving 282.972 kWh/year saving 325.387 kWh/year saving

237.600 kWh/year saving



FUEL SAVINGS 200.233 Sm³/year

equal to

- 9%

compared to previous consumption







PROSEAL'S FAST AND FLEXIBLE SOLUTIONS PROVE INVALU-ABLE FOR SOFT FRUIT GROWERS

roseal's advanced tray sealing machines are helping growers meet ever-increasing demand for soft fruit - which has been particularly strong during the current pandemic - by providing high quality, flexible sealing solutions that also deliver on sustainability.

As soft fruit volumes continue to climb, and with the market for fruit grown in the UK now estimated to be worth over £670 million a year, manufacturers are looking for flexible solutions that can meet the demanding high-speed requirements driven by the seasons.

Equally important is the need to minimise the use of packaging materials without impacting on the effectiveness of the pack, in particular its ability to provide product protection to help reduce food waste.

Proseal offers an extensive range of high-quality manual, semi-automatic



and fully automatic tray sealers, designed to be flexible and incorporating a number of unique design features that maximise speeds and efficiencies. In addition, Proseal machines' two-minute rapid-tool-change means endless varieties of tray formats, materials and sizes can be sealed on one machine, allowing users to quickly switch from one tray type to another.

"Our tray sealing machines offer fruit growers greater flexibility to seal different designs and sizes of trays with efficiency and accuracy," explains Proseal sales director Tony Burgess.

"This, combined with our innovative technologies and production lead times, make us a world leader in tray sealing soft fruits.





Tray Sealing Solutions

"ProMotion™ our continuous infeed technology, for example, has the potential to increase the speed of a tray sealer by up to 30%, while creating calm machine operations which ensure a smoother, more stable journey to the sealing station. This is particularly beneficial to delicate produce, such as soft fruit."

Proseal also manufactures a diverse and customisable line of intelligent conveyor systems, designed to create ultimate line control and optimisation and therefore perfect for the fast-moving soft fruit industry.

The company has pioneered several important sustainability initiatives throughout its 23 years. Proseal was the driving force behind the replacement of traditional clam-shell punnets with top film sealed varieties, which has now become commonplace in soft fruit markets across Europe and now North America, helping to minimise plastic usage by around 45% in most cases.

More recently, the company has been at the forefront of the introduction of new recyclable and compostable trays and film for fruit that can further reduce plastic usage by as much as 96%.

"Proseal continues to strive to develop the most effective and sustainable sealing solutions for its customers," concludes Tony Burgess.

"We are proud of the many innovations we have developed for the effective and efficient tray sealing of soft fruit. And we will continue to develop the appropriate technologies to help support sustainable solutions that deliver quality."

Proseal is part of the JBT Corporation family, a leading global technology solutions provider to high-value segments of the food processing industry, committed to providing a service that surpasses customer expectations.

www.proseal.com





Professionals in online auctions for the food and beverage industry

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



Online auction machinery for the food industry on former location Geertsen Vlees in Tegelen (NL)



Online auction fish processing machinery on behalf of Prins & Dingemanse in Yerseke (NL)



Register for free

Find and bid

Win

Pay and pick up

www.Industrial-Auctions.com

HOTMIXPRO COMBI

HotmixPRO is the most advanced range of professional solutions for every professional's kitchen.



Max bowl capacity	2x2 Its	
Min/Max rpm	0-8000 rpm (cold side) 0-12.500 rpm (hot side)	
Speeds	26	
Max. continuous working time	4	
Temp. range	From room temp. to -24° C From + 24° C to +190° C	
Power - Frequency	230V - 50/60Hz	
Heating power	800W	
Motor power	2x1500W	
Compressor power	250W	
Max. total power	4050W	
Sd card	Yes	
Weight	41 kg	
Body	Stainless Steel	

he standout, unique feature of HotmixPRO Combi is its ability to cook and chill in two separated, 100% independent bowls: the left side chills and freezes, from room temperature down to -24° (-11°F); the right side cooks, from +24°C to +190°C (75° 374°F). Of course both sides have perfect, degree-by-degree temperature control, and a powerful 1500W motor, for heavy-duty work. The hot side can reach 12500 rpms, while the cold side reaches 8000rpm (it works at a slower pace to better stand the toughness of some cold preparations).

The **interchangeable bowls** speed up and facilitate the process of pasteuriza-

tion. What's more, you will be able to process **two preparations at a time**, since the bowls are completely independent.

HotmixPRO CREATIVE

It has a powerful motor **(1500W)**, capable of very high speeds (up to **12'500 rpm**). It can cook up to +190°C (374°F) and cool down to -24°C (-11,2°F), with **degree-by-degree temperature** control **within the same bowl**.

Furthermore, since it's able to reach very low temperatures, it can **temper chocolate**, **pasteurize** and **stabilize any type of emulsion**.

HotmixPRO MASTER

The incredible, unique feature of Hotmix-PRO Master is its ability to create vacuum in its bowl while working.

It has a powerful motor **(1800W)**, capable of very high speeds (up to **16'000 rpm**), and it can cook up to 190°C (374°F) with degree-by-degree temperature control (1°C increments).

The unique feature of HotmixPRO Master is its ability to create vacuum in its bowl while working.

 Vacuum cooking or chopping Vacuum lowers boiling temperatures, so taste and colors of your ingredients stay unaltered. Where there's no air there's no oxygen, where there's no



ITALIAN SWEET TECHNOLOGY

You choose the product,



Performance

INNOVATION

Research

Flexibility

quality

PROCESS

CUSTOMIZATION

We engineer the machines!



CREATIVE

Max bowl capacity	2 lts
Min/Max rpm	0-8000 rpm
Speeds	26
Max. continuous working time	4
Temp. range	From room temp. to -24° C
Power - Frequency	230V - 50/60Hz
Compressor power	250W
Motor power	1500W
Max. total power	2050W
Sd card	Yes
Weight	26 kg
Body	Stainless Steel





Max bowl capacity	2 lts
Min/Max rpm	0-16.000 rpm
Speeds	26
Max. continuous working time	12
Temp. range	+24° C to +190° C
Final Vacuum (absolut mbar)	Vacuum 80-90% Boiling point about 30°C
Power - Frequency	230V - 50/60Hz
Heating power	1500W
Motor power	1800W turbo air motor system
Pump power	100W
Max. total power	3400W
Sd card	Yes
Weight	16 kg
Body	Stainless Steel



oxygen there's **no oxydation**. Also, it guarantees a steady, specific weight and the **absence of aerobic bacteria** (no air, no aerobic bacteria).

- Vacuum reductions lead to the intensification of your recipes' taste, thanks to the low temperatures. It concentrates the flavors of the ingredients with a process that does not change the colors, and the volatile aromatic components do not get lost.
- **Vacuum soaking** During the creation of the vacuum in the bowl, any air con-

tained in the food will be eliminated as well. Then, thanks to a particular connection, when stabilizing the atmospheric pressure it's possible to insert a gas or a liquid to soak your product.

