

FOOD

PROCESSING

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n° 9-2023

เครื่องจักร ระบบปฏิบัติการอัตโนมัติและการบรรจุภัณฑ์สำหรับอาหารและเครื่องดื่ม

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BBM is a leading player in the maintenance, dismantling, installation, start-up, and conservative relocation of bottling lines for the main food & beverage companies

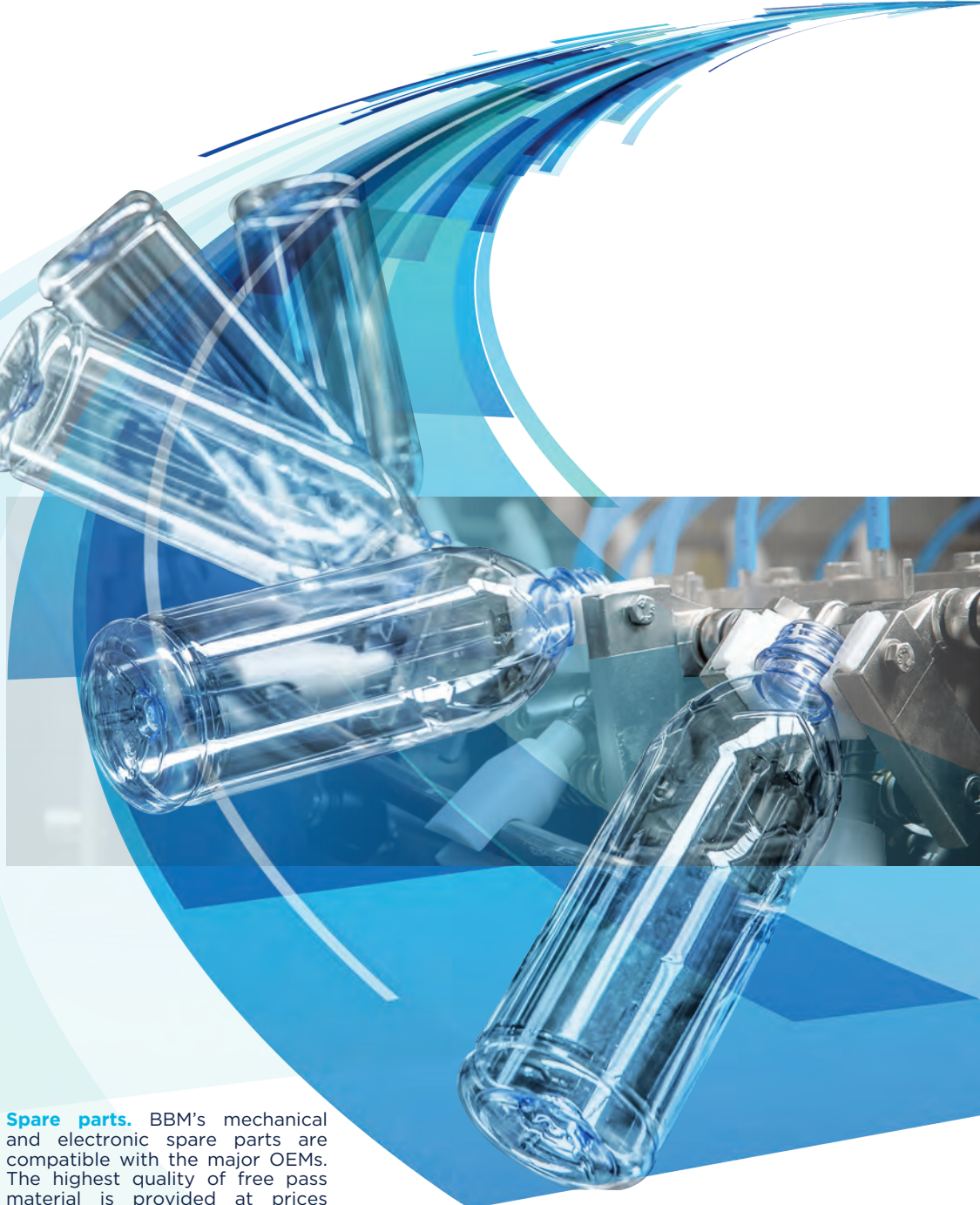
Our portfolio includes innovative upgrades to make the most of the machine's potential and save up to 35% in energy consumption.

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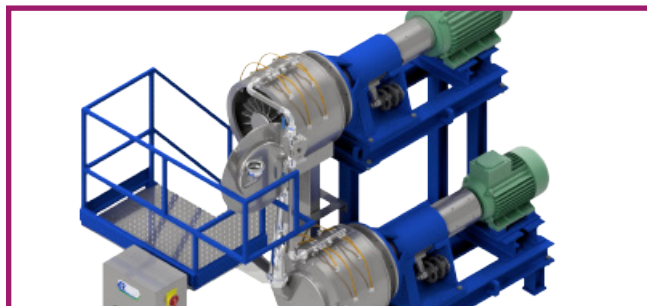


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PRESERVING

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BOTTLING

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PACKAGING AROUND THE GLOBE

— edited by S. V. Maffizzoni

In the world of food, packaging is one of the most delicate and essential steps in the production process for a number of reasons (food preservation and shelf life, visual appearance of the finished product, etc.).

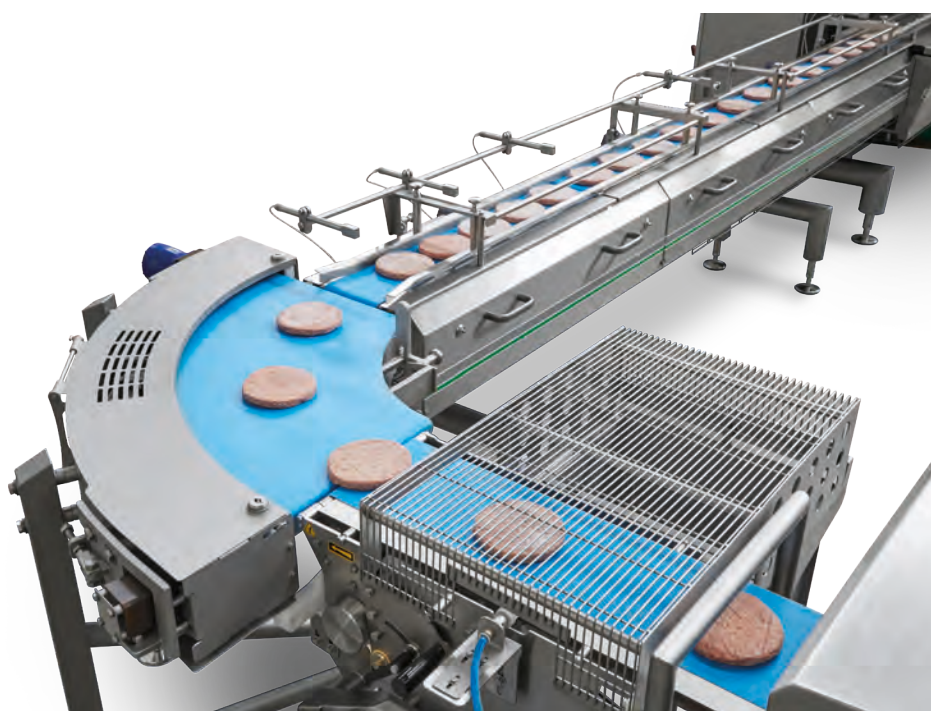
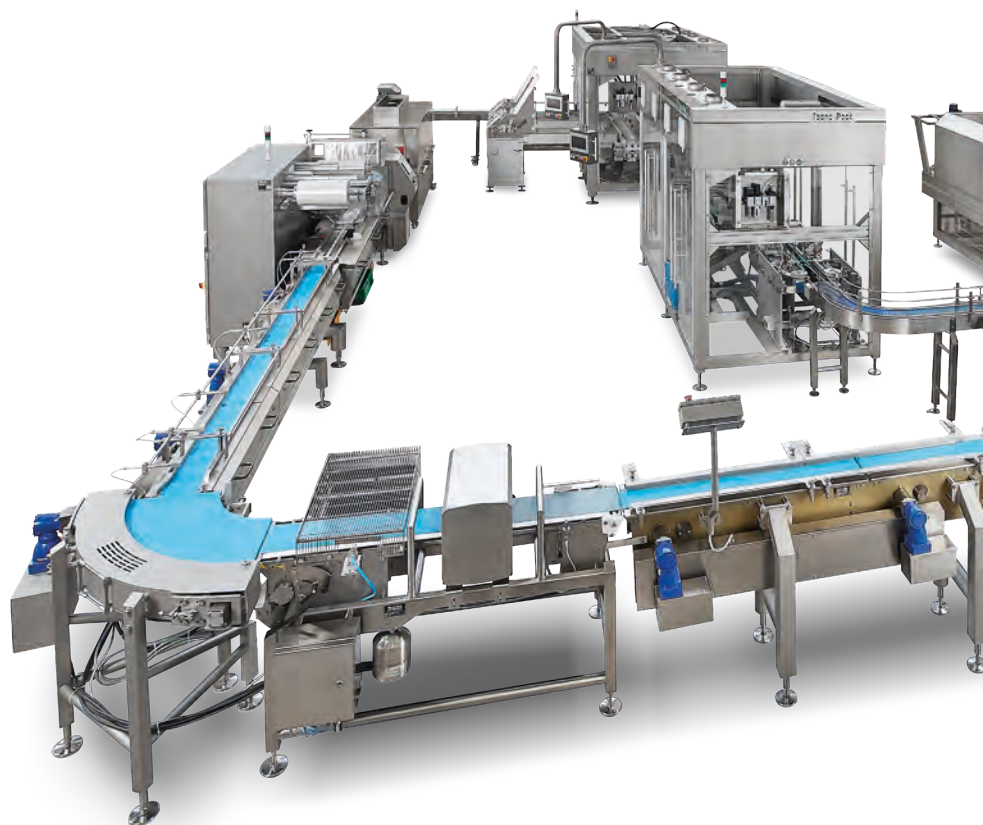
A food company - whatever its sector: bakery, fruit and vegetables, pasta, meat or anything else - needs to rely on a packaging system able to ensure safety, continuity of preservation, quality and flexibility.

Therefore, it is very important to choose the right partner. Relying on a trusted, serious and experienced partner guarantees a fruitful relationship, without nasty surprises, just like in life...

Thanks to a great team of reliable and experienced professionals, who closely follow each client all the way through, TECNO PACK can boast of long-standing relationships with clients all around the globe.

For all these reasons, small, medium and big food companies, such as Barilla, Granarolo, Kraft and Nestlé, have entrusted TECNO PACK with the packaging of their production.

The Group provides a complete service dealing with the product from the process line to the pallet, ensuring a complete and constant assistance, also during the start-up of a plant. Its extensive experience allows TECNO PACK





Food preservation is the primary objective of the food industry: packaging is the final stage of the production process, a key factor in ensuring the product quality and safety



การบรรจุหีบห่อทั่วโลก

แก้ไขโดย S.V. MAFFIZZONI

การถนอมอาหารเป็นขั้นตอนอันดับแรกของอุตสาหกรรมอาหาร การบรรจุภัณฑ์เป็นขั้นตอนสุดท้ายของกระบวนการผลิต ซึ่งเป็นกระบวนการที่สำคัญอย่างหนึ่งในการรับรองคุณภาพและความปลอดภัยของผลิตภัณฑ์

ในโลกของอาหาร การบรรจุภัณฑ์เป็นหนึ่งในขั้นตอนที่ละเอียดอ่อนที่สุดด้วยหลายเหตุผล และเป็นขั้นตอนที่สำคัญอีกขั้นตอนหนึ่งใน

กระบวนการผลิต เช่นเดียวกับการถนอมอาหารและอายุผลิตภัณฑ์ สภาพของสินค้าที่มองเห็นได้เมื่อกระบวนการแปรรูปเสร็จสิ้นสมบูรณ์

บริษัทผู้ผลิตอาหารในทุกภาคส่วน เช่น ในธุรกิจเบเกอรี่ ผลไม้และผัก พาสต้า เนื้อสัตว์ หรือไม่ว่าจะเป็นธุรกิจอื่นใดก็ตาม จำเป็นที่จะต้องพึ่งพากระบวนการบรรจุภัณฑ์ที่สามารถรับประกันความปลอดภัย ความต่อเนื่องของการเก็บรักษาคุณภาพ และความยืดหยุ่นในการสายผลิต ดังนั้น การเลือกคู่ค้าที่เหมาะสมจึงเป็นสิ่งสำคัญมาก การพึ่งพาพันธมิตรที่เชื่อถือได้ จริงจังและมีประสบการณ์ เป็นการรับประกันความสัมพันธ์ที่ผลิดอกออกผล ปราศจากเรื่องแย ๆ ขวนหัวเสียจะว่าไปก็เหมือนกับในชีวิตของคนเรานั้นแหละ...

จากประสบการณ์ของทีมงานมืออาชีพที่น่าเชื่อถือ และการติดตาม เอาใจใส่ลูกค้าแต่ละรายอย่างใกล้ชิด ตลอดระยะเวลาที่ผ่านมา TECNO PACK สามารถบอกเล่าถึงความสัมพันธ์อันแน่นแฟ้นที่มีมายาวนานกับลูกค้าจากทั่วทุกมุมโลก ด้วยเหตุผลทั้งหมดทั้งมวลนี้เอง ที่ทำให้บริษัทผู้ผลิตอาหารราย



to operate in any type of food sector as well as to satisfy even the most demanding requests coming from companies in need of complex solutions or tailor-made designs.


Being able to solve complicated technical issues and to handle difficult situations with attention and determination, TECNO PACK is the ideal partner.

The price-quality ratio, the after-sales service and the spare parts service are just some of the strengths of the Group, which boasts highly qualified and committed staff in every department, beginning with the management.

The constant research and the technological evolution have helped creating highly flexible and long-lasting packaging lines.

TECNO PACK offers extremely high-quality packaging lines, modified atmosphere packaging solutions - suitable for the food industry as well as for other sectors such as the biomedical and pharmaceutical industries -, vertical and horizontal packaging lines, vacuum packing, plastic or cardboard trays filling, end of line systems, case packing, pick-and-place lines and palletizing systems.

One of the latest line is FP100E, a high-speed horizontal wrapping machine.

Whenever there is a need for packaging, there is TECNO PACK. 

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ย่อย ไปจนถึงผู้ประกอบการขนาดกลางและขนาดใหญ่ เช่น BARILLA, GRANAROLO, KRAFT และ NESTLÉ ต่างก็ให้ความไว้วางใจแก่ TECNO PACK ในการบรรจุผลิตภัณฑ์สินค้าของบริษัทที่ได้กล่าวไปแล้วนั้น

TECNO PACK ให้บริการเกี่ยวกับผลิตภัณฑ์ตลอดทุกขั้นตอน ตั้งแต่การเริ่มสายการผลิตไปจนถึงสินค้าผลิตแล้วเสร็จพร้อมวางในพาเลท ซึ่งรับรองได้ว่า จะได้รับความช่วยเหลือที่สมบูรณ์แบบและไม่ขาดตกบกพร่อง เช่นเดียวกันกับระหว่างการตั้งโมเดลธุรกิจ ด้วยประสบการณ์อันกว้างไกลของ TECNO PACK ที่สามารถดำเนินธุรกิจในทุกประเภทของอุตสาหกรรมอาหาร การตอบสนองความต้องการพิเศษของผู้ประกอบการ เช่น ความต้องการการแก้ปัญหาที่ซับซ้อน หรือการดีไซน์ในลักษณะเฉพาะ

ความสามารถในการแก้ปัญหาทางเทคนิคที่ยุ่งยาก และการจัดการกับสถานะที่ยากลำบากด้วยความเอาใจใส่และความมุ่งมั่น ทำให้กล่าวได้ว่า TECNO PACK เป็นพันธมิตรทางธุรกิจในอนาคต เมื่อเปรียบเทียบราคาและคุณภาพการบริการหลังการขาย และการบริการอะไหล่ สิ่งเหล่านี้ก็เป็นอีกหนึ่งในจุดแข็งของทาง TECNO PACK พร้อมด้วยพนักงานทุกคนทุกแผนกที่มีความมุ่งมั่นและความชำนาญสูง ซึ่งเริ่มมาจากระบบการจัดการที่ดี การวิจัยและการพัฒนาทางเทคโนโลยีอย่างต่อเนื่อง มีส่วนช่วยสร้างกระบวนการบรรจุภัณฑ์ที่มีความยืดหยุ่นและมีอายุการใช้งานยาวนาน

TECNO PACK นำเสนอสายการบรรจุภัณฑ์ที่มีคุณภาพสูง โดยระบบ MODIFIED ATMOSPHERE PACKAGING (MAP) หรือการบรรจุแบบปรับบรรยากาศ เพื่อยืดอายุการเก็บรักษาผลิตภัณฑ์ ซึ่งเหมาะสำหรับการใช้งานในอุตสาหกรรมอาหาร ตลอดจนอุตสาหกรรมในภาคส่วนอื่น ๆ เช่นการแพทย์และเภสัชกรรม ทั้งในสายบรรจุภัณฑ์แนวตั้งและแนวนอน การบรรจุสุญญากาศ การบรรจุลงในภาชนะพลาสติกหรือกระดาษแข็ง ระบบโปรแกรมประมวลผล EOL การบรรจุหีบห่อ สายการหยิบยกขึ้นงานและระบบการวางพาเลทไม้หนึ่งในสายการผลิตล่าสุดก็คือ เครื่องท่อนวนนอนความเร็วสูง รุ่น FP100E

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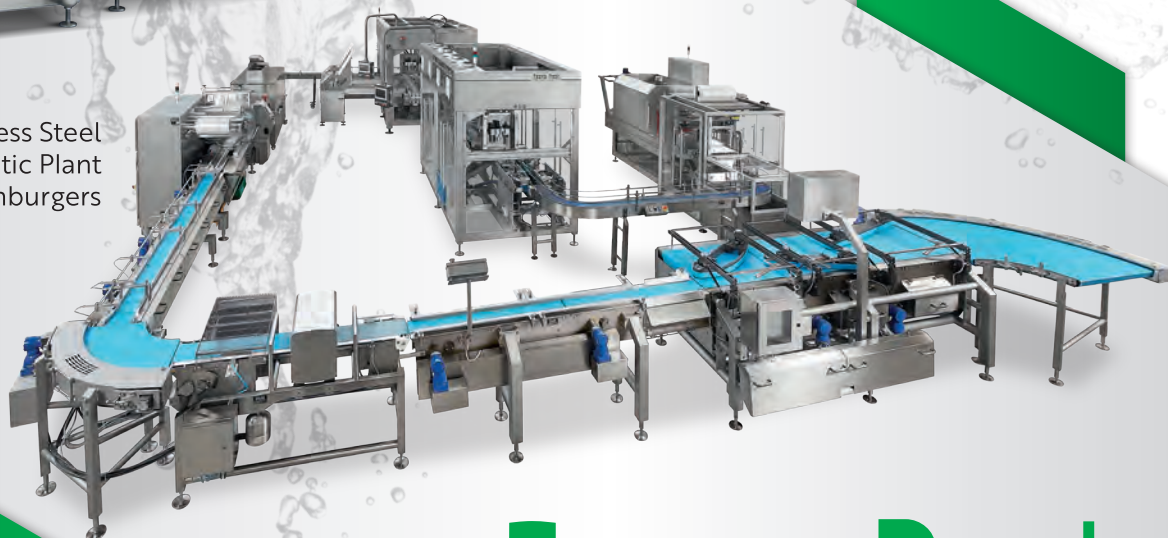
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The thirty years' experience of its founders, a team of 140 people, a dense and wellorganised sales network consisting of the branch offices Makro UK for the United Kingdom and Makro North America in Saint-Philippe (Montreal) for Canada and the USA, together with agents and representatives in the most important countries throughout the world, plus an impeccable assistance and spare parts service guarantee satisfaction of every labelling need and constant expansion on all the most important international markets.

MAKRO LABELLING: เครื่องแปะฉลากในอนาคต

ความเป็นโมดูลาร์, ความยืดหยุ่นและการออกแบบเน้นการใช้งาน คือหัวใจสำคัญของบริษัทที่มีจุดเด่นในการพัฒนานวัตกรรม. นี่คือนวัตกรรมที่เราจะได้รับจากบริษัทอิตาลี MAKRO LABELLING, บริษัทนานาชาติผู้เปลี่ยนเทรนด์เครื่องแปะฉลากในตลาด เครื่องดื่ม อาหาร ยา และผงซักฟอก ประสบการณ์มากกว่า 30 ปี และทีม 140 คน ที่มีเครือข่ายการขายอันกว้างขวาง และแบ่งออกเป็นสาขา MAKRO UK สำหรับประเทศสหราชอาณาจักร และ MAKRO NORTH AMERICA ที่เมือง SAINT-

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MAK machine configuration with HS2 adhesive units



Example of configuration with cold glue stations



MAK machine configuration with HS SLIM adhesive units



Cold glue stations



Adhesive stations (SLIM)



Roll-Feed stations



Hot-melt stations

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Makro Labelling srl

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

The range includes labellers able to process from 1,500 to 50,000 bottles per hour, applying up to five labels per bottle and available in wet glue, hot melt, self-adhesive and combined versions. For companies with limited production requirements, the MAK 01, MAK 02 and MAK 1 labellers provide speeds of up to 12,000 b/h with mechanical or electronic rotation of the bottle plates. With special applications and able to cope with production speeds of up to 50,000 b/h, the MAK 2, 3, 4, 5, 6, 7, 8 and 9 labellers, on the other hand, satisfy the needs of medium to large companies. The range includes a high speed self-adhesive labeller with reel winders and non-stop system enabling production to continue at maximum speed even during reel changes and a combined labeller to apply the fiscal guarantee seal. Thanks to a special, patented paper delivery system, the new MAK AHS2 self-adhesive labelling module responds to the need for faster, more precise machines. It guarantees a linear speed of 100 metres a minute at a label pitch of 20 mm.

For the high volume PET market, such as the water and soft drinks

PHILIPPE (MONTREAL)ในประเทศแคนาดา และมีตัวแทนจำหน่ายในอีกหลายประเทศสำคัญทั่วโลก เรามีระบบหลังการขายที่คอยดูแลทุกความต้องการของลูกค้าและการปรับเปลี่ยนสิ่ง อะไหล่

ความเร็วที่หลากหลายตั้งแต่ 1,500 จนถึง 50,000 B/H

เครื่องติดฉลากของเราสามารถทำงานได้ต่างๆความเร็ว 1,500 ไปถึง 50,000 ขวดต่อชั่วโมง, แปะฉลากได้ 5 ฉลากต่อขวด และยังสามารถใช้กาวเปียก กาวร้อน กาวติดด้วยตนเอง แล้วก็สามารถผสมผสานชนิดกาวได้ เครื่องรุ่น MAK 1 สามารถทำงานได้สูงสุดด้วยความเร็ว 12,000 B/H ด้วยกลไกการหมุนแผ่นตั้งขวด ด้วยการตั้งค่าแล้วติดตั้งตัวเสริมเฉพาะทางเครื่องสามารถทำงานด้วยความเร็วมากกว่า 50,000 B/H

ส่วนเครื่องติดฉลากรุ่น MAK 2, 3, 4, 5, 6, 7, 8 AND 9 ได้ถูกออกแบบมาเพื่อสนองความต้องการของโรงงานระดับกลางจนถึงโรงงานขนาดใหญ่ เครื่องติดฉลากของเรามีหลายรุ่น หนึ่งในรุ่นที่โด่งดังของเรามีระบบเปลี่ยนถ่ายฉลากโดยไม่ต้องลดความเร็วและหยุดการทำงาน ด้วยเทคโนโลยีที่จดสิทธิบัตรของเรา อีกหนึ่งเครื่องที่ต้องพูดถึงคือเครื่องใหม่ของเรารุ่น MAK AHS2 ด้วยระบบกาวติดด้วยตัวเอง ที่ช่วยเพิ่มความเร็วความแม่นยำในการทำงาน. รับประกันความเร็ว 100 เมตรต่อนาทีต่อม้วนฉลาก 20 MM.





sector, Makro Labelling has developed the MAK Roll Feed series of rotary labellers: The 6,000 b/h to 40,000 b/h production speed and use of wrap-round plastic labels on a reel with hot melt application guarantee maximum economic benefits in the production process. The modularity of the machine also allows the roll feed unit to be replaced with a hot melt unit for pre-cut, wet glue or self-adhesive labels. In common with the entire Makro range with the Vision Control system to verify the quality and correctness of the packaging and manage rejects: two new inspection systems - RAPTOR [Rapide to Orientate] and A.L.I.C.E. [Advanced Label Inspection and Control Environment], which guarantee high performance, less production rejects and the highest finished product quality.

CLeap (Concept Leap)

Makro In 2017 created and presented a new concept of labelling machine using longstator linear motor technology, setting a new and revolutionary standard. Cleap's concept has led to the creation of the new Inline, which, in addition to high precision and labelling speed, also offers the advantage of no format changeover: in just a few minutes the operator is ready to start production again. Its versatility and production flexibility make it ideal thanks to its small footprint. 


www.makrolabelling.it

สำหรับการติดฉลากบนขวด PET เช่นน้ำขวด เราได้พัฒนา ระบบ เครื่องติดฉลาก MAK ROLL FEED SERIES ROTARY: ทำงานในความเร็ว 6,000 B/H จนถึง 40,000 B/H ใช้ฉลากแบบห่อพลาสติกใช้ระบบความร้อนในการแปะเพื่อลดต้นทุนในการผลิต ความเป็นโมดูลาร์ของเครื่องจักรทำให้สามารถปรับเปลี่ยนระบบการจ่ายฉลากเป็นฉลากติดกาวร้อน กาวเปียก หรือกาวที่ติดด้วยตนเอง

ภายใต้วิสัยทัศน์ของบริษัทเราได้ใส่ระบบตรวจสอบการแพ็คเพื่อที่จะรองรับและดูแลทุกการทำงานและเช็คคุณภาพสินค้า : ระบบตรวจสอบที่เราได้สร้างขึ้นมามี 2 รูปแบบ - RAPTOR (RAPIDE TO ORIENTATE) และ A.L.I.C.E. (ADVANCED LABEL INSPECTION AND CONTROL ENVIRONMENT), รับประกันประสิทธิภาพในการทำงาน รักษาคุณภาพและลดการผิดพลาด.

CLEAP (CONCEPT LEAP)

บริษัท MAKRO ในปี 2560 ได้สร้างและนำเสนอแนวคิดใหม่สำหรับโครงการเครื่องติดฉลากด้วยการใช้เครื่องยนต์ LONGSTATOR LINEAR MOTOR ในการสร้างมาตรฐานใหม่ในวงการห่าก้า

CLEAP'S แนวคิดใหม่นี้ได้ก่อให้เกิดเครื่องจักรรูปแบบใหม่ที่สามารถแปะฉลากด้วยความเร็วสูงความแม่นยำมากยิ่งขึ้น เทคโนโลยีการตั้งค่างระบบแบบใหม่ที่ใช้เวลาเพียงไม่กี่นาทีในการเริ่มเครื่องจักรทำงานต่อ ความยืดหยุ่นของเครื่องตัวนี้ในการผลิตทำให้เป็นตัวเลือกที่ดีสำหรับผู้ผลิตทุกท่าน 

www.makrolabelling.it



“ THE ECOLOGICAL TALENT OF PACKAGING ”

As consumers increasingly demand greater sustainability from the goods they purchase, companies respond by paying closer attention not only to the product itself, but also to its packaging. According to recent data from the Immagino Observatory, this shift in focus can be observed on product labels, with a subsequent impact on consumer behaviour.

The label serves as the first “physical” point of contact between companies and consumers, satisfying the latter’s need for thorough, accurate, and transparent information. As such, the label plays a crucial role in guiding consumer choices. With regard to sustainability, labels now provide more information than ever before about the product as a whole: from its raw materials to its possible uses, all the way to the environmental sustainability and recyclability of its package. Essentially, the packaging also talks about itself, assuming a new and influential role in consumers’ decision making processes. To put it simply, when consumers perceive an environmentally conscious approach, sustainability, recyclability, and overall green practices, they are more inclined to make a purchase. This significant aspect is something that companies are increasingly aware of.

The Key Words of Sustainable Labelling

According to a recent study by the Immagino GS1 Italy Observatory, consumers unquestionably prefer packaging that is attentive to sustainability, and certain key words are able to capture their attention more than others. The study (conducted twice yearly) is based on approximately 130,000 fast-moving consumer goods (FMCGs), comparing the products in the Immagino database as of June 2022 with those available for sale in large retail outlets as surveyed by NielsenIQ. The numbers are extremely telling: as of June 2022, the Immagino Observatory’s products generated over €41 billion in sell-out, equal to 82.3% of what was sold by hypermarkets and supermarkets in the overall FMCG market in Italy, with more than 133,000 products.



by Elisa Crotti





SUSTAINABLE Let's start with the general results: the "sustainability" claim has spread to a significant portion of the market (+15.3%), arriving at 4,024 products, and has exceeded €3 billion in sell-out, with an annual growth of 5.5%. For the food sector, the categories most involved in this trend are those of traditional biscuits, supermarket ice cream, and packaged pastries. Meanwhile, in the non-food sector, the Cleanright brand of dish and laundry detergents went into free fall, with sales dropping by 1.7%. The same trend could be seen for products with a sustainable cleaning certification, which experienced a 33.2% drop in sales over the 12-month period (laundry detergents, fabric softeners, and dish soaps). As for CO2 emissions, labels that claim a reduction have experienced an 11.9% increase in sales, a sign of the market's appreciation.

PLASTIC-FREE or LESS PLASTIC Plastic remains a hot issue for the market, thanks to European regulations that want to limit its use and the concern of consumers who are highly aware of both the issue and the need to stop its widespread use. Thus, the turnover of the 1,625 products sold in packaging that claims "less plastic" has grown by 9%, surpassing €1.2 billion and driven by a 19.4% increase in the selection of products and by a rise in cured meats, seed oils, and shelled nuts. This trend is also confirmed by the increased sale of products with compostable packaging. Here, however, the positive trend can be seen not only in sales, with a two-digit growth of 10.7%, but also in the increase in products, which has soared by 25.2%, thanks to the switch from plastic to compostable single-use tableware. A significant increase in turnover was also experienced by

products that advertise the use of Master-Bi resins, with more than €62 million in sell-out (+12.9%) and with single-use tableware still playing a pivotal role.

Recyclability as True Value

RECYCLABILITY Recyclability is the major trending topic of sustainable packaging. So much so that fully 40.2% of the products being monitored mention it on their label (as compared to 37.5% the previous year). In other words, two out of five monitored products feature an indication that can help consumers to correctly recycle the product's package. However, it must be noted that the absence of this information does not necessarily mean that the package is not recyclable. This is true primarily for glass, whose disposal is not mentioned, despite it being a 100% recyclable material.

Returning to the more than 52,000 products whose packaging indicates recyclability, in more than 85% of cases the package is completely (4.9%) or mostly (82.3%) recyclable, with a figure that has improved slightly as compared to the previous 12 months (+0.8%). During the same period, the number of products sold in non-recyclable packaging decreased, now down to 3.5% as compared to 3.8% in June 2021.

The sectors most involved in indicating the recyclability of their packaging as a true value are those from the freezer section (ice creams and frozen foods), followed by fresh produce. The number of non-food products with packaging that mentions recyclability is decidedly lower, but still growing: 39.5% in household care, 24.1% in personal care, and 23% in pet care. Beverages too are at the bottom of the list, with the same percentage as pet care, but this is justified by the significant presence of glass containers which, as mentioned earlier, often lack indications regarding recyclability.

RECYCLABLE MATERIALS What is the packaging of the more than 52,000 products monitored by Immagino, on which the recyclability is indicated, made of? The largest share is made up of packaging composed of a single material, accounting for 38.2% of the products (a reduction of 1.4% as compared to the previous year). The remaining 61.8% of items have packaging made up of multiple materials, in most cases two (35.1%) or three (19.8%).

When it comes to sustainable packaging, the consumer response is loud and clear. The sale of products that are entirely or mostly recyclable is undoubtedly greater, for both commercial brands and for the top twenty, followed by smaller producers. This is an unquestionable indication that consumers strongly approve of companies' green policies and that small choices can make a big difference.

NEW STANDARDS, NEW TECHNOLOGY

In the recent years we entered the era of sustainable packaging. New procedures and technologies help our market to raise its standards and as packaging machinery designer and builder we implemented new instruments to face new challenges. The need for flexibility, traceability, sustainability and attention for consumers gave us the opportunity to improve our offer.

Simple and hygienic

Universal Pack machines are built to guarantee the highest hygienic level in the simplest manner. The R&D department has designed and developed automatic CIP systems for cleaning the inner parts of dosing systems.

As a matter of fact, these systems ensure the full equipment cleaning without the need for disassem-





bling. These solutions are aimed to reduce machine downtime by providing ready-to-work spare units. All cleaning systems are designed and built abiding by EHEDG guidelines and 3-A sanitary standard.

The next hygienic level available implies Ultraclean technology, equipped with laminar flow to prevent contamination of the product area by isolating the dosing and forming groups from the external environment.

The hygienic proposal is also extended to the packaging: decontamination and sterilization lamps ensure the highest hygienic level of the laminated film.

Traceability and certifications

We uniquely code every single component, keep full track of it and provide documentation certifying its compliance with Pharmaceutical and Food industry regulations. An essential list includes for instance: certificates of all materials and parts in contact with the product, welding certificates, calibration certificates and parts full traceability. The provision goes beyond the latter certificates for proving the components quality and compliance, as it stretches to further documents concerning the line construction and effectiveness. The list goes on with IQ (Installation qualification), OQ (Operational qualification), PQ (Performance qualification), FDS (Functional design





specifics), HDS (Hardware design specifics) and Risk analysis, FAT and SAT ad hoc protocols.

For the planet

Our non-stop research in reducing the packaging industry carbon footprint resulted in streamlined machinery design for packing recycled, recyclable and compostable laminates. LCA (life cycle assessment) is used to measure the environmental impact of our products and identify optimal ways to reduce it. It is a 360° analysis that goes beyond the mere packaging produced and involves every step of the packaging machinery production process. We develop our solutions shoulder-to-shoulder with the main global film suppliers and test them in agreement with major multinational companies in order to provide them with a turn-key solution able to produce eco-packages.

Universal lab

Over 30 years of scientific research. Our in-house laboratory was built to always ensure the most sustainable and efficient packaging solution. The research in Universal Lab allows us to optimize machine design, efficiency and reliability by studying the most significant properties of products and newly developed laminates. That's why we are ready to pack any product using the latest eco-laminates in the market and always looking out for the development of new materials.

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. 🏠

www.universalpack.it





“MELTING POT FOR NEW IDEAS”



“It finally feels like a normal trade fair again!” – That was the consensus among exhibitors and visitors at this year’s FACHPACK, which has just closed following a successful three-day event. About 32,000 trade visitors, about one-third from outside Germany, took advantage of the opportunity to learn about the latest trends and innovations at the stands run by the 1,154 exhibitors, and to discuss pressing packaging issues with the experts. This year’s key theme, “Transition In Packaging”, captured the spirit of the times. “Even if the overall situation is not easy for many companies right now, the European packaging sector at FACHPACK proved extremely innovative and solution-oriented,” says Heike Slotta, Executive Director Exhibition at NürnbergMesse, summing up the event. The visitors to FACHPACK also found POWTECH, which was held in parallel, highly interesting: Almost a quarter of those attending said they were interested in the products and services at the Lea-

ding Trade Fair for Powder & Bulk Solids Processing and Analysis. FACHPACK will take its normal scheduled break in 2023 and will return again in 2024.

“Trade fairs are melting pots for new ideas and make the future tangible,” says Slotta. “Of course, given the pandemic, the war in Ukraine, rising energy costs and inflation, the near future is going to be anything but rosy. But that is precisely why we need to talk about how we intend to shape the transition.

To borrow the jargon of the consumer goods industry, the transition itself has become a fast-moving commodity since sustainability and digitalization have picked up speed, and consumer expectations and the overall situation are constantly changing.”

Visitors from about 90 countries

FACHPACK covered a comprehensive range of products from the entire packaging process chain, from packaging materials and machines to printing



and processing, logistics systems and services. Visitors to FACHPACK travelled to Nuremberg from 89 countries, mainly in Europe. After Germany, the highest numbers of visitors came from Austria, Italy, Poland, Switzerland, the Netherlands, Czech Republic, France, Turkey and Slovenia. The international contingent this year grew to about 32 percent, compared to 29 percent in 2021.

Industry professionals: 85 percent decision-makers

The results of a visitor survey by an independent institute confirmed that more than 90 percent of the trade visitors were happy or very happy with the products and services in the exhibition halls.

Eighty-five percent of the trade visitors said they were involved in making the purchasing and procurement decisions in their respective businesses.

More than half had a management position. The visitors came mainly from the food and beverage, pharmaceutical and medical, cosmetics, chemical, electronics and automotive, retail, packaging and logistics industries.

German Packaging Award and Gold Awards presented

On the first day of FACHPACK, the German Packaging Institute (dvi) announced the winners of the Gold Awards for this year's German Packaging Award. The six best innovations for 2022 came from the categories of Economic Efficiency, Sustainability, Digitalization, Packaging Machines and Young Talents. Also celebrated were 32 innovative solutions that were recognized with the German Packaging Award in August. For further information and photos, please go to: www.verpackungspreis.de

Increased revenues for packaging manufacturers

Packaging manufacturers saw an increase in production and revenue in 2021, as illustrated by the latest figures from the Gemeinschaftsausschuss Deutscher Verpackungshersteller (Joint Committee of German Packaging Producers, GADV). The bulk of production was represented by paper and cardboard packaging, while plastic packaging accounted for the highest production value.

About 19.6 million tonnes of packaging materials were manufactured in 2021, which equates to a 4.8 percent increase in production volume. Production value increased significantly, by 10.9 percent, to approximately EUR 35.8 billion in 2021. As in previous years, plastic packaging accounted for the largest share of production value at about 44 percent, while paper and cardboard represented the largest share by volume of packaging materials, at about 49 percent.

Strong export performance for packaging machines

The packaging machinery sector, which has a strong export focus, is also currently being slowed by adverse conditions and crises affecting production and the global economy.

Based on the export volume achieved in the first half of the year, combined with a good order book, a small increase in production is still expected for 2022.

According to the VDMA Food Processing and Packaging Machinery Division, the production volume for packaging machinery increased by 4.6 percent in 2021, to EUR 7 billion.

Exports by the approximately 300 manufacturers rose to EUR 5.922 billion in 2021 (previous year: EUR 5.673 billion), which is only slightly below the previous record volume achieved before the Covid-19 pandemic.

The value of exports accounts for 84 percent of the production volume. The largest buyers of German packaging machines have traditionally been the EU countries, ahead of North America and Asia. In terms of buyer countries, the USA is well ahead of China, France and Poland. Global foreign trade in packaging machinery totals almost EUR 22 billion, with the highly innovative German industry having occupied the top position (currently about 26 percent) ahead of Italy for a number of years.

Save the date: FACHPACK will take its normal scheduled break in 2023 and will be held again at the Exhibition Centre Nuremberg from 24 to 26 September 2024. 🏛️



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ROL: WE EXTRUDE IDEAS FOR YOUR FUTURE

ROL was founded in 1984 in Forlì, northern Italy, to meet the increasing demand for laminates and coextruded sheet for thermoforming in the packaging sector.