What's more, it comes with a few, **revolutionary features**, such as the WT function, NEXT, and the programmable recipe memory.

These helpful -and *unique* - characteristics introduce a new level of comfort in your laboratory: in fact, the *operator*'s

presence is not constantly required anymore. A great number of preparations can be made by simply inserting the ingredients into the bowl, selecting a recipe, and pressing the START button.

Thanks to the **programmable memory** and the **perfect temperature control**, HotmixPRO thermal mixers can guarantee constant, standardized, and optimal results.

www.hotmixpro.com





Let CodeMeter inspire you with new license-driven business models

- Protect your digital assets from piracy and reverse engineering
- Secure the integrity of your endpoints from tampering
- Implement license-based readily adaptable business models



BUSINESS 4.0, COURTESY OF SOFTWARE LICENSES



oftware licenses have evolved far from their humble origins as smart tools to beat the threat of piracy. Today, they are one of the driving forces of any business in the digital, software-powered economy. Cloud computing has given this evolution another shot in the arm, as it has broken the traditional supremacy of monolithic permanent or temporary licenses with a plethora of ingenious service models to match the rapidly

changing needs of users and the agile business strategies of vendors. Subscription-type models in particular are becoming more and more popular, including in industry: Users can get access to state-of-the-art technology for a small and manageable fee, and vendors benefit from predictable income streams and the opportunity to adjust their offerings to go with the flow of the market. However, there is no one-size-fits-all solution.

This is where companies like Wibu-Systems come into their own. Their CodeMeter technology supports no fewer than 20 licensing models, ranging from traditional licenses to custom options for even niche requirements.

 Features-on-demand: It might be tough to admit, but it is very rare for a user to utilize every single feature and function of their software, at least when starting

Software licenses have evolved far from their humble origins as smart tools to beat the threat of piracy



out. A feature-on-demand model allows users to pay only for those parts they genuinely need, and to power up their software by activating add-on features remotely when and where they require them.

This needs no complex logistical underpinnings, and it works perfectly even for hardware devices: With the capabilities already built into the device, a license will activate the dormant functions.



- Pay-per-use licenses: Usagebased models are a favorite for many users, especially for those that rely on a feature only sporadically to cope with peaks and troughs in demand. Desoutter Industrial Tools has added an extremely creative twist to this basic concept: The company allows users to buy credits for using their tools' features, giving them unparalleled freedom in return for their investment, as they can spend the credits whenever a function or service is needed.
- wolume-based licenses: A common choice for industrial and institutional clients, licenses can be bought by the batch to match the number of seats or users. With massive numbers of licenses typically changing hands in such scenarios, the vendors and clients have considerable leeway in negotiating the unit price, depending on the type, quantity, and prospective use of the licenses, and the ability to audit their correct use.
- Leasing and borrowing: Users can also choose to not buy an application or device outright, but to rent or borrow a license

for using it for a defined period. The taken license is flagged and not available for other users until the term ends, the local license expires, and the license on the server is freed up again.

For added freedom, licenses can be returned early or renewed before the time is up. This is a boon for smaller enterprises, as they can buy a pool of licenses to hand out to their users when they need them out and about, for maintenance services in the field, visits to clients, or working from home.

Modern licensing models can give businesses the winning hand in their market, if they stay on their toes and find the right response to what their users truly need.

www.wibu.com





MACHINES AND EQUIPMENT FOR FOOD PROCESSING AND PRODUCTION HYGIENE

OWICKI SRL puts a particular emphasis on providing top quality products and the most advanced technological solutions. We are flexible in supplying custom-made systems, reliable in quality and service.

Our main goal is to satisfy the customer's needs at the highest level.

Machines for meeting your needs The highest quality for you

The crucial aim of the NOWICKI's activity is to satisfy the customer's needs at the highest level.

NOWICKI SRL is a distributor for Italy of approximately 20 series of types comprising almost 150 models of machines for meat and food processing as well as complete, technological lines for individual applications.

We can offer highly advanced technologies of cutting, machining, plastic forming as well as on repeatable assembly operations. All of them are NOWICKI srl

carried out with professional, digitally operated machines which are supervised by the computer quality control system; for example machines for water cutting ("Water Jet"), for plasma cutting, laser cutting, machines with numerical control: turning lathes, CNC millers, advanced semi-automatic welding machines and assembly stations.

Every step of production process of the machines we sell is subject to quality control which begins with raw materials delivery (testing of hardness, testing of conformity of material composition and dimensions), include all manufacturing operations and it is finished with final quality control of ready machines in operation.

All the quality control system is su-

pervised by a computer system which eliminates defective materials, components and semi-finished products so that the highest quality elements are directed to the assembly lines.

Visit: www.nowickisrl.com











XNEXT® INTRODUCES XSPECTRA®, THE MOST ADVANCED FOOD INSPECTION TECHNOLOGY

n 2018 there where in the European Union 136 alerts for dangerous foreign bodies (FBs) contained in the food products, with an increase of about 35% compared to the previous year.

This data is the reason why Xnext® was created to respond to the new industrial and commercial challenges of our time, introducing an extremely capillary and effective control system that saves companies time and money, and drastically reduces the number of products that are recalled from the market due to consumer complaints.

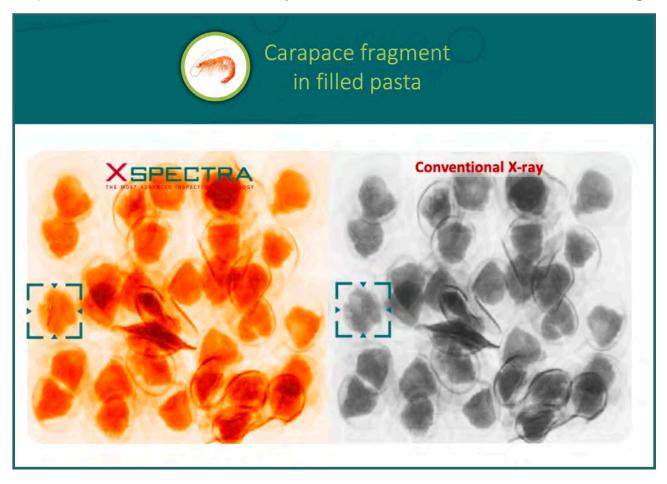
No matter how much care is taken in choosing healthy and organic food, no matter how much attention is given to the production chain, this initial data highlights how far there is still to go in the field of food inspection.

Given that the most frequent contaminant found in company analyses is plastic, which is highly harmful to the body and increasingly common in organic raw materials, new solutions to the problem are required, namely relying on more efficient methods using more detailed multilevel analysis.