With 30 employees, six extrusion lines, a slitter rewinder, and a laminator/coating machine (solventless), we process PET, PS, and PLA by extruding foils that are then wound into reels with an external diameter ranging from 200 mm to 1200 mm, thickness ranging from 130 µ to 2300 µ, and strips from 80 mm to 1050 mm.

The production takes place at two sites and generates a turnover of 16 million euros.

Going green with our sheets. 'We extrude ideas for your future' is the promise we make to our customers, and we keep that promise by offering new eco-friendly materials like recycled PET. Sustainable sheets made from recycled PET (rPET) perfectly match our commitment to offering the highest quality and environmentally friendly products. Our new extrusion line, with its decontamination technology, allows us to produce food-grade PET sheets using 100% recycled post-consumer material that meets food-grade standards such as EFSA and FDA.

Among our products is PLA, a bio-based polymer derived from natural resources. This biodegradable and compostable bioplastic allows for a significant reduction in the carbon footprint compared to oil-based plastics. ROLPLA is an extruded PLA sheet suitable for thermoforming and



ideal for fresh food packaging and all biocompostable packaging applications.

Here are four good reasons why ROL is your go-to partner: our expertise and efficient manufacturing process enable us to meet increasingly demanding customer needs.

When we receive a technical support request, our staff are promptly deployed directly to the customer's site.

Our customers are the driving force behind our growth and

improvement, and we cater to the needs of both small and large businesses.

ROL is registered in the Environmental Managers Register, offering industrial customers a collection service to pick up post-production film waste and related secondary packaging materials, including pallets and cores, for reintroduction into the production cycle. 🏠

ROL



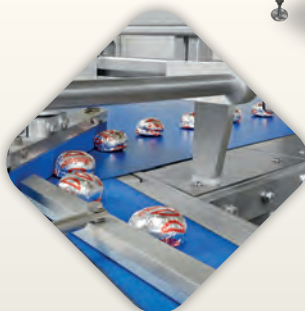
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“FOOD LABELING: BETWEEN REGULATIONS AND TECHNOLOGICAL INNOVATIONS.”

Food labeling is of fundamental importance to ensure the safety and transparency of products. Companies are using technologies such as blockchain, AI, QR codes, and sensors to improve product traceability and quality.

Food labeling has become a central issue in contemporary society. The quality of food and food safety are distinctive elements of European culture. Food labeling allows consumers to have clear and transparent information about the products they purchase, as well as ensuring compliance with current regulations.

In this article, we will examine the main rules governing food labeling and the technological innovations available to companies to improve production and control processes.



by [Walter Konrad](#)



images: unsplash.com

The regulatory framework

The regulations on food labeling are based on Regulation (EU) No. 1169/2011 of the European Parliament and of the Council, known as FIC (Food Information to Consumers). This regulation establishes the mandatory information to be included on the label, such as the product name, list of ingredients, expiration date, storage conditions, allergen indication, and nutrition table.

The health ministries of the various countries are the entities responsible for controlling and monitoring compliance with regulations on food labeling, including the prohibition of unfair and misleading commercial practices.

Technological innovations in the food industry

Food companies are using new technologies to improve product traceability and ensure compliance with current regulations. Among these, we find:

- 1- Blockchain: This technology allows for the creation of a secure and unalterable digital record of transactions along the production chain. In this way, companies can guarantee the origin and quality of the ingredients used, offering consumers greater transparency.
- 2- Artificial intelligence (AI) and machine learning: The use of advanced algorithms and automatic learning systems allows for real-time analysis and monitoring of product quality, and the detection of any anomalies or irregularities in the labels.
- 3- Smart labels and QR codes: The adoption of interactive labels and QR codes allows consumers to access detailed information about the product and its production chain simply by using a smartphone.

These solutions offer a more complete and personalized experience for the customer, who can make more informed purchasing decisions.

- 4- Internet of Things (IoT) and sensors: The use of connected devices and advanced sensors along the production chain allows for the collection and real-time monitoring of data, improving resource management and reducing waste. For example, sensors can be used to monitor temperature during the transport and storage of products, thus ensuring the safety and quality of food.
- 5- 3D printers for labels: 3D printing allows for custom labels for each product, with greater flexibility and a lower incidence of errors. This technology can be particularly useful for companies that produce food in small batches or with specific characteristics, such as organic or gluten-free products.
- 6- Digital platforms and management software: The use of digital platforms and specific software for label management simplifies and speeds up the process of creating and revising labels. These tools can help companies comply with current regulations and prevent any penalties for non-compliant labels.

In conclusion, food labeling is a topic of great relevance, both from a regulatory and technological point of view. Companies in the industry must comply with the provisions in force, providing clear and complete information to consumers. At the same time, the adoption of innovative technological solutions can contribute to improving the quality, safety, and traceability of food products, as well as ensuring transparency and customer trust.





PERSPECTIVE

**PERSPECTIVE of NVC NETHERLANDS PACKAGING CENTRE on
Draft IENW/BSK-2022/263822 by Ms. VLWA Heijnen MSc.**



This PERSPECTIVE comprises three parts:

1. Introduction of association NVC and its position on packaging and environment
2. Analysis of packaging and environment over the period 2013-2022
3. Policy recommendations for the year 2023 and beyond



1. Introduction of NVC and its position on packaging and environment

Every second, the world packs some 320,000 products - and the world's population unpacks them later and in a different location. NVC was founded in 1953 and now unites over five hundred companies with an interest in continually improving packaging. The NVC membership includes retailers, packaging suppliers, machine suppliers, branded article manufacturers, pharmaceutical companies, companies in the chemical industry, packaging printers, co-packers, design agencies, recyclers, testing institutes, and so on.

NVC supports its member companies by providing them with up-to-date and reliable business information, by jointly carrying out innovation projects, by educating and training their employees in packaging and by 'matching' supply and demand in the market ('market support').

Specific to packaging and environment, these include the following activities:

- a. Inform member companies of global legislative and regulatory developments through the NVC Members-only Environment Regulations Guide MERGE
- b. The NVC Workshop Sustainable Innovation in Packaging (Live Online, so 100% interactive and participation possible from any location worldwide)
- c. The PUMA Project towards the end of packaging as an environmental problem (see the enclosed PUMA MANIFESTO and all background information at: www.nvc.nl/puma)
- d. Stimulating innovation in the sector by scouting new techniques and linking supply and demand through exhibitions, conferences and the NVC online Buyer's Guide

NVC works with a 'holistic' vision to improve the activity of packaging, obviously in the Netherlands but especially also on an international scale, given the structural developments in the actors involved in packaging, like the raw material suppliers, the packer-filler industry, the logistics and the retail.



NVC has played an active role in the development of European (CEN) standards in the field of packaging and packaging waste since 1994 resulting from the European Packaging and Packaging Waste Directive of December 1994. Thanks in part to NVC's initiative and its active role in the standards development itself, the world (ISO) standards in this area were published in 2012. Photo: the plenary meeting of the ISO working groups on 6 May 2011 in Atlanta USA at the Coca Cola headquarters.



The PUMA MANIFESTO has now been published in nine languages (Dutch, English, French, Italian, Korean, Japanese, Chinese, Spanish and Portuguese). The German-language edition will be published on Wednesday 3 May 2023 during the PUMA World Conference in Düsseldorf, Germany. From 4-10 May 2023, the world's largest packaging exhibition with more than 100,000 visitors will take place there: the interpack2023. NVC will promote the results of the PUMA World Conference there from a dedicated stand (ENB/03) at the Main Entrance North.

NVC is not a 'vertical' trade association, like, for example, FNLI (the umbrella organisation of the food industry in the Netherlands) or CBL (the trade association of Dutch supermarkets) or NRK (the federation of plastics and rubber manufacturers). As such, NVC's primary tasks are therefore not to 'lobby' the central government to promote specific industry interests. However, we do appreciate maintaining good contacts in this regard.

NVC communicates 'across the board' via NVC News and in the various social media. The NVC website attracts about **sixty thousand unique visitors** annually (about 60% of whom are based outside the Netherlands). Some **thirty thousand professionals** and organisations located worldwide follow NVC daily via social media, especially Twitter and LinkedIn.

NVC is worried about the state of affairs regarding packaging and the environment in the Netherlands and worldwide in 2022. The first European legislation on packaging and packaging waste dates back to December 1994(!) and we are now on the eve of the year 2023. In the meantime, a proposal for follow-up legislation was launched by the European Commission on 30 November 2022: the Packaging and Packaging Waste Regulation PPWR.

As a society and industry, we unfortunately have to conclude that the problems have clearly not been solved over the past 29 years. On the contrary, they seem to have actually gotten worse. Why is this? What can we learn from the past and how can we all do better in the future? How do we **end packaging as an environmental problem**? You can find this NVC basic position in our PERSPECTIVE on the Draft Decision of the Minister.

2. Analysis of packaging and environment over the period 2013-2022

The first significant European legislation on packaging and the environment dates from [December 1994: the European Packaging and Packaging Waste Directive](#). At that time, the Netherlands already had the Packaging Covenant, with the actor on the industry side towards the central government being the Stichting Verpakking en Milieu SVM. There came a Second Covenant in the Netherlands, with SVM.PACT (Project Administration Covenant Two) as the implementing organisation, and the European Directive was transposed into Dutch law in the year 1997.

With the Extended Producer Responsibility EPR comes a financing system for collection and recycling. After an 'interwar period' in which the central government started levying a Packaging Tax, [the Packaging Waste Fund Foundation StAV took office in the year 2013](#). In conjunction with - and paid for by - the StAV, several other foundations came into being, each of which started working in a subfield.

To be mentioned in this context is the [Knowledge Institute for Sustainable Packaging Stichting KIDV](#). This organisation has the Stichting StAV as its only client, with the mutual performance agreement being confidential. Over time, the pricing for specific materials (plastics) by Stichting StAV has been linked to whether or not they comply with Recyclechecks to be drawn up by KIDV. The operational relationship between Stichting StAV and Stichting KIDV is characterised by intensive personal ties (the former Stichting KIDV director is now Stichting StAV director).

To [address litter, the Stichting Nederland Schoon SNS](#) was set up. Its funding was originally linked to the moderated introduction of deposit fees on specific types of emptied packaging. April 2022, the Stichting StAV presented a plan to collect a whole range of 'deposit-fee sensitive' emptied packs (bottles, cans) through a large number of 'circular hub' collection sites. The plan did not include a public cost budget and went off the table soon after presentation.

Now, after a legal joust and a three-month delay, [deposit fees](#) will be introduced [across the full breadth of the relevant packaging spectrum on 1 April 2023](#). What are the costs going to be? The question also arises as to the usefulness of the continued existence of, or funding by, the Stichting StAV of the Stichting SNS.

Regarding the [Stichting Nedvang, a different corporate form is envisaged for the coming years](#): a Private Limited Company (BV). This raises the question of the (future) ownership structure, including the financial allocation of any profits generated by this BV.

StAV's internal organisation comes up for discussion in a report by ILT Inspectorate¹ which audited the accounts for the year 2019. The report contains damning conclusions

regarding the [limited financial, accounting robustness of the organisation](#), including the remarkable way the auditor approved the StAV financial statements for the year in question. The question is, whether these criticisms have now been addressed and durably covered by the Stichting StAV.

The substantiation of the rates used by the StAV Foundation is also unclear, with sudden rate changes (/increases) of up to +1000% occurring in recent years². There are concerns about the [unsatisfactory substantiation of the proposed rates](#) and about the possibility that the Stichting StAV, after having been granted the General Binding Declaration (AVV) by the Minister, has a free hand for five years to implement substantial and unexpected rate increases.

The accountability of the Stichting StAV and the policy structure it funds is also negatively discussed in a recent study by the University of Utrecht³. It analyses for various product categories, including packaging, the extent to which collection and recycling takes place in a transparent manner, with an unambiguous allocation of the various responsibilities. [The situation for the packaging sector is outlined as unfathomable.](#)

Finally, there are questions about the data available to the Stichting StAV in the context of its levies. To [what extent are the personal and business data of the Dutch industry paying the fees shared](#) with the Stichting KIDV, the Stichting Nederland Schoon and Nedvang BV - and then through these entities with third parties engaged by them (consultancies, lawyers, self-employed professionals, and so on)?

All in all, major concerns have grown at NVC over the past decade about the effectiveness of the policy structure around the StAV Packaging Waste Fund Foundation as set up in the year 2013 and legitimised by the central government. The concerns focus on two questions:

1. [What charges does the Stichting StAV want to charge, with what justification?](#)
2. [What environmental performance will be achieved by the Stichting StAV with these targeted levies?](#)

Question 1 has increased in importance now that there is talk of a possible tripling of the envisaged levy per Dutch company, while this was denied in so many words by a representative of Stichting StAV in an NVC members' meeting in early 2022. The foundation's draft multi-year budget is insufficiently conclusive. The foundation does not commit to the level of tariffs for the coming years. What will be the costs (revenues) of the introduction of deposit fees as of 1 April 2023? The basic organisational system costs (at €12.5 million a year equivalent to a workforce of 100 FTEs and significantly increasing) also lack substantiation.

¹ www.ilent.nl/actueel/nieuws/2022/07/08/afvalfonds-behaalt-recyclenorm-voor-2019-maar-de-onderbouwing-schiet-tekort

² www.afvalfondsverpakkingen.nl/nl/tarieven (other metals)

³ studenttheses.uu.nl/handle/20.500.12932/518



Question 2 is almost even more important, especially now that the definition of 'recycling' is changing. A look at the Model in the PUMA MANIFESTO makes this clear. In fact, the 2013-2022 period looked at the amount of Collect-Control and not at the amount of 'newly usable, circular' materials actually created via a material recycling Backend process. Also, it is fundamentally flawed to exclude energy aspects from Collect-Control and Backend processing.

Essential for sustainable decision-making is the elaboration of the Circular Materials Plan (CMP1) promised by the Minister to be published by mid-February 2023, including an analysis of the desired material flows in the context of the Circular Economy of the Netherlands.

The NVC Survey The future of the packaging recycling in the Netherlands certainly will take into account the insights of the CMP1. The results of the NVC Survey will be presented on 5 April 2023.

Finally, an [analysis of the timeframe leading up to the Draft AVV decision](#) over the past twelve months. In the spring of 2022, we communicated our concerns to the Stichting StAV and on 11 May 2022 we met with the management. We had constructive discussions with various industries, the policy department of the Ministry, the Inspectorate and several Members of Parliament.

A total of over hundred NVC member companies actively participated in one or more of the NVC member meetings on the topic. NVC attended the parliamentary debates of the

relevant Lower House parliamentary committee and actively shared the information with NVC member companies and the industry as a whole.

The Draft Decision with an intended entry into force of 1 January 2023, was published on 7 November 2022. Given the deadline for the submission of PERSPECTIVE by interested parties like NVC (six weeks, i.e. until 19 December 2022 at the latest) and the intended entry into force of 1 January 2023, [the Minister has only a week and a half to make a decision](#). This is questionable for a dossier with an impact of at least €2 billion in costs for business and - in our view, much more importantly - with an obligation to future generations to now actually start making an end to packaging as an environmental problem in the Netherlands and worldwide.

Based on the above, one conclusion must unfortunately be that the policy structure in place since 2013 to manage packaging collection and recycling has serious shortcomings anno 2022. This entails significant risks for the Netherlands society, both in terms of costs in an economically turbulent period and in terms of (not) meeting environmental targets in a world where environmental issues rightly need to be addressed.

The decision-making on Draft Decision IENW/BSK-2022/263822 by Ms. VLWA Heijnen MSc., Minister for Infrastructure and Water Management, regarding a General Binding Declaration AVV of the levies by the StAV Waste Fund Foundation (Stichting Afvalfonds Verpakkingen) is a [decisive benchmark](#) in the context of the above.

3. Policy recommendations for the year 2023 and beyond

With regard to the Draft AVV Decree, we submit the following recommendations for the Minister's consideration. Of course, the Minister is free to adopt them entirely, partially or not at all. In all cases, we would appreciate receiving a motivation and will actively share them with our member companies and the sector as a whole.

1. [Postpone your final Decision until 1 July 2023.](#)
2. [Include in your final Decision the insights from your CMP1 \(to be published mid-February 2023\) and ideally the results of the NVC Survey the future of the packaging recycling in the Netherlands 2023-2027 \(results known 5 April 2023\).](#)
3. [As a condition for a final Decision, ask the Stichting StAV for an analysis addressing the years 2023-2027 of the budgeted costs in relation to the environmental results. This analysis should also include the impact of the various Stichting KIDV recycling checks on costs and environmental results to be achieved.](#)
4. [In your final Decision, require the Stichting StAV to pre-determine rates for all years covered by the AVV.](#)
5. [As part of your final Decision, request disclosure of the performance agreement between Stichting StAV and Stichting KIDV including the annual reviews for the past years 2013-2022.](#)
6. [Engage Parliament prior to your final Decision, especially in the run-up to the public meeting of the Parliamentary Committee on IenW in the spring of 2023.](#)



Gouda, 14 December 2022
NVC NETHERLANDS PACKAGING CENTRE

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TAKING PAPER PACKAGING FORWARD: HENKEL AND UPM SPECIALTY PAPERS PRESENT RECYCLABLE, GREASE-RESISTANT PAPER SOLUTION

As brands seek more sustainable packaging options, new coating technologies for fibre-based packaging are unlocking the full potential of paper. At Interpack 2023, Henkel and UPM Specialty Papers presented two recyclable paper solutions created through a joint development between the two companies that push the performance of barrier papers to an unsurpassed level of grease resistance – offering a heat-sealable alternative to conventional plastic packaging. By combining Henkel coatings with UPM packaging papers, the innovative combined solutions provide fully recyclable alternatives for both food and non-food packaging applications.

At a dedicated Happy Hour at UPM Specialty Papers' Interpack stand, experts from Henkel and UPM presented a solution delivering heat sealability using Henkel's Loctite Liofol HS 2809-22 RE with UPM Asendo™ 90 g/m² paper and a solution that combined barrier coating Aquence EPIX BC 6134 and UPM Asendo™ Pro 90 g/m² paper to deliver barrier properties against grease alongside heat sealability. The jointly developed innovations ensure that these vital characteristics for packaging food and non-food items can be provided using paper. Henkel's paper coatings can be used on a variety of substrates and enable easy recycling and recovery of fibres to support a circular economy.

"At UPM Specialty Papers, we are working closely with innovative partners to create transformative solutions that reimagine the future of sustainable packaging," commented Mika Uusikartano, Senior Manager, Product Portfolio Management at UPM Specialty Papers. "Working alongside Henkel with a shared focus on creating sustainable alternatives, we have co-created a recyclable, heat-sealable packaging




New levels of grease-resistance: Henkel and UPM Specialty Papers launch jointly developed solution.



material that is compatible with existing packaging lines. By combining our respective expertise, we are jointly creating barrier paper structures and pushing their performance to an unsurpassed level of grease resistance, while providing converters with a tried and tested concept.”

“As the packaging industry and wider society work to take on urgent environmental challenges, it is essential that we collaborate across the value chain to rapidly deliver solutions. The solutions created with UPM – and successfully presented together at Interpack – embody this spirit of collaboration,” explains Christin Noack, Market Strategy Manager Europe at Henkel. “The creation of packaging and processes to effectively combine paper with barrier and heat seal coatings, required close collaboration with our partners at UPM over a lengthy joint development process to identify and optimize the right fibre-based substrate and coatings combination. Together, we are enabling paper to achieve unmatched barrier performance while meeting the demand for more sustainable packaging. These paper innovations provide packaging manufacturers with turn-key solutions to significantly reduce their own development time when bringing new products to market and we were delighted to see this solution so well received by visitors to Interpack.”

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With Consumer Brands, the company holds leading positions especially in hair care and laundry & home care in many markets and categories around the world.

The company's three strongest brands are Loctite, Persil and Schwarzkopf.

In fiscal 2022, Henkel reported sales of more than 22 billion euros and adjusted operating profit of around 2.3 billion euros.

Henkel's preferred shares are listed in the German stock index DAX. Sustainability has a long tradition at Henkel, and the company has a clear sustainability strategy with concrete targets.

Henkel was founded in 1876 and today employs a diverse team of more than 50,000 people worldwide – united by a strong corporate culture, shared values and a common purpose: “Pioneers at heart for the good of generations.”

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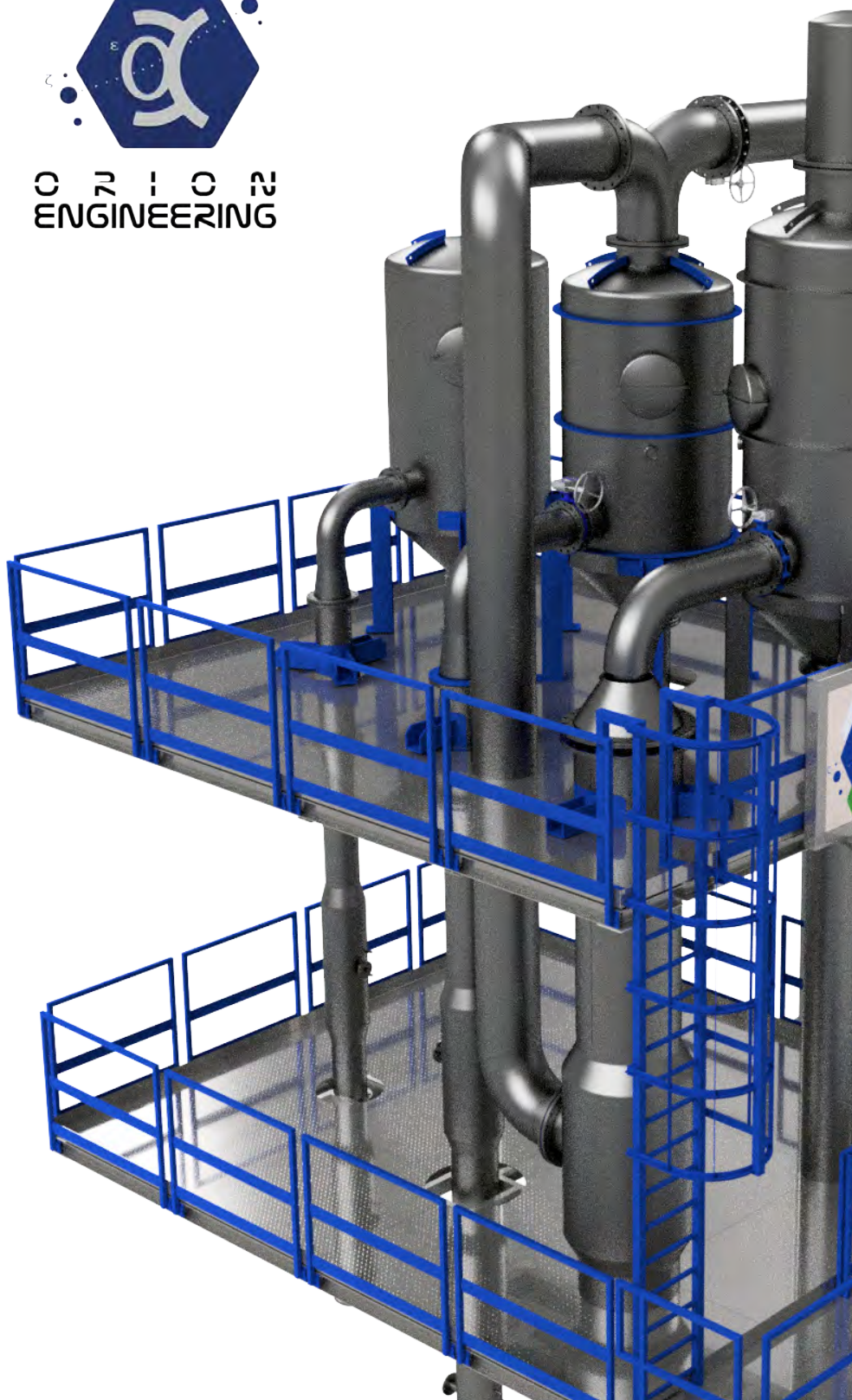
Its core business focuses on the development of tailor-made solutions and on the construction of machines and processing plants for the agro-food sector. At the level of sustainable innovation, Orion Engineering S.r.l. proposes solutions that can reduce the energy requirement and the environmental impact generated by agro-food production waste, in a logic of circular economy. We are a partner always ready to support you in every phase of your project with a multidisciplinary team-work of collaborators and experts in the sector, who will offer you a range of dedicated products and services from the development of the concept to its start-up.

Orion Engineering S.r.l. carries out ordinary and extraordinary maintenance activities on your systems with specialized technical staff. Predictive management of machinery maintenance can generate a 30% increase in the use of plants; in addition to savings of up to 40% in costs due to the shutdown of production lines and machinery.

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ORION ENGINEERING SRL

กระบวนการที่ออกแบบได้ สำหรับ โรงงานแปรรูปอาหารการเกษตร

ปริษัท ORION ENGINEERING S.R.L. ก่อตั้งขึ้นจากการทำงานร่วมกันของกลุ่มผู้เชี่ยวชาญที่มีประสบการณ์กว่า 25 ปีในภาคอุตสาหกรรมการผลิตอาหารและเครื่องดื่ม

ธุรกิจหลักของ บริษัท มุ่งเน้นไปที่การพัฒนากระบวนการแก้ไขที่ออกแบบได้และการก่อสร้างเครื่องจักรและโรงงานแปรรูปสำหรับภาคเกษตร - อาหาร ในระดับนวัตกรรมที่ยั่งยืน บริษัท ORION ENGINEERING S.R.L. เสนอแนวทางแก้ปัญหาที่สามารถลดความต้องการการใช้พลังงานและผลกระทบต่อสิ่งแวดล้อมที่เกิดจากขยะจากการผลิตอาหารการเกษตรในเชิงทฤษฎีของเศรษฐกิจหมุนเวียน (CIRCULAR ECONOMY) การจัดการการบำรุงรักษาเครื่องจักรเชิงคาดการณ์เป็นหนึ่งในวิธีที่เราใช้ในการนำหลักเศรษฐกิจหมุนเวียน สามารถเพิ่มการใช้พืชได้ถึง 30% นอกเหนือนั้นยังประหยัดต้นทุนได้ถึง 40% เนื่องจากการปิดสายการผลิตและเครื่องจักร

บริษัทพร้อมเสมอที่จะสนับสนุนกลุ่มลูกค้าในทุกขั้นตอนของโปรเจกต์ ด้วยการทำงานเป็นทีมแบบสหสาขาวิชาของทีมงานและผู้เชี่ยวชาญในภาคส่วนซึ่งจะนำเสนอผลิตภัณฑ์และบริการเฉพาะที่หลากหลายตั้งแต่การพัฒนาแนวความคิดจากจุดเริ่มต้น

ORION ENGINEERING S.R.L. เจ้าหน้าที่ด้านเทคนิคที่เชี่ยวชาญของเรา ดำเนินกิจกรรมการบำรุงรักษาระบบตามปกติและระบบพิเศษอื่นๆ ในรูปแบบที่ลูกค้าต้องการ การจัดการการบำรุงรักษาเครื่องจักรเชิงคาดการณ์ สามารถเพิ่มการใช้พืชได้ถึง 30% นอกเหนือนั้นยังประหยัดต้นทุนได้ถึง 40% เนื่องจากการปิดสายการผลิตและเครื่องจักร

การบำรุงรักษาของ ORION ENGINEERING S.R.L สามารถทำงานได้ทั้งในเครื่องของบริษัท ORION ENGINEERING S.R.L เอง และร่วมกับบริษัทอื่นๆ โดยใช้ชิ้นส่วนอะไหล่





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“Hub from the Earth to packaging”

As in any other sector, the entire agri-food chain follows specific rules and dynamics. Only a careful analysis of the interaction between its phases can give concrete results. Here sensitive factors come into play, such as tradition and excellence, values that need special attention. The cohesion of all activities (from harvesting to packaging) together with constant innovation making the final product a successful product.

For some time now, we have been studying a new agro-business development concept called “Hub from the Earth to packaging”. The aim is to combine environment, production and social aspects in development areas. Because we firmly believe that man and the environment must remain at the center of an ethical business. 

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ดั้งเดิมหรือปรับให้เข้ากับสภาพปัจจุบันของเครื่องที่ใช้งาน

- ความช่วยเหลือด้านเทคนิคในช่วงก่อนการผลิตและในช่วงระหว่างการผลิต
- รับประกันการจัดหาอะไหล่แท้และดัดแปลง

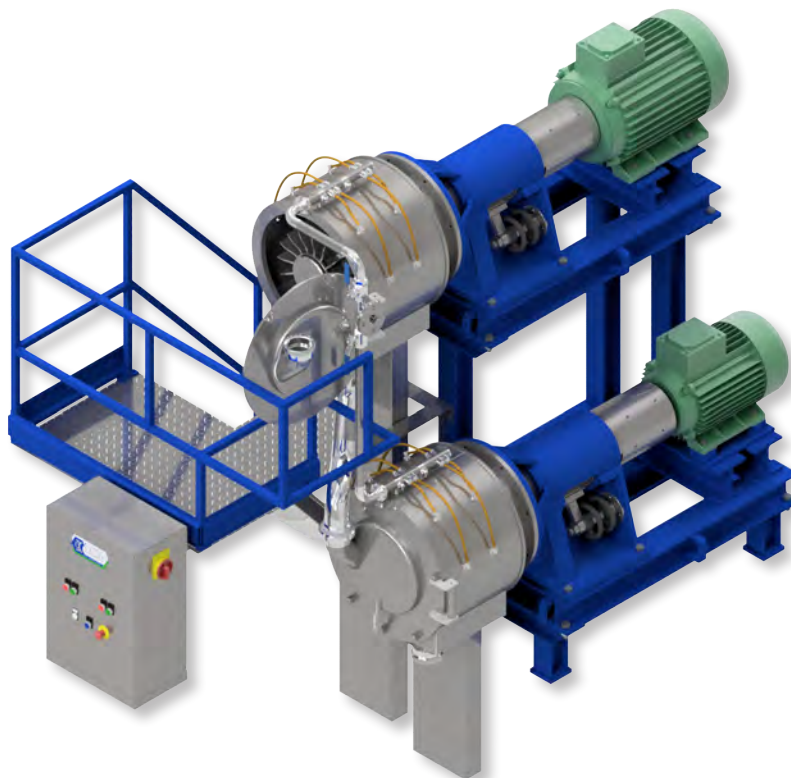
“ศูนย์กลางของโลกบรรจุภัณฑ์คือพื้นดิน”

อุตสาหกรรมการเกษตรมีแนวทางเช่นเดียวกับในภาคอุตสาหกรรมอื่น ๆ ห่วงโซ่อาหารเกษตรทั้งหมดเป็นไปตามกฎเกณฑ์ที่จำเพาะและตามหลักพลศาสตร์ การวิเคราะห์อย่างรอบคอบเกี่ยวกับปฏิสัมพันธ์ระหว่างขั้นตอนของห่วงโซ่นั้นที่สามารถให้ผลลัพธ์ที่เป็นไปได้ ยิ่งไปกว่านั้นปัจจัยที่ละเอียดอ่อนได้เข้ามามีบทบาทอีกด้วย อย่างเช่นการใช้ชีวิตหรือขนบธรรมเนียมประเพณีและความเป็นเลิศทางค่านิยมที่ต้องให้ความสนใจเป็นพิเศษ การประสานงานกันทุกขั้นตอน (ตั้งแต่การเก็บเกี่ยวจนถึงการบรรจุหีบห่อ) ร่วมกับนวัตกรรมที่คงที่ทำให้ผลิตภัณฑ์ขั้นสุดท้ายเป็นผลิตภัณฑ์ที่ประสบความสำเร็จ

ในตอนนี้เราได้ศึกษาแนวคิดการพัฒนาธุรกิจเกษตรแบบใหม่ที่เรียกว่า “ศูนย์กลางของโลกบรรจุภัณฑ์คือพื้นดิน”

จุดมุ่งหมายของแนวคิด “ศูนย์กลางของโลกบรรจุภัณฑ์คือพื้นดิน” คือการผสมผสานด้านสิ่งแวดล้อมการผลิตและด้านสังคมในพื้นที่การพัฒนา เพราะเราเชื่อว่าการทำธุรกิจที่มีจริยธรรมต้องคำนึงถึงปัจจัยมนุษย์และปัจจัยทางธรรมชาติ. 

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The citrus fruit pulp, as known, is a by-product of the food processing industry consisting of lemons and oranges waste subjected to the extraction of juice and essential oils. From a chemical-physical point of view, **the "pastazzo" is made up of residues of peels ($60 \div 75\%$), pulp ($30 \div 35\%$) and seeds (on average $0 \div 9\%$ depending on the quality of oranges and lemons undergoing transformation).**

Our mission as **ORION ENGINEERING S.R.L.** company is to make the reuse of this resource usable, through our technology under development, to give the opportunity not only to large industrial processing plants but to many others. The synergy of our growers and all the players involved in this supply chain is one of the keys of success of the process.

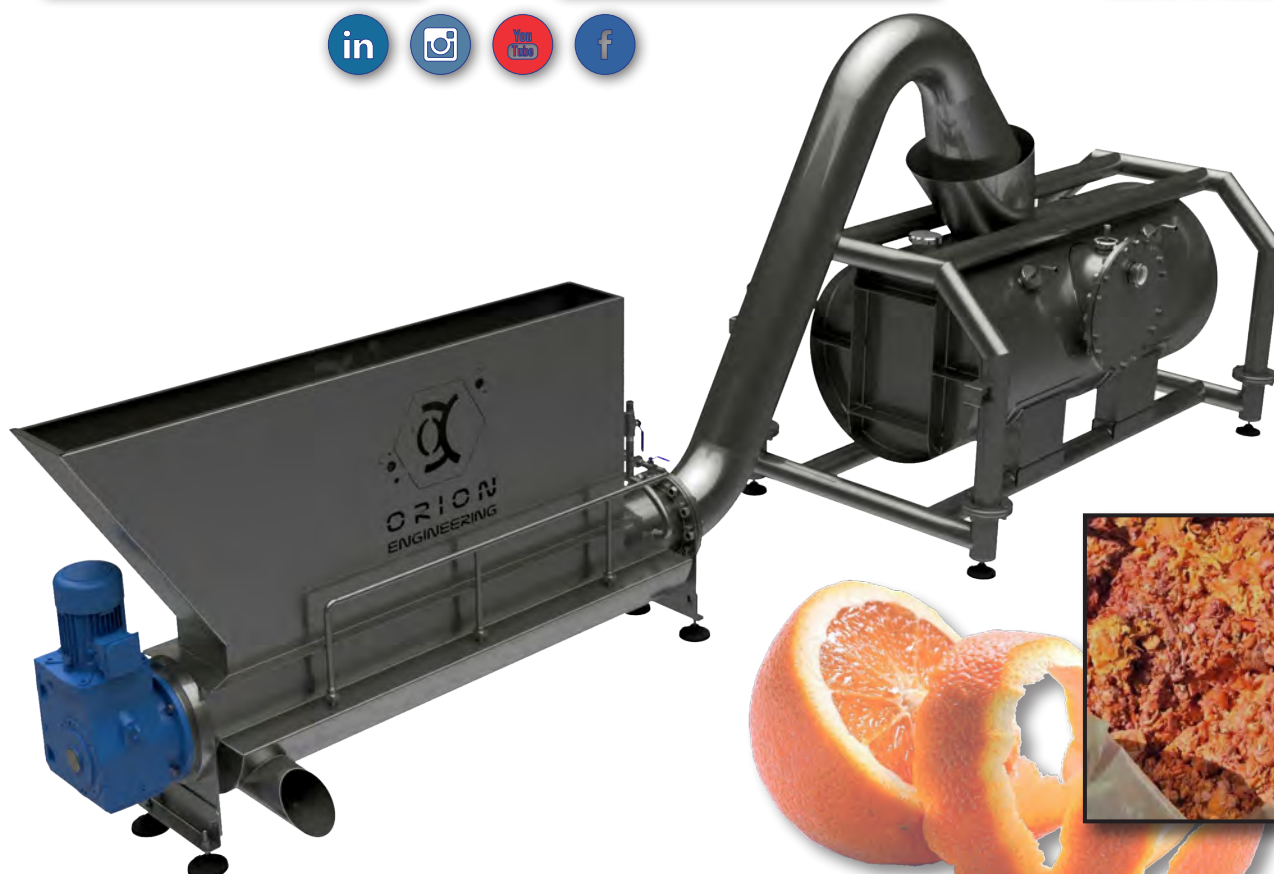


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NICOFRUIT is a registered trademark, owned and distributed by Frutthera Growers, an Italian company located in a town called Metapontino, in the Basilicata region, in the south of the Country. This area is well known and is ideally suited to the growing 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





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Full of Vitality



FOOD
processing



both workers and consumers' health, and technical and economic requirements of the most modern production systems.

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 by 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 they are sufficient to feed most of the company's energy needs.



From the very beginning, dynamism and long-term outlook have allowed the company to reach internal large-scale retailers and important market 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 of environmental awareness, Frutthera takes part in a lot of projects to achieve this target, organized by Universities, Research Institutions and many other reliable partners.

www.nicofruit.it

FRUIT PROCESSING INNOVATION

CERERE 6000

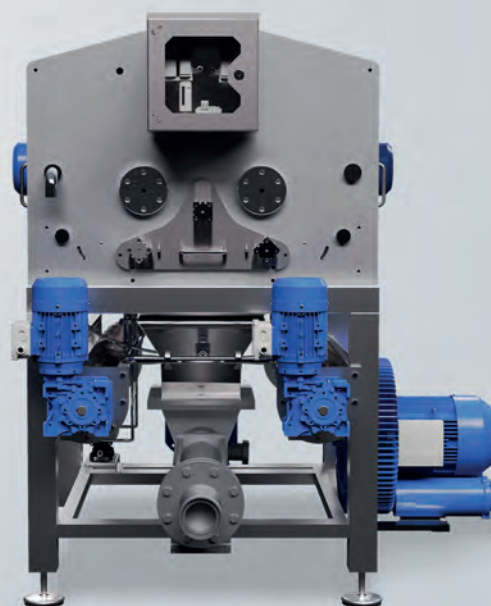
THE BANANA PEELER



2021 International FoodTec
Award in Silver by the
German Agricultural Society

UP TO 35.000 BANANAS/H...
BOOST YOUR PRODUCTIVITY

"CERERE" will guarantee you
a precise automatic peeling
system and excellent final
quality puree, processing of
the pulp in inert atmosphere,
constant productivity and
educed use of workforce.





TROPICAL FOOD MACHINERY: A GLOBAL LEADER IN THE FIELD OF FRUIT PROCESSING MACHINERY

Tropical Food Machinery is an international company with two headquarters in Italy and Brazil, leading in the global field of fruit processing machinery. The company currently has liaison offices in India, Costa Rica, and the Asia-Pacific and West African regions.

Thanks to its decades-long know-how, Tropical Food Machinery offers complete production plants for the industrial process of tropical fruit, producing finished products like natural juices, concentrated juices, nectars, purée, fruit in syrup, sauces, and jams.

The company's success over the years is certainly due to the pineapple processing plants:

TROPICALFOOD
MACHINERY

ทรอปิคัล ฟู้ด แมชชีน
เนอรี่ผู้นำระดับโลกใน
ด้านเครื่องจักรแปรรูป
ผลไม้

ทรอปิคัล ฟู้ด แมชชีนเนอรี่ (Tropical Food Machinery) เป็นผู้นำระดับโลกในด้านเครื่องจักรแปรรูปผลไม้ ที่มีสำนักงานใหญ่สองแห่ง ได้แก่ อิตาลีและบราซิล ปัจจุบันบริษัทมีสำนักประสานงานในอินเดีย , คอสตาริกา , เอเชีย-แปซิฟิกและภูมิภาคแอฟริกาตะวันตก





Tropical Food Machinery can boast dozens of active plants all over the world, with machines entirely designed around the pineapple juice extraction and that can guarantee a very high extraction yield and a high-level quality of the finished product.