Xnext® has developed the heart of its x-ray multi-energy system, XSpectra®, to further increase the quality of supply chain control.

XSpectra® is based on inspection technology that is capable of detecting even very low-density foreign bodies and is designed to interact seamlessly with every production system currently on the market.

The inspection machine is usually inserted at the end of the production chain in order to find most contaminants at once, but can be inserted into all three main stages



Xnext® was created to respond to the new industrial and commercial challenges of our time



In the pictures you can see the analysis made by XSpectra® compared to a normal technology on the market.

of the production chain, at the start with an analysis of the external contaminants of the raw materials, after the food components have been processed, and directly in the final inspection when the product has already been provided with its outer packaging, where a further analysis is carried out to assess the condition of the package and its final contents before being placed on pallets for shipment. Analyses are carried out using a multilevel approach based on photonics and nuclear electron-

ics, which are brought together using artificial intelligence algorithms.

This system is the result of 9 years of research and, compared with current inspection systems, allows very low energies (below 5 keV) to be analyzed, which is necessary to detect materials of very low density.

In concrete terms, XSpectra® analyses the interaction of x-ray photons at different energies, and compares the energy of the photons absorbed

by the product and the various contaminants present in and on the surface of it, if this were present (because different materials absorb energy differently).

In just a few milliseconds it generates a chemical and physical analysis of every product on the production line, whether loose or packaged, and identifies the contaminants present.

The great revolution lies in the fact that, while most analysis systems can only find high-intensity materials such as metal, stone or glass, XSpectra® can also detect very low-intensity contaminants such as nuts, insects, wood, and plastic.

Common examples of products rejected by XSpectra® include wood found in glass jars containing olives, pieces of nitrile gloves in chocolate bars, rubber bands inside tomato cans, pieces of carapace in filled pasta, and Pit and EPDM gasket fragments in sandwich bread.

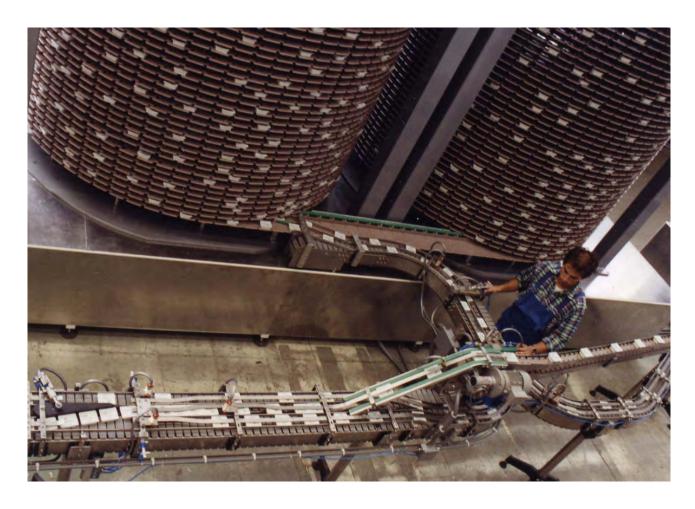
www.x-next.com





CONVEYORS FOR COOLING APPLICATIONS

Cooling and Freezing of food products is in most cases an integral and final part of the processing line just before the primary packaging.



he typical machine in these cases is a spiral conveyor that can work either in ambient temperature or in air conditioned or refrigerated cabinets, even if some straight freezing tunnels are still sold, they are not even closely as popular.

In this article we are going to concentrate on the main conveyor technologies used for these applications, spirals conveyors are not all the same and each technology has its ups and

downs that should be taken into consideration for the overall machine selection. All the systems are based on a sideflexing chain and what we have been seeing is polymers constantly replacing steel, now not only for the body of the chain but also for the connection pins. Modular chain give huge advantages for maintenance and sanitation and new materials are increasing the versatility in terms of temperature range and properties for direct contact with food products.

The first technology on our is the **side drive**, in this case the chain is pulled by pinions placed on each spire on the outer edge of the spiral conveyor. These pinions are connected with the same shaft and joint; depending on the configuration and speed multiple shafts with pinions may be needed on different sizes of the spiral. The downside of this system is immediately evident due to the complicated mechanics and extra safety enclosure needed, but on the up side the side drive gives







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





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 distribuition of products between the primary and secondary packaging machines.







almost unlimited flexibility in terms of layout and configuration allowing oval tracks and intertwined spires that give great benefits in terms of space occupation. This technology has been available for quite a long time now, so it's mature but far from fading and the switch to plastic modular chain promise interesting developments.

The introduction of modular chain is what drove the development of the drum drive technology that allowed to use normal sideflexing modular chain for the longest conveyors section without any special reinforcement. The whole concept of the drum drive is to have a rotating drum (either continuous or a cylindrical cage) inside the spiral on which the chain is pulled. The drum will move at a little bit higher speed compared to the one required by the conveyor (called overdrive) and doing so will pull the chain applying low tension. The advantage of being able to drive many meters of chain, filled with products, with just two motors (one of the drum and one to help the chain to get out from the drum) is significative even if balanced with the complication of the chain tensioning system as well as a control system that allow to finely adjust the speed of the drum to the correct overdrive speed. Another downside is that the configuration of the spiral is pretty much fixed to a cylindrical shape with just the possibility to choose the position of in and out.

Kind of a middle way between the two solutions above there is the **direct drive** system, also thought for a modular chain, this uses a rotating drum too, but this one acts as a giant sprocket, actively engaging the inner side of the chain. It retains the same low tension capacity of the drum drive as well as simple mechanics and low number of motors, but its limit is still the circular configuration only, while resolving the issue of the control system for the overdrive speed.

Last but not least, M.H. Material Handling has another quite unique

solution that can be used only after the primary packaging but is extremely compact and allow many meters of conveyor even with products in a single row. The Heliflex System is a special table top chain that uses double rotating drums with direct drive concept (so the drums act as pinions), that uses a single motor. It is suitable for a niche of applications, mainly the cooling of melted cheese after the wrapping and of ready-made dishes in open or sealed trays. While being limited to the packed product and to one or two lanes, the Heliflex still is a great deal after primary machines allowing to make the cooling in a compact footprint with competitive costs. îm

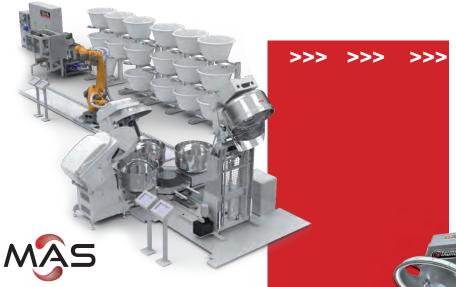
www.mhmaterialhandling.com







Supplying Mixing Solutions



The Automatic Systems for the Management of Dough Rest Process in the Tank allows the integration of all the Automated Mixing Solutions produced by SIGMA with a System where a six-axis robot manages the dough rest process of the dough in the tank, placing the tanks on one or more shelving that can be located even in a pre-rising prover and/or proofing chamber. The project can be in various configurations being different in size, capacity and hourly production capacity, having the possibility to integrate all SIGMA standards machines, in different types and sizes.