Every production plant is designed and built in-house, the plants include the entire product processing, from the fruit receipt to the aseptic filling of pineapple juice or concentrate and can process 1 to 20 tons of fresh fruit per hour.

Tropical Food Machinery is also one of the main international players in the design and construction



จากความรู้ความเชี่ยวชาญที่สั่งสมมาเป็นระยะเวลานาน ทำให้พวกเราสามารถมอบเครื่องจักรผลิตและแปรรูปพืชที่ครบครันสำหรับกระบวนการทางอุตสาหกรรมผลไม้เขตร้อน ในการผลิตผลิตภัณฑ์สำเร็จรูป เช่น น้ำผลไม้จากธรรมชาติ น้ำผลไม้เข้มข้น น้ำผลไม้ ปูร์เร โซลิดผลไม้ ซอสผลไม้ และแยมผลไม้

โดยความสำเร็จของบริษัทในหลายปีที่ผ่านมา เห็นได้จากโรงงานแปรรูปสับปะรด ที่มีหลายโรงงานทั่วโลกที่ใช้งานเครื่องจักรแปรรูปของพวกเราอยู่ ด้วยเครื่องจักรที่มีการออกแบบมาเฉพาะเพื่อการสกัดน้ำสับปะรด และยังสามารถรับประกันผลผลิตจากการสกัดและคุณภาพที่สูงของผลิตภัณฑ์ที่สำเร็จรูป

เครื่องจักรแปรรูปผลไม้ทุกเครื่องถูกออกแบบมาเพื่อการใช้งานในโรงงาน ซึ่งประกอบไป





of plants dedicated to the processing of bananas. The most important progress in recent years has been the development of Cerere 6000, an automatic banana peeling system.

Cerere 6000 can guarantee precise automatic peeling, a processing of the pulp in an inert atmosphere with antioxidant treatment, a constant productivity and excellent final quality; the system can peel about 35,000 bananas per hour with a capacity of 6 tons of fresh fruit per hour and with a yield of extracted pulp of 60%.

For this reason, in 2021, the company received a prestigious award in technological innovation, being awarded the International FoodTec Award by the Deutsche Landwirtschafts - Gesellschaft - a German agricultural company - and its specialized partners. 🏆

www.tropicalfood.net

TROPICALFOOD
MACHINERY

ด้วยกระบวนการผลิต ที่เริ่มตั้งแต่การนำผลไม้เข้ามาไปจนถึงการบรรจุน้ำสับปะรดแบบปลอดเชื้อหรือน้ำสับปะรดเข้มข้น และสามารถแปรรูปผลไม้สดได้ 1 ถึง 20 ตันต่อชั่วโมง

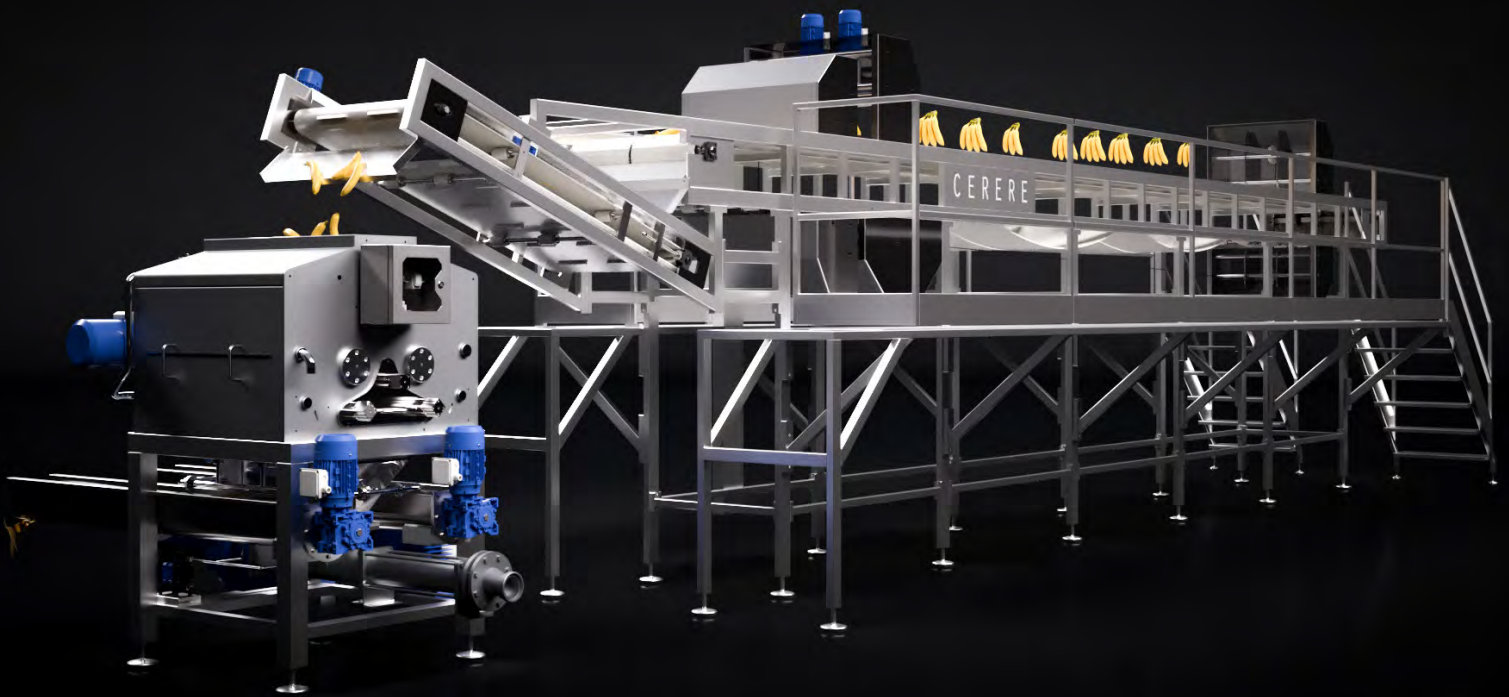
ทรอปิคัล ฟู้ด แมชชีนเนอรีเป็นหนึ่งในบริษัทระดับนานาชาติในด้านการออกแบบและสร้างโรงงานที่มีความโดดเด่นในเรื่องการแปรรูปกล้วย ความก้าวหน้าที่สำคัญที่สุดในช่วงไม่กี่ปีที่ผ่านมาคือการพัฒนา CERERE 6000 ซึ่งเป็นระบบปอกกล้วยอัตโนมัติ โดย CERERE 6000 สามารถการันตีการปอกเปลือกอัตโนมัติที่แน่นอนได้ กระบวนการผลิตเนื้อผลไม้ ในสภาพแวดล้อมของแก๊สเฉื่อย(an inert atmosphere)ทำให้สามารถเก็บรักษาสารต้านอนุมูลอิสระไว้ได้ มีปริมาณของผลผลิตที่คงที่และมีคุณภาพที่ยอดเยี่ยม ระบบสามารถปอกกล้วยได้ประมาณ 35,000 ลูกต่อชั่วโมง ด้วยกำลัง



การผลิตผลไม้สดได้ 6 ตันต่อชั่วโมง และมี
ผลผลิตเนื้อผลไม้ที่สกัดได้ที่ 60 เปอร์เซ็นต์

ด้วยเหตุนี้ ในปี 2021 บริษัทจึงได้รับรางวัลอัน
ทรงเกียรติในด้านนวัตกรรมทางเทคโนโลยี โดย
ได้รับรางวัล International FoodTec Award
จากสมาคมการเกษตรเยอรมัน (Deutsche
Landwirtschafts-Gesellschaft)
หน่วยงานและพันธมิตรที่มีความเชี่ยวชาญ
ทางการเกษตรของเยอรมัน 🏢

www.tropicalfood.net



ALL ABOUT FOOD: MAXIMUM EFFICIENCY FOR ALL PRODUCTION LINES!

Effective planning and controlling of processes are one of the most important things when it comes to fresh food. However, the reality is different: Many producers, importers or packing houses still work with manual entries in confusing Excel tables.

Planning errors are based on this and on insufficient networking of the systems. How can this be avoided?

Smart, individual, digital: Food production 4.0. with 30% efficiency increase

Although Industry 4.0 is a hot topic for decision-makers, there are only a few software providers dedicated to Food Production 4.0. An example of this digitalization offensive is the "PECS" tool. The Production Efficiency Control System covers the complete production control and networks plants and machines - regardless of the maker. Production lines are set up in just a few clicks, personnel planning is carried out in no time, and the performance data of the respective production is made available in a clear manner. Future orders and activities can be forecast to the minute. An average 30% increase in production efficiency can be expected.

Import & maturity planning: Preventing sources of error that often cannot be taken into in the daily business routine





Effective planning and controlling of processes are one of the most important things when it comes to fresh food.





Especially in the case of perishables, it's necessary to know exactly at which time which quantity is available at which location.

This is the only way to minimize over- or underdeliveries and the spoilage of goods.

Planning is usually based on Excel lists, which then have to be manually converted into orders in the ERP system. The fact that errors happen here can hardly be avoided. The changeover to a da-

tabase-based solution opens new potential.

The Fruit Import Planning System "FIPS" generates orders based on a planning quantity and considers live data such as sales quantities, spoilage, lead times, transport times and ripening cycles.

This guarantees supply chain traceability and detailed planning of ripening chamber utilization. Underdeliveries are immediately apparent and appropriate replacements can be provided at an early stage.

ERP: Making yields visible even before the harvest

In many ERP systems, a comprehensive data exchange and thus a continuous, clear planning and control is only possible to a limited extent. The step towards an industry-specific solution such

as "traceNET", which can map the processes of food-producing companies, is therefore obvious and necessary. Instead of manual entries, it works with automatisms that make everyday production easier.

The complex processes of food producers are mapped and optimised in detail. Crop and harvest reporting, ordering, packaging material planning, batch tracing and certificate management are just some of the comprehensive functions.

Individual software solutions for food producing companies, mobile solutions, real-time overview & business intelligence tools can be found at "activeIT-Software & Consulting GmbH". 🏢

www.active-it.at

activeIT 
Software & Consulting GmbH



© Photos: activeIT, SH Pratt, Depositphotos

“ SMART FARMING FOR RESOURCE OPTIMIZATION ”

Because it makes the best use of the most up-to-date technologies made available by research, Smart Farming, which is also being called Agriculture 4.0, is making it possible to transition to a new era, characterized by reducing waste to an absolute minimum through monitoring a myriad of essential parameters such as soil, plants, livestock, and environment.

Smart Farming, Precision Agriculture, Agriculture 4.0: those who believed agriculture to be one of the ancient practices of humans hardly affected by technological changes, will need think again. Indeed, there is a range of new technologies, which work right alongside traditional farming methods, and which are able to revolutionize the way the system functions and is perceived. From the plot to the plants, from the season to the single moment, today's technologies allow details to be focused on, without sacrificing the



by Elisa Crotti



image: unsplash.com



image: unsplash.com

vision of the whole. Target: optimize farming work and resources, by overcoming limits that have remained unchanged for millennia.

However, before delving into its implications, what exactly is meant by this concept should be made clear. In essence, Smart Farming means highly efficient and optimized management of agricultural activities on the farm. Made possible through IT, technology and innovation have transformed agriculture into a more efficient, less laborious, more precise, and simpler way of working the land. Indeed, Smart Farming significantly reduces assessment errors and hence cuts down on the waste of human and economic resources, especially water. In other words, with the Internet of Things (IoT), not only can time be saved, and innovative solutions be identified, relieving people from having to do many repetitive and routine jobs, IoT is now and will continue to be making it possible to interpret agriculture in completely new ways. These changes have already begun.

Smart Farming tools

With the objective of increasing the quantity and quality of crop yields, by optimizing the work required, Smart

Farming implements a series of technologies related to the different phases of production. In fact, there are sensors that can detect critical parameters by monitoring the earth, the water, the available light, the humidity, and temperature and that then can request any necessary corrections. Furthermore, through specialized software and connectivity programs, even using GPS and satellites, essential “dialogue” can be maintained among the instrumentation, the systems, and the farmers.

On the other hand, robotics is used on tractors, farm machinery and crop processing equipment, while at the same time, data analytics applications allow for the processing of all relevant data and the optimization of interventions.

This means having the right technologies to achieve a smart, efficient, and productive farm, at every level, based on clear decision-making processes.

Decision-making processes

Smart Farming can provide for data-driven decision making. And while it may be true that until very recently the farmer has been the final arbiter, who would weigh every choice made with skill, intuition, experience, and capacity for observation, today the volume of data available requires more sophisticated processing because it is considerably different.

Thanks to sensors or aerial detection by drones, real time monitoring of soil humidity can be displayed to predict, for example, the possible development of parasites, or to monitor the health of individual plants so that necessary corrective measures can be taken. In addition, the effectiveness of the pesticides and fertilizers used can be precisely analyzed, which leads to what is being called Precision Farming or Precision Agriculture.

Using Precision Farming, the plants or livestock can receive exactly what they need when they need it, because the systems’ applicative intelligence is essentially superior to the capacity of any single human being. Here lies the big difference when compared to traditional agriculture. The fact that decision-making is focused and detailed and may concern a single square meter or a single plant, rather than the entire field can change everything.

For example, when managing livestock, the level of well-being and nutritional needs of each animal can be monitored so that the correct quantity of feed can be supplied, and if necessary, by the analysis of health issues, the animal can be isolated. These are ultra-targeted procedures resulting in early intervention, upon



an initial reading which will save resources and time. A very important support in this sense is the application of drones, which are able to collect multispectral, thermal, and visual data.

When processed together, these data provide indices related to the health of the land, the number of shrubs, their height, foliage, reserves, chlorophyll, and many other important particulars that are useful for predictive purposes.

Farming Automation

Another Smart Farming advantage can be found in Farming Automation Systems, which are especially useful in intelligent greenhouses. Here, environmental parameters such as temperature and humidity, were normally monitored manually or through labor-intensive production, and control systems requiring high levels of energy output. Now, because of IoT based technologies manual operations can be eliminated entirely. Instead, sensors and platforms are employed to process the data gathered, which are then stored in the cloud, for further processing and checks without requiring the involvement of personnel.

The green meaning of Smart Farming

Not only does Smart Farming have important implications for large-scale farm management, but it has also been shown to work well in emerging agricultural systems such as family farming, organic crops, breeding special livestock, or in the conservation of high-quality varieties.

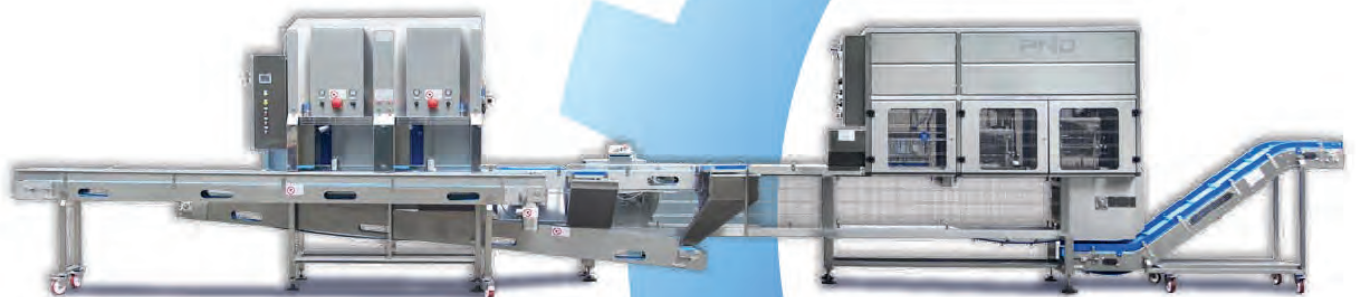
All of this is geared towards greater awareness, which helps to make agriculture more transparent for consumers. This is a real revolution, which will allow the reduction of the use of chemical crop protection products and pesticides, while enhancing productivity and improving food traceability, with all the ramifications that this entails in terms of safety.

Even the environment will be benefitted. Just imagine how valuable an optimized and aware water use management system would be. Therefore, application of Smart Farming is neither merely a farmer's whim nor just an "obsession". Instead, Smart Farming is turning out to be a truly great opportunity for agriculture, which already today must bear the weight of nearly 8 billion mouths to feed.

PND: FRUIT PROCESSING MACHINES

PND srl is continuing to follow its path of growth and specialisation, further consolidating its leadership in international markets, providing the ideal solution to its customers who are engaged in processing fruit by anticipating and supporting market trend, continuously designing and constructing new machinery.

PND is proud of its strong identity. This philosophy allows the company to only focus on the singular task of designing machines that will complement our customers goals. By focusing on the customer, we avoid the pitfalls of pursuing frenetic diversification. The only



Pineapple and Melon



COMPLETE
SEMI-AUTOMATIC LINE

MOD. **PL2D** | **SCMA**



PEELING



FINGERS



CHUNKS

ITALIAN PRODUCT 



recognition to which PND aspires is the satisfaction of its customers, who choose PND machines based on the substance of the proposed solutions.

By selecting PND as a business partner, the customer chooses a made-to-measure technology.

The experience that we have gained in the last 22 years of activity has allowed PND to make continuous innovation on machinery design and creating an extensive catalogue of machinery.

This includes advanced solutions for the processing of pears, apples, kiwis, oranges, grapefruits, lemons, pineapples, lemons, mangoes, strawberries and peaches, with all possible variations in order to meet the needs of companies processing fresh products in Fruit-Fresh-Cut,

the canning industry (fruit in syrup), and dried and frozen sectors.

Among our company's top products are Automatic and manual peeling, coring and cutting machines as well as treatment and prewash tanks for many varieties of fruits.

By choosing one of the 18 semi-automatic, manual or automatic machines manufactured by PND, customers re choosing a standard machine that can be tailored to your needs. All of PND's machines are designed to facilitate inspection, maintenance and cleaning tasks, and possible replacement of damaged items, thanks to the easy access to the corresponding parts.

For further info, please visit our website at www.pndsrl.it and see our full calendar of international trade events. 🏠

PND: เครื่องจักรแปรรูปอาหาร

PND SRL ยังคงคงสานต่อเส้นทางการเติบโต และทักษะความเชี่ยวชาญเพื่อความเป็นหนึ่งในตลาดนานาชาติ เพื่อตอบโจทย์ความต้องการของลูกค้าด้วยการออกแบบพัฒนานวัตกรรมเครื่องจักรส่งเสริมเทรนด์ของตลาดการแปรรูปผลไม้

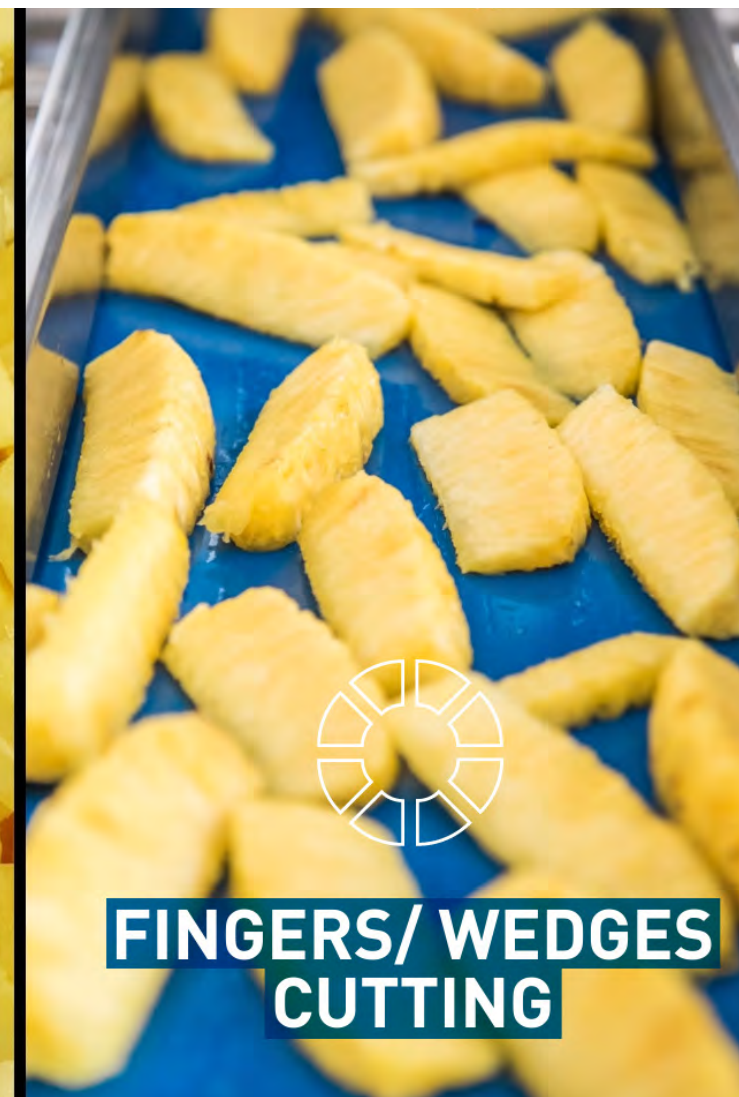
PNDมีความภูมิใจในหลักปรัชญาของบริษัทที่ทำให้เราสามารถมุ่งเน้นในการออกแบบนวัตกรรมเครื่องจักรเพื่อหลีกเลี่ยงปัญหาในการทำงานที่ยุ่งเหยิงการมุ่ง



RINGS CUTTING



CHUNKS CUTTING



FINGERS/ WEDGES CUTTING

เน้นเพื่อสนองความต้องการและแก้ไขปัญหาของลูกค้าจึงเป็นเป้าหมายสูงสุดของบริษัท ความต้องการของบริษัทPNDมีสิ่งเดียว ก็คือการแก้ปัญหาของลูกค้าด้วยเครื่องจักรของเรา เพื่อสร้างความพึงพอใจให้กับให้กับลูกค้าของเราทุกคน

การเป็นลูกค้าของ PND คุณได้เลือกเทคโนโลยีที่ถูกที่ผลิตและออกแบบเพื่อคุณโดยเฉพาะ ประสบการณ์ที่ได้เก็บเกี่ยวมาแล้วมากกว่า22ปี ในวงการอุตสาหกรรมทำให้เราเข้าใจอย่างถ่องแท้ถึงระบบและวิธีการสร้างนวัตกรรมเครื่องจักรกล

บริษัทได้สร้างและออกแบบเครื่องจักรแปรรูปมากมายตั้งแต่เครื่องแปรรูป ลูกแพร์ แอปเปิ้ลกีวี ส้ม มะนาว สับปะรด มะม่วง สตรอว์เบอร์รี และ ลูกพีช

เครื่องจักรของPNDสามารถแปรรูปผลไม้ในหลากหลายรูปแบบและรูปทรงเพื่อรองรับตลาด ผลไม้ตัดสด อุตสาหกรรมผลไม้กระป๋อง ผลไม้แห้งและผลไม้แช่แข็ง

เครื่องจักรตัวท็อปของบริษัทเป็นเครื่องจักรปกเจาะแกน และตัดผลไม้ มีทั้งแบบอัตโนมัติกับแบบมือ นอกจากนี้ยังมีเครื่องบำบัดและแห้งคัลล้างผลไม้สำหรับผลไม้เน่าเน่าพันธุ์

หากคุณเลือก 1 ใน 18 เครื่องจักร ของเราที่มีทั้งกึ่งอัตโนมัติ อัตโนมัติ เครื่องจักรเมนูอลที่ผลิตโดย PND คุณจะได้รับเครื่องจักรที่ถูกออกแบบมาเพื่อทุกความต้องการในอุตสาหกรรมการแปรรูปอาหาร เครื่องจักรทุกชิ้นง่ายต่อการตรวจสอบสภาพซ่อมแซมและ ความง่ายในการเข้าถึงของแต่ละชิ้นส่วนทำให้ทำความสะอาดง่ายมากยิ่งขึ้น

หากต้องการข้อมูลเพิ่มเติมและติดตามกิจกรรมของบริษัทท่านสามารถเยี่ยมชมเว็บไซต์เราได้ที่นี่ 

WWW.PNDSRL.IT

GET YOUR TICKETS TO ASIA FRUIT LOGISTICA

ASIA FRUIT LOGISTICA, the leading trade show for Asia's fresh fruit and vegetable industry, returns to AsiaWorld-Expo in Hong Kong on 6-8 September 2023.





Thousands of high-quality trade visitors and top buyers from fresh produce industry supply chain will attend ASIA FRUIT LOGISTICA to discover an array of products and services, including fresh produce, technology, machinery, and logistics.

Buy your tickets online now to save up to 40% compared with registering onsite and skip the queues in Hong Kong.

Tickets include free access to ASIAFRUIT CONGRESS and ASIAFRUIT BUSINESS FORUM, with both events held on the show floor across all three days.

Tickets are now available to purchase at the online Tickets-hop:

www.asiafruitlogistica.com/buy-your-tickets/

STRONG EXHIBITOR LINE-UP

Exhibitors from 38 different countries and regions have already registered to showcase their products and services at the show.

Big brands and key players from across the global fresh produce business all gather in ASIA FRUIT LOGISTICA.



Some 22 industry associations and entities will have national or regional pavilions, including Australia, Belgium, Brazil, Canada, Chile, China, Ecuador, Egypt, France, Germany, Italy, Malaysia, Moldova, the Netherlands, New Zealand, Peru, South Africa, South Korea, Spain, Turkey, USA and Vietnam.

ASIA FRUIT LOGISTICA brings together leading players from across the global fresh produce business and every step of the value chain.

The exhibitor line-up features top brands, including Aomori, BayWa Global Produce, T&G Global, Capespan, ClemenGold, Costa, Del Monte, Dole Asia, Goodfarmer, Jingold, Joy Wing Mau, Mission Produce, Pagoda, Pink Lady, Rockit Apple, Rijk Zwaan, Valleyfresh, WayCool Foods and Zespri among others.

Exhibitor registrations are still open.

Book your stand now to secure your participation at Asia's largest gathering of the global fresh produce industry.

For more information, please contact

info@gp-events.com 

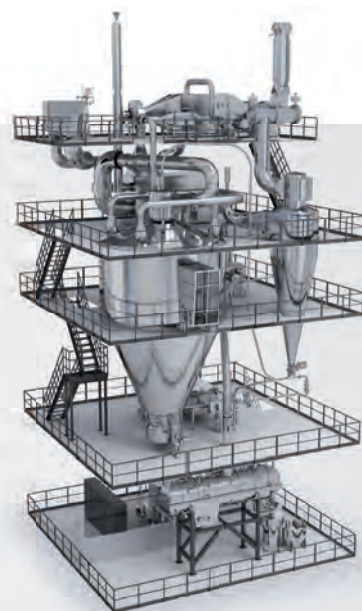




Mixed Flavours

GLOBAL PARTNER FOR **FOOD** INDUSTRY

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





ICF & WELKO: COLOURS AND FRAGRANCES FOR EVERYDAY LIFE

For thousands of years, man has been dedicating himself to the preparation of food, not only to satisfy the taste and the sense of smell, but also to provide a certain aesthetic pleasure to those who receive it. All food has always been combined with spices and other organic substances to change its taste, smell and appearance.

But not only that, colours and flavours are also used to create perfumes for the body or to make the use of otherwise anonymous substances or products more pleasant.

Colours and flavours in powder form have always been necessary in both the private and industrial circle for the preparation of foods, fragrances and other chemical and non-chemical products that present themselves to our sensory organs. It is therefore essential for companies to be able to produce these substances in full compliance with the natural features that are intrinsic in the ingredients used, with the aim of giving pleasure to end users.

ICF:WELKO
FOOD

ICF & WELKO: สีและ กลิ่นสำหรับชีวิตประจำวัน

ในหลายพันปีที่ผ่านมามนุษย์ทุ่มเทให้กับการเตรียมอาหาร ไม่ใช่แค่ทำให้เกิดความพอใจทางด้านกลิ่นและรส แต่ยังมีเรื่องความสุนทรีย์ และความพอใจและในการทานอาหาร โดยทั่วไปอาหารจะถูกผสมผสานไปด้วยเครื่องเทศและสารอินทรีย์อื่นๆเพื่อเปลี่ยนแปลงรสชาติ กลิ่น และรูปร่างหน้าตาของอาหาร นอกจากนี้สี





It is also essential, especially in this sector, to be able to guarantee a production process where there is no contamination that could compromise the quality of flavours or smells.

In the market of Flavours and Colours for the food and chemical industry, I.C.F. & Welko S.p.A. has reached a high level of proven experience over the years and for this reason has been chosen as a partner also by important international companies with production sites in various parts of the world.

Our technological knowledge of the sector enables us to offer our customers both small plants for the production of powders of various flavours or colours in small batches, and large plants for the production of large production batches. All this is done in full compliance with international environmental and safety standards, and fully meeting the expectations of each individual customer.

In this industrial circle, too, customer's satisfaction and trust are always our first target. 🏭

www.icf-welko.it/food/



และรส ยังถูกใช้ทำน้ำหอมสำหรับร่างกาย หรือถูกใช้ประโยชน์เพื่อให้สารต่างๆหรือผลิตภัณฑ์ ใหม่มีความน่ารื่นรมย์มากขึ้น

สีและรสชาติในรูปแบบของผงมีความจำเป็นในการใช้มาเสมอ ทั้งในแบบเฉพาะบุคคลหรือในอุตสาหกรรมอาหาร เติร์มอาหาร น้ำหอม เคมีภัณฑ์ต่างๆ และผลิตภัณฑ์ปราศจากเคมีต่างๆ ที่เข้ามาในระบบประสาทสัมผัสของมนุษย์ ดังนั้นเป็นสิ่งสำคัญสำหรับบริษัทในการที่จะสามารถผลิตสารเหล่านี้ให้อยู่ในส่วนผสมที่ใช้ได้อย่างสมบูรณ์ตามคุณสมบัติทางธรรมชาติ โดยมีจุดมุ่งหมายเพื่อมอบความสุขให้กับผู้ใช้ปลายทาง

นอกจากนี้การที่จะสามารถรับประกันการบวนการผลิตที่ไม่มีการปนเปื้อนที่อาจส่งผลกระทบต่อคุณภาพของรสชาติหรือกลิ่น เป็นสิ่งสำคัญอย่างยิ่ง

I.C.F. และ WELKO S.P.A. มีประสบการณ์มากมายและที่ได้รับการพิสูจน์แล้วในช่วงหลายปีที่ผ่านมา ในตลาดของกลิ่นและสีสำหรับอาหารและอุตสาหกรรมเคมีภัณฑ์ และจึงได้รับเลือกให้เป็นพันธมิตรจากบริษัทระหว่างประเทศที่สำคัญหลายแห่ง ซึ่งมีฐานการผลิตอยู่ในส่วนต่างๆ ของโลก

ความรู้ทางด้านเทคโนโลยีของพวกเขาในภาคส่วนนี้ทำให้เราสามารถทำให้เกิดการผลิตผงและสีรสชาติในปริมาณไม่มากสำหรับโรงงานขนาดเล็ก และการผลิตจำนวนมากสำหรับโรงงานขนาดใหญ่ กระบวนการทั้งหมดนี้เป็นไปตามมาตรฐานด้านสิ่งแวดล้อมและความปลอดภัยสากล สามารถตอบสนองความคาดหวังของลูกค้าแต่ละรายในอุตสาหกรรมนี้อย่างเต็มที่ เนื่องจากความพึงพอใจและความไว้วางใจของลูกค้าเป็นเป้าหมายแรกของพวกเขาเราเสมอ. 🏭

www.icf-welko.it/food/

INNOVATION, FOOD TECHNOLOGIES AND START-UPS AT CIBUS TEC FORUM

15,000 Visitors and investors expected at the new exhibition- conference designed by Fiere di Parma and Koelnmesse

Create the perfect mix of cutting-edge technology companies, champions of food innovation, research and the most influential voices on the Italian and international scene in order to provide a platform for discussion and build a new international strategy of the food and beverage sector.

These are the objectives of Cibus Tec Forum, the new Exhibition-Conference designed by Fiere di Parma

- The first world Forum on future food technology trends that combines industry, institutions and research is created in Parma - Italy.
- According to the World Health Organization, a healthy and safe diet is the best form of preventive medicine while according to the GS1 Italy Observatory only 6.2% of packaging is currently recyclable.
- A Top Buyers Program, set up in collaboration with the Italian Trade Agency (ICE) and the Emilia-Romagna Regional Authority, will bring 200 VIP food industry operators from Europe, North Africa, Balkan area and Middle East.
- A total of over 15,000 visitors and investors from Italy and abroad are expected
- 25 international conferences and talks over two days





Exhibitions, the joint venture between Fiere di Parma and Koelnmesse since 2016, that will be held in Parma on 25 and 26 October 2022.

Cibus Tec Forum, the new Exhibition-Conference, aims to meet the needs of a sector that is dealing with ever greater changes, in which technology, innovation and the ability to create synergies become strategic factors for addressing future challenges and pursuing the goal of sustainability.

"The objective - states Antonio Cellie, CEO of Fiere di Parma and Koeln Parma Exhibitions - is for industry on one side and institutions and research on the other to plan together the transformation that the food technology sector is experiencing, with the active involvement of the entire supply chain. We will do this through a hybrid format, where conferences and talks are also available streamed online and, most importantly, where foreign operators can do business both in person and remotely thanks to innovative technologies such as the MyBusinessCibusTec platform. Thousands of operators will take part in Cibus Tec Forum, a preview of Cibus Tec 2023 in precisely this spirit: getting to know the key suppliers of the most recent and efficient technologies and gauge the extent of the evolution that the food processing & packaging sector is experiencing".

"Koelnmesse has always been committed to creating new, concrete business opportunities that are then

lowered into the various national realities in which we operate" - commented Thomas Rosolia, CEO of Koelnmesse Italia and President of Koeln Parma Exhibitions - It is for us a source of great satisfaction and pride to be part of this platform, strongly desired by both visitors and exhibitors, where supply and demand can meet, giving immediate visibility to the most current products and trends in the food industry. An easy, quick and effective format; an amplifier of opportunities for foodtec suppliers through different tools - exhibition, conferences, seminars, talk shows, online match-making - but which have and will always have the same objective. Italy is undoubtedly one of the reference markets for Koelnmesse and for our part it is a priority to act to be an instrument of the success of it in the world ".

The focus of the two-day event will be highly topical issues such as digitalisation, sustainability, innovation, ecological transition, packaging and food safety. These themes will be discussed by the main international organizations, including the European Commission, FDA (the United States Food and Drug Administration) and GFSI (Global Food Safety Initiative).

According to the World Health Organization, a healthy and safe diet is the best form of preventive medicine while according to the GS1 Italy Observatory the percentage of 100% recyclable packaging is currently only 6.2%.





The Forum is organized as an Exhibition-Conference, consisting of both exhibition and conferences. In total there will be 25 events, including thematic workshops, talks and four international conferences:

- "Processing and packaging between digitalisation and sustainability" (October 25 / 10.00 am – 1.00 pm)
- "Innovations and trends in Food Safety" (October 25 / 2.30 pm – 4.30 pm)
- "Globalization and ecological transition: where are European policies headed?" (October 26 / 10.00 am – 1.00 pm)
- "Innovative materials for a circular economy" (October 26 / 2.30 pm – 4.30 pm)

At Cibus Tec Forum, visitors will be able to meet over many innovators: food and beverage technology partners, start-ups, accelerators, institutions and research centres. There will also be various exhibition areas that will immerse visitors in the smartest production plant of the future.

And it is to the future - the future of Industry 4.0 and of the Industrial Internet of Things – that Smart Packaging Hub, the Cibus Tec Forum partner dedicated to developing the packaging and technologies of tomorrow, is always looking.

A meeting point of technology of excellence in packaging for the food and beverage sector, Smart Packaging Hub includes six companies in the sector: Baumer, Cama, Zacmi, Cleverttech, Tosa and Opem.

The new MyBusinessCibusTec platform will not only help companies to generate synergies, but will accelerate the digital transformation of the Koeln Parma Exhibition business model. Thanks to a data analysis system, the platform will make it possible to build increasingly data-driven relationships between exhibitors and visitors.

Cibus Tec Forum is taking place one year ahead of the traditional triennial Cibus Tec exhibition (24-27 October 2023) whose available display area, 15 months before the event and never before so early, is already 60% booked, with a massive presence of companies from Italy, Germany, Turkey, Denmark and China. China, the great absentee from European food technology exhibitions, has chosen Cibus Tec 2023 to present their technological innovation. A sign that confirms that the exhibition has become an established event in the calendar of international operators. 🏛️

Koelnmesse – industry trade fairs for the food technology sector:

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

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

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

Further information: www.anugafoodtec.com/trade-fair/industry-trade-fairs

Fiere di Parma: a four hundred thousand sqm exhibition complex in the heart of the productive districts of Northern and Central Italy: this is the identity card of Fiere di Parma. A business, within the Italian trade fairs organizers landscape, committed to partner with companies wishing to fulfill their expectations with solutions combining tradition and innovation.

The fruitful marriage between trade fair expertise and innovative ideas has led to the establishment of leading events such as Cibus, which has long supported and promoted Made in Italy food sector across the world; Cibus Tec, a privileged showcase for food processing and packaging machinery; Mercanteinfiera and Gotha, the prodigious intuitions that over the years have succeeded to give dignity back to the antique sector as well as a professional dimension, setting trends, launching new lifestyles and inventing modern antiques and vintage.