The new Removable Bowl Industrial Mixers double or single spiral of VE TAURO series machines are suitable for high production lines, for applications which demand high performance and great professionalism. Able to perform **4-5 doughs/hr with** a single spiral or **8-10 doughs/hr with the double spiral** are ideal for baking doughs. They provide significant increase in development process, due to the excellent refining and oxygenation of the dough. The engines ranging from 25kw to 50kw,depending on the models, provide a large power reserve and ensure the torque required in the most demanding situations.

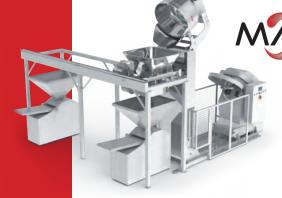






The spiral mixers with bottom bowl discharge enable the dough discharge directly on a conveyor belt or into removable bowl. This device makes them very versatile and enables them to be used in all the dough processes. In this way any problems of handling and of the lay-out of the production processes can be solved.

The Automated Mixing Systems are made of one or more mixers with removable bowl, the trolley of which, at the end of the mixing, comes automatically away from the machine and locates itself in the forks of a lifter, that lifts and overturns the dough into the feeding hopper of a bakery production line. The system is controlled and run by a PLC with Touch Screen. It is possible to interface a feeding system of raw materials, flour, water, salt, yeast and so on automatically with the purpose to get a programmable system able to guarantee constancy and uniformity of production leading to considerable savings of money, labour and reduction of eventual human mistakes.



www.sigmasrl.com

TOMRA FOOD ANNOUNCES NEW ORGANIZATION AIMING FOR GROWTH

The creation of two business areas: fresh food and processed food



OMRA Food announced today its new organization focused on two business areas, Fresh Food and Processed Food. This change creates a powerful organization, unique in the world, which brings together the most extensive technology portfolio, the widest array of Research & Development skills, and the strongest global footprint in the sector. and blueberries. This business area will integrate BBC Technologies' and Compac's portfolios and expertise. Geoff has been working in technology for over 25 years with executive leadership roles in Ag Tech for the past 16 years. Geoff is driven by innovating customer-led solutions which support delivery of high quality product that

meet end-consumer requirements. Ashley Hunter, who has been leading the processed food segment, will retire on January 31st, 2021, after a long career within the company.

He successfully led the first stage of integration, which TOMRA Food is taking forward with this new organization.

With the new organization, TOM-RA Food announced the following appointments:

Ken Moynihan is CEO TOMRA Processed Food, the global leader in sorting potatoes, nuts, vegetables, and dried fruit. Ken brings more than 15 years of experience in technology and executive leadership roles, most recently as the CEO of Compac, the global leader in fresh fruit sorting technology acquired by TOMRA in 2017.

Ken is driven by seeing technology transform the global food supply chain and brings his international management experience with a market-led technology approach to the broader food industry. Born in Ireland, Ken has lived and worked in South Africa, the USA and New Zealand, and will now be sharing his time between the USA and Belgium.

Geoff Furniss is CEO TOMRA Fresh Food, the global leader for turnkey packhouse solutions in fresh fruits and vegetables, such as apples, citrus, avocados, stonefruit, cherries



Ken Moynihan CEO TOMRA Processed Food





IN A WORLD OF ACRONYMS



"HOPE" IS A NEW FAMILY OF FILMS ABLE TO GIVE US A CHANCE FOR A BETTER WORLD



HIGHLY ORIENTED POLYETHYLENE



Two new product families for monomaterial structures suitable for recycling, with outstanding characteristics worthy of the best known multi-material non recyclable laminated structures. The optimal solution for applications which allow to create packaging with performances comparable to laminates with PET and/or PP but all recyclable.

For further information, you can visit the company's website $% \left(1\right) =\left(1\right) \left(1\right)$





Geoff Furniss CEO TOMRA Fresh Food

Michel Picandet, Executive Vice President and Head of TOMRA Food, stated: "First of all, I would like to thank Ashley for his invaluable contribution to our company bringing a wealth of experience in the industry. Going forward, I am confident that Ken and Geoff will successfully consolidate our leading position in the processed food sector and further grow our well-established business in the fresh food market. Compac and BBC Technolo-

gies are joining forces within the Fresh Business area built on strong partnerships that we will continue to develop. The new organization will allow us to build on our strengths, push the boundaries of innovation, and remain the global leader of choice for our customers. With its an enhanced go-tomarket approach, our new set-up will facilitate our efforts in striving to lead with excellence for our people and our customers."



Michel Picandet, Executive Vice President and Head of TOMRA Food

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 around the world 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 that was 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 ~9,3 billion NOK in 2019. The Group employs ~4,500 globally and is publicly listed on the Oslo Stock Exchange (OSE: TOM).

www.tomra.com







€ 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

cleaning platform arrives ready to go to work with all hoses and attachments.



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.



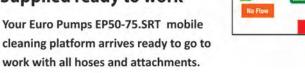
Built-in protection for longer life

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.



- · 25m Heavy Duty Hose with 1/2" 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



•OPTIONAL EXTRAS

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





CLEAN BUT NOT CLEAN

his purple look is a buildup of protein which occurs over days and weeks. It appears slowly, so you get used to this look. The purple protein builds up due to improper foaming & scrubbing, then you need to use an 'acid' to remove this film.

Cleaning crews will typically roster this in on a weekly or monthly basis depending on what the factory produces (blood, meat, vegetables etc). The acid will remove the purple protein & the stainless steel will be back to shiny again, often the cleaners will use a break sanitizer within this routine.

So, is this purple surface really clean?

Not from my cleaning experience. To be a properly clean surface both visually & microbiologically clean, a film should not be present. So how do you fix this?

Lack of agitation or 'scrubbing ' is the problem, build up will start on stainless surfaces when not agitated properly, and build night after night, getting worse and worse. Scrubbing every surface in a plant is literally impossible, sometimes there is a lack of time & other times the equipment is just too hard, for example an auger how would we scrub this or certain conveyors belts that are moving or areas the hand cannot physically get into. Blending machines are another example you either need to get in after lock-out (which most plants would not allow) or you need doodle bugs but you cannot guarantee to get every square inch.

So what is the solution? high pressure agitation! can give you a better result that hand scrubbing.

Now most people will have a heart

attack at this thought because they are scared equipment will be damaged.

Now this is true if used incorrectly, however if you use the correct pressure with the correct water flow (flow being critical) you will get a good cleaning result rather than scrubbing with a scourer. In fact pressure has the potential to be a higher quality clean than a scourer.

Scourers are a source of cross contamination if your first rinse out is not done thoroughly. Then don't for-



Have you ever noticed purple streaks on stainless steel in your factory?

get the purple protein that you cannot even see. If you have enough cleaners to do a lot of scrubbing, this system can work but there is a lot of room for error.

Also cleaning happens in the middle of the night so it depends on your







manager & how well they run their crew. This method has worked forever but is it the way forward? In my opinion it isn't. In our cleaning cycle we do not use Scourers except for a very small amount of jobs. We have good cleaning times & micro results without scorers. We have customers using our trolley and gun which has replace most of their scrubbing & they are getting excellent results. Staff get the training and support to use the equipment properly, the training is hands on so the cleaners can be confident and learn to not damage equipment. If you would like to discuss reducing your hand scrubbing or improving hygiene please contact us today.

We believe that a high pressure - high temperature machine will offer you a faster better clean, foam and sanitising machine, using less water and producing better cleaning KPI's.

We have been trialling it intensely tweaking sensors and PLC's, while doing our own cleaning contracts and consulting/cleaning 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 50lmin which has never been possible in a mobile unit before. Combine that with additional maintenance and safety features like oil pressure, input flow sensor (with PLC option available) to create what we believe is the best wash and foam trolley anywhere in the word.

It washes, foams & sanitizes with the power to clean drains, chutes, floors (with floor cleaner), roofs, chillers, refrigeration units and more! It can even be connected to power one of our Tub & Crate Washers. There is also the option of adding time-saving CIP spray bars and high-pressure rotors for spiral freezers and Conveyors.

To find out how to improve your cleaning and quality at

www.europumps.com.au or www.calgiene.com



EXPERTS IN CREATIVITY, INNOVATION & SUSTAINABILITY









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 manu-

facturing 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 single, 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 It up to 300 It. capacity of each hopper). Lawer is the ideal partner for the automation of the powder micro-ingredients dosing. 🏛

www.lawer.com







KOCH SEPARATION SOLUTIONS ACQUIRES LEADING DAIRY TECHNOLOGY PROVIDER RELCO

Acquisition positions KSS as comprehensive solutions provider to serve dairy, food and beverage industries with cutting edge technology and service

och Separation Solutions (KSS), a global leader in separation technology, today announced the acquisition of RELCO, a top provider of cuttingedge process technologies for the dairy and food industry. The acquisition allows KSS to better serve customers and leverage the synergistic capabilities of its various complementary technologies in the dairy, food, and beverage markets.

"The acquisition of RELCO marks important step in KSS's transformation to become an solutions integrated provider, delivering superior value to existing and new customers," said Manny Singh, President of KSS. "We believe that separation challenges in the dairy, food, and other industries are complex and rarely solved with one technology. The acquisition of RELCO adds complementary evaporation and drying technologies to the existing membrane and ion exchange offering of KSS. This combined product offering, along with deep applications knowledge, will ensure a seamlessly integrated solution while delivering maximum value to our customers."

KSS has a long history in providing innovative membrane products to the food and dairy industry, having

pioneered the development of the sanitary spiral wound membranes commonly used today. KSS seeks to drive technological innovation to meet market needs through the vertical integration of KSS' advanced membrane filtration and ion exchange capabilities with RELCO's proven evaporation, spray-drying and crystallization processes.

The acquisition of RELCO expands KSS' scope of capabilities, allowing for a meaningful partnership with customers through greater choice and flexibility in selecting separation technologies best suited for their unique operations.

The addition of RELCO's proven thermal technology enhances KSS' overall solutions offering to better serve dairy as well as food and beverage customers in fruit-juice, biotechnology, starch and sugar, nutraceutical, and both plant- and animal-based protein applications.

"I founded this company almost four decades ago offering only sanitary welding services and came to realize the greater need for custom designed and engineered systems in the dairy market," says Loren Corle, Founder and Owner of RELCO. "Since then, I have proudly watched RELCO grow and evolve its technologies to

ensure that we are always the first call when customers are faced with a challenge. I am thrilled that KSS shares that same mentality and desire to work collaboratively with their customers to develop strong, long-lasting relationships."

Mark Litchfield, President of RELCO, adds "To be acquired by a company as successful and respected as KSS is a vindication of our vision, the dedication of our teams, and the relationships we have developed.

This acquisition will allow us to offer integrated and innovative membrane filtration and ion exchange systems with our solutions targeting value addition, energy efficiency, and waste minimalization.

KSS offers ideal growth conditions for an innovative and qualityfocused company like RELCO and we are excited to be a part of this expansion."

For more information on this acquisition and KSS's separations offerings, please contact

getinfo@kochsep.com 🗎









In cross-flow filtration the liquid is pushed by means of pressure through the particular pores of a membrane: thanks to this system the clients are able to improve the obtained quantity of product, decreasing energy consumption and production costs, for example avoiding the usage of clarifiers and adjuvants.

Cross-flow filtration is also:

- a modular system that can be extended;
- 4.0 technology for remote control;
- a completely authomatic system.



Red and white wines



Cider and vinegar



Fruit juices



Other liquids that tolerate the -5°C / 55°C temperature range



STAINLESS STEEL TANK
MANUFACTURER

SINCE 1958

Cisterne is an Italian company based in Noceto, in the province of Parma - Emilia Romagna, in the heart of the Food Valley of Northern Italy.

Since 1958 the company has been producing stainless steel tanks, gaining through the years more and more experience, giving a special attention to the customers' requests.

We create customised solutions working closely with our clients during both the designing and the manufacturing process.

All our tanks are the result of a synergistic creation between our experience and our customers' requests.

Our certificates clearly show the high quality of our products.

From 2001, B.G. Cisterne design and produce stainless steel tanks, including power supply and feeding systems, for processing and storing food liquids.

Our most successful products are the horizontal tanks (standard or light – isolated or simple walled) and the vertical tanks (with hatch or bolt-on lid). Their capacity goes from 1,000 lt up to 35,000 lt.





We use high-quality materials, with their own certificates of origin, chemical analysis and certificated mechanical characteristics.

B.G. utilizes cutting-edge machinery for the processing of stainless steel and the following welding: TIG-MIG-SAW-LASER-CONTINUOUS SEAM. A digital rendering is provided for each product in order to better verify the product compliance with the customer's requests and criteria.

BG SRL offers services too, not only products.

Our philosophy has always been oriented to the customer's scrupulous satisfaction, which lead us to develop the manufacturing of water tanks, in addition to our original milk tanks.