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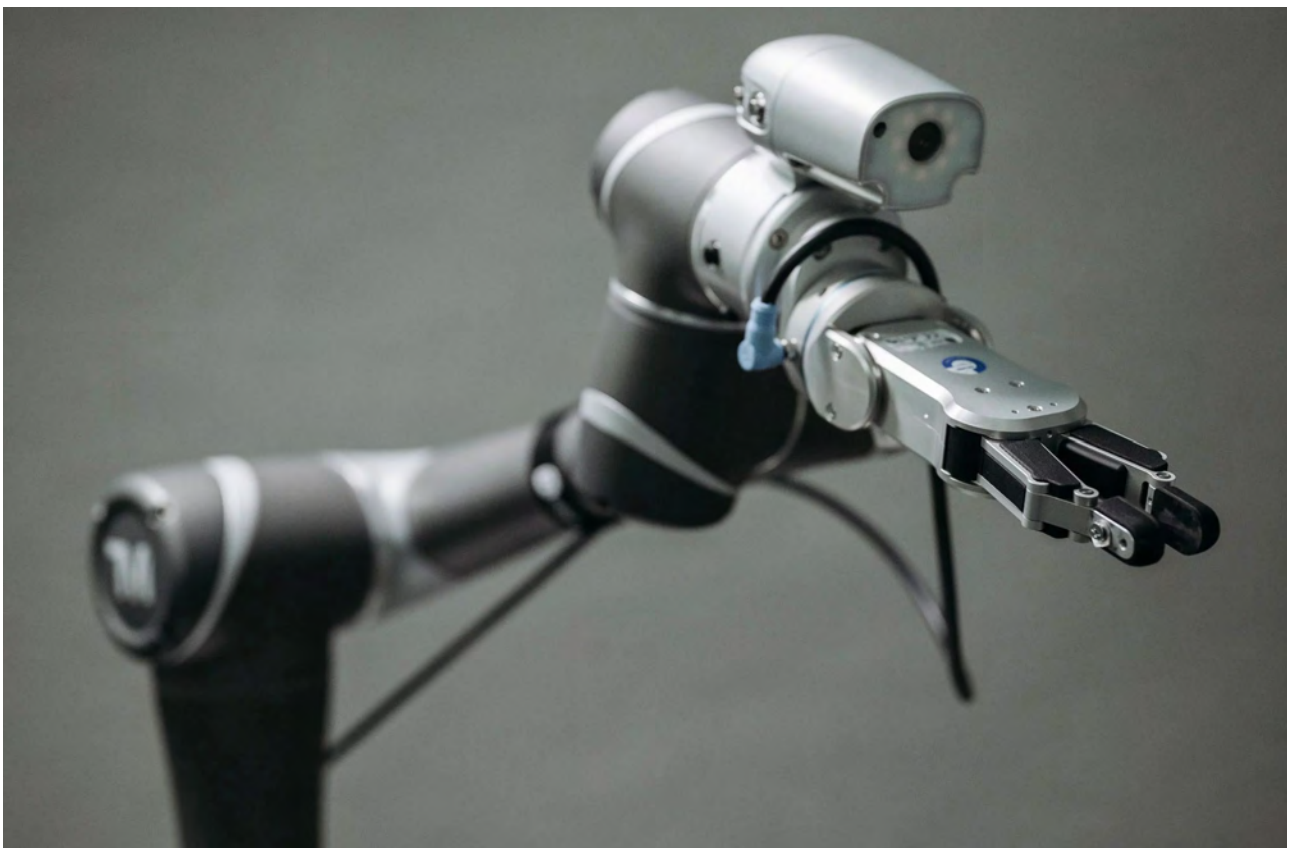
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“THE WORLD OF PACKAGING BETWEEN ROBOTICS AND ARTIFICIAL INTELLIGENCE”

The use of robotics and artificial intelligence in packaging is increasing, providing benefits in efficiency, quality, and sustainability. However, companies must consider costs and invest in training for effective use



images: unsplash.com

The world of packaging is undergoing a rapid evolution thanks to the introduction of robotics and artificial intelligence. In recent years, advanced technologies have radically changed the way companies produce and package their products, offering advantages in terms of efficiency, precision, and sustainability.

One of the main benefits of using robots in packaging is the increase in speed and efficiency. Robots can work 24/7 without interruptions or slowdowns, improving productivity and reducing delivery times. Additionally, robots can be programmed to work precisely



Our Editorial Office



and repetitively, reducing human errors and improving product quality.

Artificial intelligence is another technology that is revolutionizing the world of packaging. Thanks to AI, machines can continuously learn from their environment, improving their performance and adapting to new situations. For example, machines can use artificial vision algorithms to detect defects or anomalies in products, reducing the risk of errors and improving product quality.

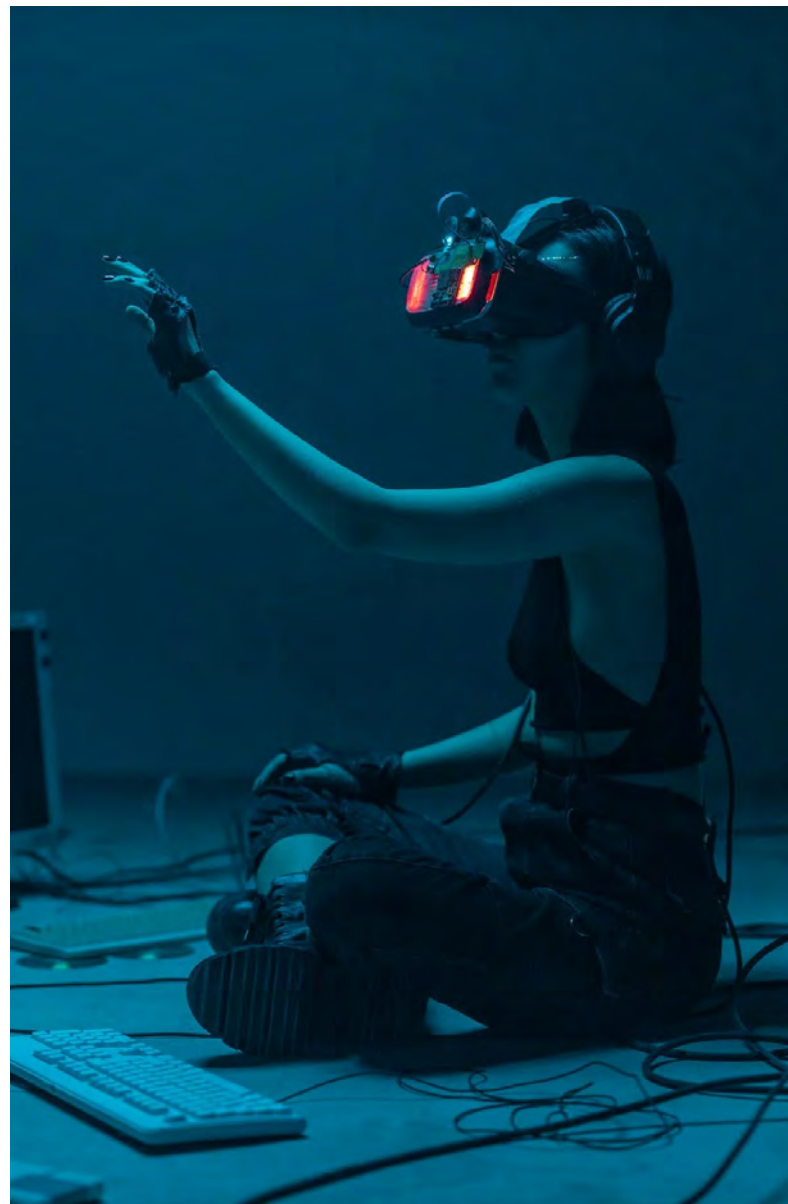
Another advantage of using robotics and artificial intelligence in packaging is the reduction of waste and environmental impact.

Machines can work with greater precision and use only the amount of material necessary to package products, reducing waste and energy consumption. Additional-

ly, machines can be programmed to recycle or reuse packaging materials, reducing environmental impact.

However, the introduction of robotics and artificial intelligence in the world of packaging is not without challenges. For example, companies must invest in expensive technologies and train personnel to use them effectively. Additionally, machines can be subject to malfunctions or breakdowns, causing interruptions in production and additional costs for maintenance.

In conclusion, the world of packaging is becoming increasingly robotic and intelligent, offering numerous advantages for companies that decide to invest in these technologies. However, it is important to carefully evaluate the costs and benefits before making a decision and ensure that personnel are adequately trained to use the machines effectively.





INGREDIENTS FOR MEAT & SAVOURY APPLICATIONS

Clearly natural solutions for perfect flavour and texture

Beyond clean label

Clean label has been a major trend in the food industry for the past decade, with food and beverage manufacturers keen to highlight that their products are free from synthetic ingredients and additives. But today's consumers are looking for more. They want to know what is in their food, not just what isn't. They want their food to be made of recognisable natural ingredients and they want to know where those ingredients came from. This desire for more transparency is leading to a massive upsurge in clearer labelling. So, while Innova Market Insights found in 2014 that a quarter of all food and beverage launches featured clean label claims, it also identified greater transparency – a shift from 'clean to clear' – as the top labelling trend for 2015.

In tune with this trend, Lycored offers Real Food Ingredients made from 100% tomato, enabling formulators to label products with reassuringly simple food declarations that all consumers will recognise. What's more, its vertically-integrated business model guarantees farm-to-fork transparency and traceability. Lycored uses its own specially bred non-GMO tomatoes, carefully grown on farms in California and Israel. Once the tomatoes are harvested, a proprietary extraction process is used to remove the delicate pigments, fibres and serum from their pulp as efficiently as possible.

Honest goodness

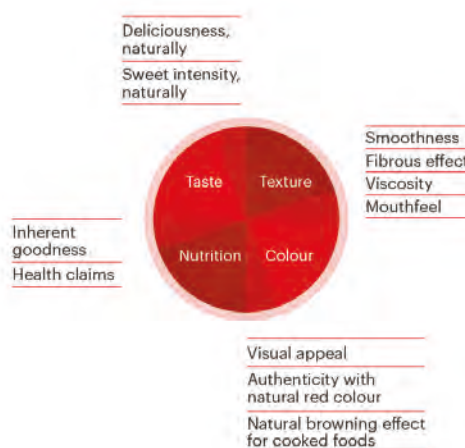
The unique non-GMO tomatoes bred by Lycored are naturally four times higher in lycopene than standard tomatoes. They are also rich in naturally occurring taste compounds, including glutamate, which is an amino acid. Lycored's Real Food Ingredients range builds on the goodness of these tomatoes to enhance the taste, colour and texture of food, while also providing an inherent nutritional advantage. There are four product types available from Lycored, as follows:

- **SANTE** - this taste enhancer provides a high concentration of the natural compounds that produce umami (the fifth taste) and kokumi (the Japanese word for deliciousness). SANTE accentuates existing flavour characteristics while remaining taste neutral.
- **Clear Tomato Concentrate (CTC)** - a concentrated serum with a savoury character that offers balanced sweetness from 60 brix combined with higher acidity

than SANTE, which creates a smooth balancing taste effect. In tomato-based products, it also increases tomato taste intensity.

- **Lyc-Fibers** - these modify the pulpiness, viscosity and mouthfeel of sauces, soups and meat products. The unique, authentic texture they provide cannot be achieved reliably using other texturisers. They lend products a pleasant pulpy fibre mouthfeel, without the slimy consistency of formulations that rely on alternative stabilisers such as gums and starches.
- **Dry Tomato Pulp** - this combines a fresh, vibrant and consistent red colour with a stable texture for red sauces, ketchups and soups. Its fibre content can add to the health credentials of a naturally-positioned product. It also works well as a natural colourant and texture improver in meat-based products such as sausages, in which many food colourants or starches are not permitted.

4 dimensions of goodness, from our tomato



SANTE - natural deliciousness

Available as a liquid or powder, SANTE provides naturally occurring umami and kokumi tastes with a low sodium content. Umami, meaning 'delicious taste', is also known as the fifth taste – after bitter, sweet, salty and sour – and its savoury, meaty character is detected via the taste receptors for glutamate. Kokumi, meaning 'rich taste', provides balance and a hearty mouthfeel. Kokumi is delivered by foods with the right combination of amino acids. Importantly, SANTE ma-



nages to combine both of these attributes with a clean and clear label. Manufacturers may declare SANTE as 'tomato concentrate' or 'natural flavour', according to local regulations. SANTE is taste-neutral, with no overt tomato taste, so it can be used to boost the flavour of both sweet and savoury products. It is ideal for use in soups, sauces and marinades and in its powdered form it can also be applied as part of a seasoning mix for products such as potato chips and extruded snacks, and in spice blends for meat products. Low dosages of between 0.15 and 0.7% are sufficient to deliver a highly accentuated taste experience, and SANTE is stable across a wide range of temperatures and pH. As well as providing all these positive attributes, SANTE enables formulators to reduce or eliminate a range of ingredients with negative labelling connotations, such as MSG, ribonucleotides, yeast extracts and hydrolysed vegetable proteins. In addition, thanks to its ability to enhance the salty flavour of products, SANTE allows a reduction in sodium from salt by 30 to 50% in some applications. The secret of SANTE lies in the high levels of naturally occurring glutamate in Lycored's specially bred tomatoes. Glutamate occurs naturally at high levels in many delicious foods, such as ham and Emmental cheese, Nori seaweed and scallops. Lycored's special breed of tomato is also a rich source of natural glutamate. It has an amino acid concentration of almost 9%, of which 32% is natural glutamate.

Clear Tomato Concentrate - smooth flavour

CTC is a clear liquid that acts as a natural taste improver for food, bringing a smoother character to savoury products such as soups, condiments and sauces. It can also intensify the tomato character of tomato-based foods and act as an extender for tomato paste, which can be expensive. CTC can be declared as consumer-friendly 'tomato concentrate' and, like SANTE, it gives formulators a way to reduce or eliminate their use of less attractive ingredients. It is stable across a range of pH and temperatures. It is colour-neutral and besides delivering a better taste and cleaner label, it can also produce a browning effect for a more appealing appearance in foods such as pies and pastries.

Lyco-Fibers - authentic texture

Formulators can modify the pulpiness, viscosity and mouthfeel of sauces, soups and meat products naturally using Lyco-Fibers. Not only do they deliver a cleaner label, but they also carry the positive benefit of fibre content. Their high stability means that Lyco-Fibers do not undergo syneresis when used in sauces. In addition, while alternative stabilisers such as gums and starches can lead to a slimy consistency, Lyco-Fibers deliver an authentic vegetable fibre texture. Lyco-Fi-

bers also improve the juiciness of meat products and prevent burning of the meat when barbecuing.

Dry Tomato Pulp - visual appeal with fibre

Lycored's Dry Tomato Pulp is perfect for formulators looking to produce tomato-based sauces, soups and dips with a fresh and vibrant 'made from scratch' look, taste and texture that remains stable throughout a product's shelf-life. It also suits meat products such as sausages. The pulp delivers a fresh, consistent, natural red colour thanks to its high lycopene content, combined with an authentic pulpy texture. It also contains fibre and can carry a consumer-friendly 'crushed tomatoes' or 'tomato concentrate' label within the EU. Conventional tomato pastes can be inconsistent, which may lead to formulation challenges. In contrast, Lycored's Dry Tomato Pulp provides reliable, consistent, repeatable results. It also permits the removal of starches from sauces, leading to a shorter ingredients list.

Benefits of Lycored's Real Food Ingredients at a glance:

- Foodstuff label declaration
- Cleaner label and a shorter ingredient list in many applications
- Stable across a range of pH and temperatures
- Allergen-free
- Kosher and Halal
- Fibre content
- No added glutamates
- Non-GMO
- Vegan

Inherent goodness – naturally

Lycored is an international company committed to 'Cultivating Wellness' by harnessing the nutritional potential of nature using cutting edge science. The result is a growing portfolio of natural ingredients and products that formulators and – just as importantly – consumers can recognise and trust. Lycored's first 'hero ingredient' was lycopene, which has been clinically proven to help support general health and, more specifically, heart, skin, prostate and female reproductive health, among others. As global leaders in natural carotenoids for food, beverage and dietary supplement products, Lycored's experts are constantly developing new fortification blends using lycopene to support relevant health claims. Beyond this, simply including Lycored's natural tomato ingredients allows customers to provide an 'inherent goodness' or better-for-you positioning for their products. Established in 1995, Lycored is based in Israel, with sales and production operations in the UK, Switzerland, the US, Ukraine and China. 🏠

www.lycored.com



TP FOOD GROUP: A SUCCESSFUL BUSINESS MODEL WITH A GLOBAL FOOTPRINT

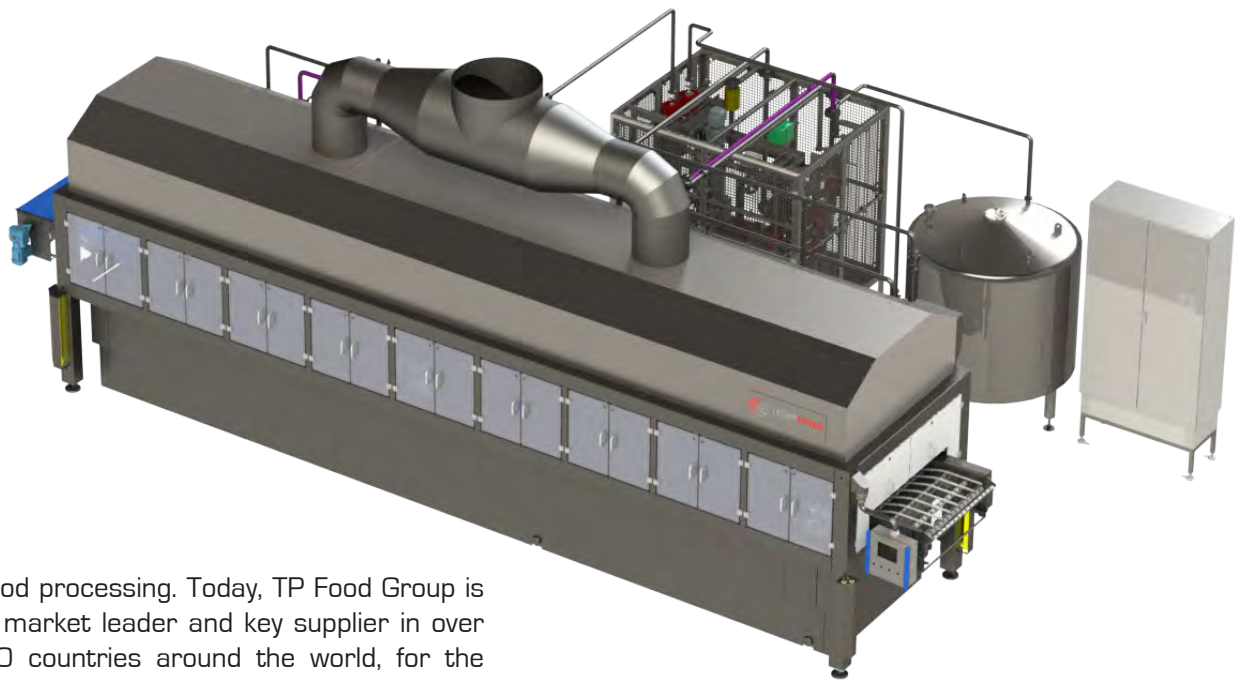


Innovative spirit, attention to customer needs and forty years of experience in the food processing sector. With these premises, TecnoPool S.p.A. embarked in 2015 on a development and growth path which, in 2019, led to the formation of TP FOOD GROUP.

The acquisitions. Over the past few years, a series of companies joined TecnoPool Group: Alit (Italy, 2015), the Gostol (Slovenia, 2016), the Tecnofryer (Spain, 2017) as well as Logiudice Forni, Mimac and Mecateck (Italy, 2018). The combined expertise of the Group has enabled a well-rounded Total Processing solution offering. To constantly pursue technological development and provide customers increasingly high-performing equipment, the group has set one main Mission: to become a global leading supplier of machinery and complete lines for industrial, semi-industrial and artisanal

TP FOOD GROUP: โครงสร้างบริษัทที่เป็นรอย เท้าที่ก้าวไปสู่ความสำเร็จ ระดับโลก

จิตวิญญาณอินโนเวทีฟ, ความเอาใจใส่ความต้องการของลูกค้าประสบการณ์มากกว่า 40 ปีในวงการแปรรูปอาหาร บริษัท TECNOPOOL S.P.A จึงได้ตั้งเป้าหมายในปี 2015 ที่จะพัฒนาและเติบโตบริษัท จนในที่สุดในปี 2019 เราได้ก่อตั้ง TP FOOD GROUP



food processing. Today, TP Food Group is a market leader and key supplier in over 80 countries around the world, for the design, production and installation of food processing equipment, with a strong orientation towards “Tailor Made” solutions. As a unique, worldwide player, with a leading role in the Bakery Products sector, TP FOOD GROUP can satisfy every customer request, thanks to a wide range of ovens: from the small artisan to the semi-industrial laboratory, up to the most complete industrial line, covering all manufacturing processes: from dough preparation to packaging.

From the small baker to the large food industry. The idea behind this relentless development is simple and ambitious: to provide customers with the best solutions for their needs, by designing complete and tailor made lines. Customized structures and processes leave customer's imagination as the only limit. That is why, for each buyer, TP FOOD GROUP studies and implements customized and flexible systems, meeting every specific need. Experience, Research and the Knowledge, gained over decades of activity, allowed the group to develop an analytical and dedicated approach. After evaluating any critical aspect together with the customer, the company can offer innovative products and improved solution compared any existing one.