- Water emergency
- Refrigerated tanks
- Storage tanks

FOCUS ON THE WATER PRODUCT

Possible practical uses:

- BOWSERS FOR DRINKING WATER STORAGE AND DISTRIBUTION
- BOWSERS PROVISION
- EQUIPMENT AND CUSTOM TECHNI-CAL FEATURES
- TANKER ARRANGEMENT CONSID-ERING THE MAXIMUM CAPACITY OF THE TRACTOR
- SELECTION AND GUARANTEED ALIGNEMENT FOR A BETTER BAL-ANCE OF THE VEHICLE

Designing and manufacturing of stainless steel tanks for the transport, the storage and the supply of water resources.

Fields of application:

- CIVIL SECTOR
- AGRICULTURAL SECTOR
- INDUSTRIAL SECTOR. 🏛

www.bosellicisterne.com



COLUSSI ERMES Advanced Washing Systems Large capacities of up to 6,400 crates/hour, speed and perfect drying, these are just some of the features which, together with the possibility of treating crates of different types, set the new generation Colussi Ermes centrifugal dryers apart from the rest. Continuous innovation over the years has led not only to the creation of ever more powerful spin dryers with increased performance levels, but also to the birth of the "super-compact" spin dryer for crates; a machine able to combine large drying capacity with a minimum footprint. The Colussi Ermes crate spin dryers can be included in existing systems as well as new installations; a design which has been designed in terms of the footprint and the parts, allowing it to be adapted to extremely limited areas. **Continuously** innovating to improve your safety

COLUSSI ERMES is a worldwide leader in the design and manufacture of tailor made washing systems in various food sectors, such as the bakery, confectionery, chocolate, meat and dairy, and also in logistics, pharmaceutical, hospital and automotive Industry.

Every project is extensively studied, customized and developed by Colussi Ermes specialists in order to ensure the absolute hygiene fully satisfying the most severe and rigorous international standards HACCP.



Colussi Ermes - Via Valcunsat 9 33072 Casarsa della Delizia (PN) Italy Tel: +39 0434 86309 www.colussiermes.com

FOODLINE CO. INDUSTRIAL BAKERY & CONFECTIONERY PROJECTS AND INVESTMENTS



OODLine Co. is a Technology/Consulting and Engineering company, based in Athens, Greece.

We are active in the planning, development & management of Industrial Bakery & Confectionery projects and investments. Our history background goes beyond 35years in the food industry. Since then, the company has appended skilled Project Engineers accredited by the IMECHE and registered with the Engineering Council, as well as qualified Food Technologists & Engineers under the accreditation of IFST. Based on FOODLine Co.'s significant and diversified experience, the services we provide are divided in two main sectors:

- Turn-key, design, project management and start-up for complete food processing units
- Product Amelioration, cost reduction, Research & Development, and Quality Assurance of products (Either in our fully equipped Laboratories or on-site at clients location).

FOODLine Co. vast heritage, dedication and passion are proudly evident in the long (and growing) list of references within the Food Industry. FOODLine Co boasts successful projects throughout Europe, Africa, M. East and Asia. Since its initial operation, when FOODLine Co. was primari-

ly involved in technological know-how, new product development and existing product improvement, the company has continuously extended and enriched the scope of activities.

Today, FOODLine Co. covers all variables and services for the design and development of industrial food processing plants, encompassing the following main departments:

- ENGINEERING DEPARTMENT:
 responsible for: Project Management Project Engineering. This
 department is superintended and
 organized by accredited Engineers
 from the Institution of Mechanical
 Engineers, as well as the Engineering Council.
 - **TECHNOLOGY DEPARTMENT:** The "heart" of the company where every project "kicks-off". A pilot laboratory is fully equipped with state-of the art equipment which has the possibility to simulate each dedicated production line in the food industry. We are able to successfully convert the results we obtain from the micro-scale to the industrial scale. In cooperation with certified analytical laboratories in Germany, Greece, Jordan, etc... FOODLine Co. is fast emerging as the most reliable partner in the world-wide food processing industry.

"We design industrial plants from A to Z & guarantee their performance ...with the Know-How of 39 Years" ⋒











TECNOMEC di Scauri R. & C. snc Via O.Boni, 35 - 43029 TRAVERSETOLO (PR) Tel.0521.342120 Fax.0521.342603 http://www.tecnomec.pr.it - e-mail:scauri@tecnomec.pr.it



Vasca di cottura: E' costruita interamente in acciaio inox con albero agiattore e rotazione lenta, adatta per mantenere l'omogeneità di un prodotto durante le fasi di sosta e di chiusura.

Tappatore: La macchina chiude vasi in vetro con tappo twist-off, in plastica e con vite in alluminio. Il funzionamento è automatico. Soffiatrice aria vapore: E' una maccchina di concezione semplice idonea al soffiaggio di contenitori in vetro, plastica, banda stagnata

ecc..... Il soffiaggio dei contenitori avviene mediante una serie di getti di aria filtrata e successivamente di getti di vapore. Riempitrice 4 teste : La macchina è stata progettata e costruita per riempire in modo automatico e preciso contenitori in vetro di prodotto alimentare. Il dosatore è il cuore della macchina, esso è composto da una tramoggia di ricevimento prodotto e da un sistema di dosaggio a volume.

Capsulatrice: La capsulatrice automatica lineare è una macchina costruita per chiudere con vuoto a vapore vasi e bottiglie in vetro con tappo twist-off.

KOREA PACK 2021'S NEW DATE: MAY 25(TUE.) – 28(FRI.) 2021, KINTEX, KOREA

OREA PACK, the largest packaging exhibition in Korea, will be held at KINTEX 1 from May 25th to 28th, hosted by the Korea Packaging Machinery Association, the Monthly Packaging, and Kyungyon Exhibition Corp.

KOREA PACK 2021 is a special edition designed to provide marketing opportunities for domestic and foreign packaging companies that were difficult to participate in the exhibition due to Covid-19 and companies in need of promoting new products. It will be held with ICPI WEEK 2021 (International Cosmetic and Pharmaceutical Industry Week) concurrently.



A premium online platform of KOREA PACK will be coming soon for an active business exchange. The offline and online exhibition will be held together to overcome the COVID-19 crisis. This platform is to showcase exhibitor's products & technology and to have an online business meeting. The exhibitors can upload their webinars, too. KOREA PACK Hybrid exhibition will cover such main prod-



uct groups as packaging machinery, packaging materials & containers, package printing machines, packaging inspection equipment, packaging processing machinery & equipment, package design, services, food processing machinery and logistics system & equipment. KOREA PACK is distinguished by its unique breadth of products and services and the unparalleled internationality of its exhibitors and visitors alike. The Ministry of Trade, Industry and Energy selected KOREA PACK as one of the "Global Top Exhibition" as it has the possibil-

ity of becoming one of the globally renowned exhibitors with competitiveness.

In addition, KOREA PACK features leading industry seminar and conference such as Korea Star Awards, PAC 2021 (Packaging Association Conference), food · pharmaceutical · cosmetic director Discussion Meeting to present and discuss latest industry developments, trends and techniques for the packaging industry. Thousands of key actors in related industry gather for these seminars & conferences. KOREA PACK provides all of the package machinery. It gives visitors insights into the technologies used to produce the exhibited packages and provides opportunities for direct and creative exchanges with participating companies. At the KO-REA PACK, exhibitors can showcase their machinery, products and technology to potential international markets. For the period of KOREA PACK offline exhibition, the organizer will do the best to ensure the safety of participants.

www.koreapack.org











ONLINE – OFFLINE HYBRID EXHIBITION



KOREA PACK

Korea Int'l Process & Packaging Exhibition









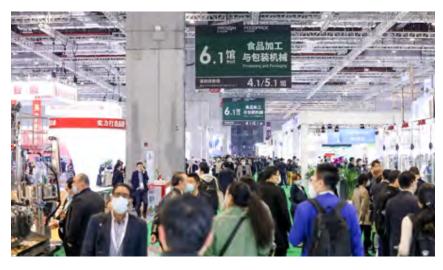
PROPAK CHINA 2021 TAPPING THE PROCESSING AND PACKAGING MARKET IN ASIA

rganised by Sinoexpo Informa Markets (former UBM Sinoexpo), ProPak China 2021, the 27th International Processing & Packaging Exhibition, will take place at the National Exhibition Convention Center Shanghai (NECC) from 23 to 25 June 2021. This premier processing and packaging event will help advanced manufacturers to tap the flourishing market in China and Asian region.

A GRAND EVENT FOR PROCESSING AND PACKAGING INDUSTRIES IN ASIA

With the participation of leading exhibitors of processing and packaging industry, ProPak China is the best place to find out which machines, systems, technologies and applications are made possible by the latest developments. It provides solutions on food processing, packaging, labelling, weighing, printing, logistics, automation, containers and materials to food, beverage, dairy, confectionery, bakery, condiment, FMCG, pharmaceutical, personal cosmetic, home appliance and 3C, e-commerce, courier and other industries.

Alongside with specialized trade fairs including FoodPack China, Health Ingredients China, Food Ingredients Asia-China, Healthplex and Natural & Nutraceutical Products China, Starch Expo, and iCorrugated, ProPak China 2021 will build an ideal platform for industry professionals to connect with their target markets, showcase their brands to decision makers and network with the industry buyers that matter



most. The joint exhibition is estimated to attract more than 2,000 leading exhibitors and 100,000 trade buyers from across the globe and cover a record-breaking floor space of 170,000 sqm.

A WORLD OF PIONEERS FROM ACROSS THE GLOBE

In the last edition of ProPak China, it gathered a number of leading international companies from around the world, including Belgium, Canada, China, Finland, Germany, Italy, Japan, Netherlands, Singapore, Switzerland and USA who provided abundant choices and total solutions for improving productivity, reducing cost and solving production challenges including: Aetna, AFA, Apollo, BIHAI, BOSTAR, Fortress, DAJIANG, DANENG, Elin, Fuji Machinery, GURKI, Hengli, Huituo, HUALIAN, Ishida, JCN, Koch, Kunshan Dahe, METTLER TOLEDO, Strapack, PRE-CISE, Speed, Sutian, Soontrue, Thermo Fisher, WEIKEDA, Wenzhou Dajiang, Wolf, Wuhan Rentian, Xiaoteng, Yamato, Yilong, Yuedong, Yusheng, Zhejiang Brother, Zhongheng, Zhongya and more. Meanwhile, the show captured high attention of professional buyers and end users from all industry sectors who are from food, beverage, dairy products, FMCG, medicine, e-commerce, daily chemical and other terminal fields.

ProPak China is organised by Sinoexpo Informa Markets (Former UBM Sinoexpo), a joint venture between Shanghai Sinoexpo International Exhibition Ltd and Informa PLC. As the world's leading exhibitions organizer, Informa Markets creates platforms for industries and specialist markets to trade, innovate and grow. Its portfolio is comprised of more than 550 international B2B events and brands. With our expertise in operating events and exhibitions and global network in a diverse range of industries, we will help you unlock new opportunities.

Speak to us today and get your business part of the big picture.

For more information, please visit **www.propakchina.com**





The 27th International Processing and Packaging Exhibition

23-25 June 2021 | NECC (Shanghai), China

Concurrent Events:















The Premier Processing & Packaging Event for China

Exhibitor Profile



Food Processing Machinery



General Food Machinery



Packaging machinery



Industrial robots and automation



Packaging materials and products



Labelling technology/ Flexible packaging



Logistics packaging

Space booking:

Ms. Vicky Leung (Asia & China) Sinoexpo Informa Markets

T: +86 131 4389 6198

E: vicky.leung@imsinoexpo.com

Mr. Andrea Boccellini (Worldwide) Informa Markets

T: +44 (0)78 669 18897

E: andrea.boccellini@informa.com

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www.propakchina.com

PACPROCESS & FOOD PEX MUMBAI – A COMPREHENSIVE EVENT FOR PROCESSING AND PACKAGING MANUFACTURERS

acprocess & food pex Mumbai the no.1 trade fair in India for Processing and Packaging will be held on 09-11-Dec 2021, Bombay Exhibition Centre, Mumbai with all **health** and safety standards.

As the world's leading event's organiser, Messe Düsseldorf India has developed a detailed set of enhanced measures to provide the highest levels of hygiene and safety at its events, providing everyone with reassurance and confidence they are participating in a safe and controlled environment.

Pacprocess & foodpex Mumbai aims to witnessed participation from over 200 exhibitors with representation from over 10 countries including from Germany, Italy, China, Singapore, etc., spread across 10000 sqm of exhibit space who will present their latest technology & innovations of machinery, materials, process control & testing, and automation for the processing & packaging market.

Part of the hugely successful Interpack pacprocess & food pex Mumbai is well supported by industry and is backed by international organizations and Indian associations.

Pacprocess & food pex India endeavors to analyze trends, forecast future developments and come up with viable solutions to help businesses thrive. It showcases the true potential of the processing & packaging industry for India.







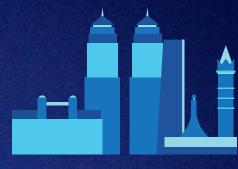


One Stop Destination for all Your PROCESSING & PACKAGING Needs



PROCESSING & PACKAGING

MEMBER OF INTERPACK ALLIANCE



09-11 DECEMBER 2021

BOMBAY EXHIBITION CENTRE MUMBAI



IN DÜSSELDORF **SENIOR PROJECT MANAGER**

Mara Thierbach

Phone: +49 211 4560 208 +49 211 4560 87208

JUNIOR PROJECT MANAGER

Joline Olbing

Phone: +49 211 4560 274 Fax: +49 211 4560 87274 Email: ThierbachM@messe-duesseldorf.de Email: OlbingJ@messe-duesseldorf.de

IN INDIA **SALES MANAGER**

Sharukh Khan

Phone: +91 22 6678 9933, Ext. 104 Email: pacprocess@md-india.com

Powered by



www.pacprocess-india.com









The key highlight of the show is its ability to reach out to various industries through one platform - food, dairy, beverages, personal care & hygiene, industrial goods, ecommerce, pharma, and cosmetics.

About Interpack Alliance

The new label interpack alliance spans all international events staged by Messe Düsseldorf under its Processing & Packaging portfolio. The interpack alliance addresses the target groups of food, beverages, confectionery and bakery, pharmaceuticals, cosmetics, non-food consumer goods and industrial goods in key emerging markets, focusing on different areas in each individual event. For more information visit:

www.interpackalliance.com/

About Messe Düsseldorf India

Messe Düsseldorf India is amongst the leading global players in the trade fair and event industry. Messe Düsseldorf India Pvt. Ltd. is a fully owned subsidiary of Messe Düsseldorf GmbH which is a global player both as a trade fair organizer and as a provider of trade fair related services for exhibitors and visitors. Since inception, the Messe Düsseldorf team in India is dedicated to closely work with both Indian as well as international partners in India.

To know more about, Messe Dusseldorf India, please visit:

www.md-india.com







EXHIBITION

2021-2022

SIGEP

15-17/03/2021 **RIMINI**



Fair for bakery, pastry, ice cream, coffee.

INTERSICOP

01-28/03/2021



Fair for bakery, pastry, ice cream, coffee.

SPS/IPC/DRIVES

data da definirsi **NUREMBERG**



Fair for electric automation.

mcTER

date to be scheduled



Exhibition on energy efficiency.

PROSWEETS

31/01-03/02/2021



Fair for the sweets and snacks industry.

BEER&FOOD ATTRACTION



Fair for beers, drinks, food and trends.

CIBUS

04-07/05/2021



Fair of food product.

MEAT-TECH

17-20/05/2021



Fair for the meat and ready meals industry.

FRUIT LOGISTICA

18-20/05/2021

BERLIN

Fair for fruit and vegetables.



MECSPE

10-12/06/2021

PARMA

Fair for innovations for the manufacturing industry.

VINITALY

20-23/06/2021



International wine & spirits exhibition.



22-25/06/2021

SÃO PAULO

Fair for product from packaging.

mcT COGENERAZIONE

30/06/2021

MILAN

Exhibition for applications of cogeneration.



SPS/IPC DRIVES/ITALIA

06-08/07/2021

PARMA

Fair for industrial automation sector.

LATINPACK

28-30/07/2021

SANTIAGO CHILE

International packaging trade fair.

MACFRUT

07-09/09/2021

RIMINI

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

MIDDLE EAST 2021/22

GULFOOD

21-25/02/2021

DUBAI

Fair for food and hospitality.

GASTROPAN

03/2021

ARAD

Fair for the bakery

and confectionery industry.

PROPAK ASIA

17-20/06/2021

BANGKOK

Fair for packaging, bakery, pastry

PROPAK VIETNAM

28-30/07/2021

SAIGON

Fair for packaging, bakery, pastry.

FOOD BEV TEC

01-05/09/2021

TEHRAN

Fair for food,

beverage&packaging technology.

ANUTEC

15-17/09/2021

NEW DELHI

Fair for the food&beverage industry.

DOHA

Fair of Hospitality and HORECA

DIAZAGRO

22-25/11/2021

ALGERS

Fair for companies of the agro-food sector.

WOP DUBAL

11/2021

DUBAI

Fair for for fruits and vegetables.

GULFOOD MANUFACTURING

Fair for packaging and plants.

GULFHOST

07-09/11/2021

DUBAI

Fair of hospitality.

PACPROCESS

09-11/12/2021

Fair for product from packaging.















07-09/11/2021













EXHIBITION

2021-2022-2023

COSMOPROF

09-13/09/2021

BOLOGNA

Fair for the cosmetic production chain.



28-30/09/2021

NUREMBERG

International packaging trade fair.

DRINKTEC

04-08/10/2021

MONACO

Fair for the beverage and liquid food industry.

HISPACK

19-22/10/2021

BARCELLONA

Technology fair for packaging.

HOST

22-26/10/2021

MILANO

Fair for bakery production and for the hospitality.

IBA

23-28/10/2021

MONACO

Fair for the bakery and confectionery industry.

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

SIGEP

22-26/01/2022

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

ProWein

19-23/03/2022

DUSSELDORF

International wine & spirits exhibition.

PROSWEETS

31/01-03/02/2022

COLOGNE

Fair for the sweets and snacks industry.

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.

SIAL

15-19/10/2022

PARIS

Fair on food products.

SUDBACK

22-25/10/2022

STUTTGART

Fair for bakery and confectionery industry.

BRAU BEVIALE

08-10/11/2021

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

04-10/05/2023

DÜSSELDORF

Fair for packaging, bakery, pastry.

RUSSIA CHINA

UPAKOVKA

26-29/01/2021

MOSCA

BEVIALE MOSCOW

23-25/03/2021

MOSCOW

MODERN BAKERY

23-26/03/2021

MOSCOW

BAKERY CHINA

27-30/0'4/2021

SHANGHAI

INPRODMASH

14-26/09/2021

KIEV

AGROPRODMASH

04-08/10/2021 **MOSCOW**

UPAKOVKA

25-28/01/2022/

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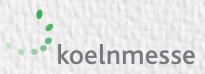
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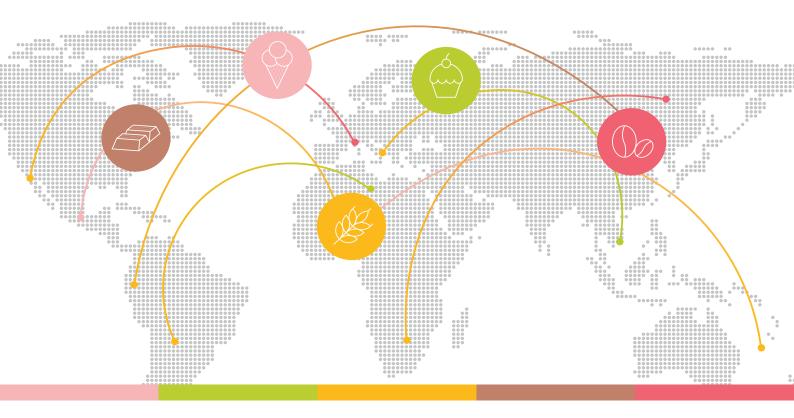
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