Strong ties with company values are leading the Group to focus on meeting high quality for its products and delivering excellent level of support services before and after sales. The Group companies are proud of the timely and accurate support that can

การเข้าซื้อกิจการ ในช่วงปีที่ผ่านมาบริษัทมากมายได้เข้าร่วมครอบครัว TECNOPOOL GROUP บริษัท ALIT (อิตาลี, 2015), GOSTOL (สโลวีเนีย, 2016), TECNOFRYER (สเปน, 2017) แม้กระทั่ง LOGIUDICE FORNI, MIMAC และ MECATECK (อิตาลี, 2018).

การเติบโตของบริษัทและการเข้าซื้อกิจการทำให้เรามีผู้เชี่ยวชาญที่มีทักษะหลายด้านทำให้สามารถให้บริการที่ครอบคลุมได้ในทุกๆ ด้านหรือที่เราเรียกว่า “TOTALPROCESSING” เป้าหมายของเราคือการพัฒนาอย่างต่อเนื่องด้วยการพัฒนาเทคโนโลยีและสร้างเครื่องจักรและเครื่องมือเพื่อลูกค้าของบริษัท

บริษัทเราได้ตั้งพันธกิจ(MISSION): เพื่อเป็นซัพพลายเออร์ชั้นนำระดับโลกด้านเครื่องจักรและสายผลิตภัณฑ์ครบวงจรสำหรับการแปรรูปอาหารทางอุตสาหกรรม กิจอุตสาหกรรมและงานฝีมือ

ปัจจุบันบริษัท, TP FOOD GROUP เป็นผู้นำในตลาดและเป็นซัพพลายเออร์หลักในมากกว่า 80 ประเทศทั่วโลก ปรัชญาการทำงานของบริษัทคือการทำงานที่มุ่งเน้นในการออกแบบเครื่องจักร “TAILORMADE” ออกแบบมาเพื่อคุณ

ในฐานะบริษัทผู้นำในตลาดผลิตภัณฑ์เบเกอรี่เราจะมอบความพิเศษและความยิ่งใหญ่ระดับโลกให้กับลูกค้าทุกท่าน บริษัท TP FOOD GROUP สามารถสนองทุกความต้องการของลูกค้า ด้วยตัวเลือกเตาอบมากมายตั้งแต่เตาอบขนาดเล็ก เตาอบ เตาอบกึ่งอุตสาหกรรม จนถึงเตาอุตสาหกรรม ขอขอบคุณทุกกระบวนการอุตสาหกรรมตั้งแต่การทำแป้งจนถึงการใส่บรรจุภัณฑ์จากคนทำขนมปังรายเล็กสู่อุตสาหกรรมอาหารขนาดใหญ่



be provided 24 hours a day, 7 days a week, which represents a strong competitive advantage in the market. Periodic check-ups and direct remote support allow customers to prevent critical interruptions and downtime, ensuring continuity in the plant production process. The Research and Development efforts, focused on introduction of innovative technological solutions, aim at continuously improving manufacturing processes to further optimize customer production rates and costs. Of course, the quality of the product is paramount as well as a considering "energy saving" and environmental aspects.

Having the possibility to test every type of product, with the supervision and assistance of experienced technologists and specialized technicians, represents an important added value. TP Food Group customers can benefit from this opportunity, thanks to a fully equipped Test Room, where key users can take advantage from a wide range of equipment made available to them.

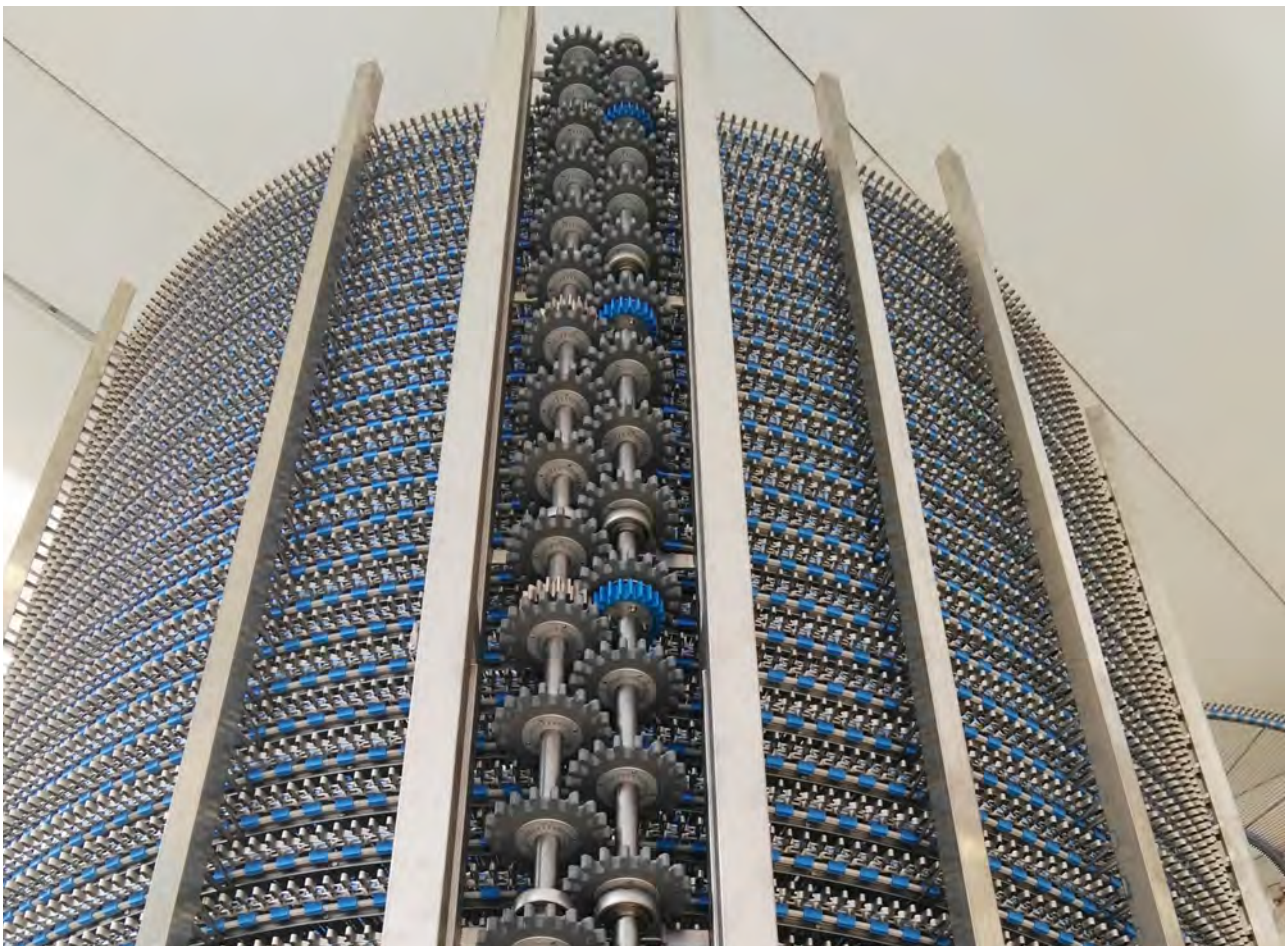
แนวคิดที่อยู่เบื้องหลังการพัฒนาที่ไม่หยุดหย่อน คือ การทำให้ง่าย และการพัฒนาที่มีความทะเยอทะยาน: เพื่อมอบสิ่งที่ดีที่สุดให้กับความต้องการของลูกค้า. การออกแบบด้วยระบบที่ลูกค้าสามารถเลือกเองได้ตามความพึงพอใจลูกค้าสามารถเลือกผสมองค์ประกอบต่างๆที่มีให้เลือกตามที่ต้องการ

บริษัท TP FOOD GROUP TR, ได้ทำการวิจัยศึกษาและนำข้อมูลไปใช้ในการสร้างนวัตกรรมที่ครอบคลุมความต้องการของผู้ใช้อย่างกว้างขวาง ประสบการณ์ การวิจัยและความรู้ที่บริษัทได้เก็บเกี่ยวในหลายทศวรรษที่ผ่านมาได้สร้างทัศนคติในการทำงานที่มุ่งเน้นการวิเคราะห์และการประมวลผลข้อมูลที่ได้จากประสบการณ์ทั้งหลาย คู่ค้าที่ร่วมงานกับเราจะได้รับการประเมินเพื่อให้เข้าใจถึงปัญหาของลูกค้าที่กำลังพบอยู่เพื่อความสะดวกในการทำงาน

ค่านิยมองค์กรของเราคือการนำรูปของเรา ให้อยู่จุดสุดยอดของคุณภาพการบริการ ทั้งก่อนและหลังการขาย บริษัทภายใต้เครือของเราภูมิใจในบริการ 24 ชั่วโมงทุกวัน

บริษัทมีการติดตามงานและการสนับสนุนหลังการขายเพื่อหลีกเลี่ยงการขัดข้องที่อาจทำให้เกิดการเสียเวลา

บริษัทได้ทุ่มเทการวิจัยและพัฒนาที่มุ่งเน้นในการการสร้างนวัตกรรม ที่จะช่วยเพิ่มความเร็วในการผลิตและลดต้นทุน และ





- **Tecnopool:** World leader in the design, manufacturing and installation of equipment for complete production lines, covering food industry heat treatments during all stages of processing: proofing, baking, cooling, freezing and pasteurization, from - 40 °C to + 300 °C, with infinite fully customizable layout configurations.
- **Gostol:** Provider of integrated industrial solutions for bakeries. Offering both thermal cycle and convection as well as diathermic oil deck ovens, including integrations services for the bakery equipment. Addressing medium and large industries, while covering make-up, molding and leavening processes.
- **Tecnofryer:** manufacturer and supplier of innovative industrial, semi-industrial and semi-artisan fryers, for various food sectors: from bakery to meat, from breaded products to snacks and peanuts, also covering pet food products.
- **Logiudice Forni:** Leading manufacturer producing professional steam tube deck ovens, electric ovens, rotary ovens and professional spiral mixers for bakeries, pastry shops and pizzerias.
- **Mimac:** Leading manufacturer of dropping machines for the confectionary industry: the best solutions to concretely satisfy the production needs of artisan shops, semi-industrial producers and the large retail sector.
- **Mecateck:** builder of tunnel and multi-level lines and ovens for the industrial and semi-industrial sector.

TP Food Group is positive and determined about its future, driven by the strength of six leading worldwide recognized companies. Constant commitment and ambition will be the leitmotif for continuous growth, to remain on the leading edge of a constantly evolving market. 🏡

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คำนึงถึงการประหยัดพลังงานและผลกระทบต่อสิ่งแวดล้อมอีกด้วย

การได้รับโอกาสที่จะลองผลิตภัณฑ์ทั้งหมดและรับการดูแลจากผู้เชี่ยวชาญเป็นหนึ่งในสิทธิพิเศษที่ไม่สามารถหาที่ไหนได้ คู่ค้าทุกท่านของ TP FOOD GROUP จะได้รับสิทธิพิเศษในการใช้บริการ TEST ROOM ที่เปิดโอกาสให้ทดลองใช้อุปกรณ์และเครื่องจักรที่อยู่ในพื้นที่ทดลอง

บริษัทภายใต้เครือ TP FOOD GROUP

- **TECNOPOOL:** ผู้นำโลกในการออกแบบ ผลิต และ ติดตั้ง โหล้นการผลิต ครบคลุมตั้งแต่ อุตสาหกรรมการอบ การแช่เย็น แช่แข็งและพาสเจอร์ไรซ์ ตั้งแต่อุณหภูมิ - 40 °C ถึง 300 °C เราจัดการได้หมดพร้อมกับตัวเลือกตั้งค่าได้ไม่มีที่สิ้นสุด
- **GOSTOL:** ผู้ผลิตนวัตกรรมเครื่องจักรสำหรับการอบเบเกอรี่ ผลิตเครื่องที่มีศักยภาพคุมวงจรความร้อนและการพาความร้อนได้ดี อย่างเช่นเตาอบแบบชั้น (DIATHERMIC OIL DECK OVENS) , รวมไปถึงบริการบูรณะซ่อมแซมและดูแลอุปกรณ์เครื่องจักรเบเกอรี่สำหรับอุตสาหกรรมขนาดกลางและใหญ่
- **TECNOFRYER:** ผู้ผลิตและซัพพลายเออร์ของนวัตกรรมเครื่องทอดอาหารอุตสาหกรรม ทั้งอุตสาหกรรม และเครื่องทอดเฉพาะทาง สำหรับอุตสาหกรรมอาหาร ตั้งแต่ ขนมปัง ถั่ว เนื้อ ผัก จนถึง ขนมและอาหารสัตว์
- **LOGIUDICE FORNI:** ผู้นำการผลิตเตาอบมืออาชีพ อย่างเช่นเตาอบ STEAM TUBE DECK, เตาไฟฟ้า, เตาอบแบบหมุน (ROTARY OVENS) และ เครื่องนวดแป้งมืออาชีพ (SPIRAL MIXERS) สำหรับร้านเบเกอรี่ ร้านขนมและร้านพิซซ่า
- **MIMAC:** ผู้นำการผลิตเครื่องหยด(DROPPING MACHINES) สำหรับใช้ในอุตสาหกรรมลูกกวาดลูกและลูกอม :เครื่องจักรเฉพาะทางที่ถูกออกแบบมาเพื่อตอบโจทย์อุตสาหกรรมลูกกวาดตั้งแต่ผู้ผลิตรายย่อยจนถึงผู้ผลิตขนาดใหญ่
- **MECATECK:** ผู้ผลิตเตาอบทรงอุโมงค์และเตาอบชั้นสำหรับการใช้งานเชิงอุตสาหกรรมและกึ่ง อุตสาหกรรม

TP FOOD GROUP ด้วยพลังและแรงผลักดันจาก 6 บริษัทระดับโลกภายใต้เครือของเรา เรามีความเชื่อมั่นศักยภาพที่จะนำตลาดอุตสาหกรรมอาหารในอนาคต ด้วยความทะเยอทะยานและการเติบโตที่ไม่หยุดหย่อนพร้อมที่จะรับมือทุกการเปลี่ยนแปลงในโลกอุตสาหกรรม 🏡

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“

The Covid- 19 pandemic certainly had a negative impact on the Italian organic food industry. However, this sector has begun to recover as consumers resume demand for delicious perishables. In the first six months of 2022, profits in Italian food exports rose by 16% compared to the previous years.

Germany, France, and Benelux are the biggest areas for importing Italian food products. However, there is also a thriving B2B industry within Italy itself. In 2023, there are several trends for food production and distribution to be aware of. Here are some of them.

Food Traceability

When a restaurant purchases food products from a supplier, they want traceability for all sections of the supply chain. This is especially true for meat such as poultry, as animal welfare is a major concern. Organic and ethically



Our Editorial Office

sourced meat will likely be a key focus for the industry in 2023. Italy provides a large amount of fish to both local and international businesses.

Companies that are transparent about their practices will seem more attractive.



BUSINESS OPPORTUNITIES START HERE



Thai-Italian Chamber of Commerce (TICC) main aim is to enhance business cooperation between Europe and Thailand.

We are strategically situated in Bangkok, Thailand which is a Business Hub for South East Asia.

The main purposes of all TICC activities are:

- To assist Italian companies and other professional bodies who are either already established and/or planning to do business in Thailand or within the ASEAN region.
- To provide insights and advices on matters of trade, investment, finance and industry between Italy and Thailand or within South East Asia.
- To organize bilateral events/trade shows periodically, in the form of seminars, talks, missions, round table or business dinners, in order to promote interaction between subjects.
- To keep close contact with the Thai authorities, pressing issues when necessary.
- To support, represent, and protect the interests of the Members, both in Italy and Thailand.



Interested companies may write to us for exploring the market and business in Thailand or for browsing potential business opportunities.



GET IN TOUCH

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Thai-Italian Chamber of Commerce TICC



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THAI - ITALIAN
CHAMBER OF COMMERCE





Technological Advancements

The rise of eCommerce has transformed the Italian organic food industry. It has expanded the different types of products available to order. B2B logistics can become more efficient in the coming year as new forms of technology are embraced. On the other hand, classic staples such as pasta and vegetables will still be ordered wholesale by customers all over the world. Technology could even be used in the production of the food itself. For example, olive oil companies may use new hardware and software to increase their yield on a factory scale without undermining their organic status.

Fast Delivery

Advanced GPS apps and delivery drones allow perishable Italian foodstuffs to reach the customer in a shorter amount of time. This means that in 2023, restaurants can get fresh products and serve them on the same day. Pizza continues to be an extremely popular form of Italian food. Live yeast is required to make the dough. In the past, organic yeast would have died before reaching the customer. As a result, people resorted to canned products instead.

Demand for Shelf Life

Meanwhile, 2022 saw a marked increase in the demand for food with an enhanced shelf life. This poses an issue for suppliers of organic products. Firms will need to find ways to make items last longer without resorting to the use of additives.



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AIR MOTORS: INTEGRATION WITHIN CAPPING MACHINES IN THE FOOD INDUSTRY

Also in the Food Industry, Air Motors are excellent solutions, exploiting the use of compressed air, that can be used as integrable components on machinery or to hand tools, and can be therefore effective in numerous applications.

Their use in the Food Sector is, in fact, really heterogeneous, being incorporated into machinery to stir substances or liquids, to mix, to drive clipping machines in meat processing or to cap recipients.

Fiam[®]
PEOPLE AND SOLUTIONS

The Case Study described by Mr. Nicola Pellizzari, Fiam Group's Product Manager for Air Motors, and related to a company in the Food Industry producing synthetic casings, refers to this specific function.

In fact, the above-mentioned synthetic casings, used to cover cured

meats, have to be kept in appropriate jars, immersed in a 25 % saltwater solution for their perfect/proper preservation. The customer was looking for an effective technology that could eliminate the manual work of closing the lids of plastic jars in the production line, thus optimizing production operations even at this stage.





For this purpose, Fiam has designed and produced a customized air motor to be combined with a capping head, with the function of rotating it to tighten the plastic lid of casing jars.

The capping is done by taking advantage of the stall torque of the air motor.

Considering the highly humid and corrosive environment, the customer discarded from the beginning the idea of installing an electric motor, to avoid short circuits that would be created due to the presence of a high percentage of humidity, and secondly, to avoid corrosive phenomena resulting from the presence of water and salt in the solution contained inside the jars containers.



The application involved an air motor made with an outer casing of plastic material of the type of POM C Ertacetal, a material that gives high mechanical strength as well as excellent dimensional stability.

In addition, stainless steel AISI316 has been used for the output shaft in order to definitively avert the risk of corrosive phenomena.

From this Case Study we can see the main advantages of an Air Motor for Food machinery, an industry characterized by high humidity and with strict cleaning and sterilization requirements, for which Motors have all the necessary features:

- IP67 degree of protection that prevents water/steam/dust from entering the motor and damaging it
- Safe and reliable operation even at high temperatures

- High corrosion resistance due to galvanic treatments that make them highly resistant to aggressive agents
- Fabrication with high-quality stainless steel according to ISO standards
- Gears lubricated with food-grade lubricant
- Cavity-free outer surfaces that prevent dust and dirt accumulation and ensure ease of cleaning and sterilization

Not only Fiam offers a wide catalog range of models in the stainless steel version with IP67 Protection and with ATEX Certification, perfect for application in the Food industry, but there are also numerous “unique” customized solutions, often designed together with the customer in co-engineering mode. A truly important aspect of distinction of Fiam and our R&D. 🏭

www.fiamgroup.com

PELLACINI - THE FUTURE-PROOF, FOOD-TECH INDUSTRY

It all started with the aim of enhancing and preserving all the flavour of tomatoes, one of the symbols of Made in Italy excellence and of the Parma area. From then on, it was 1896, the year the company was founded, the synergy between industry and agriculture became increasingly consolidated, and Pellacini Engineering, a company specialized in

the design and construction of fruit and tomato processing plants, became the protagonist of various innovations, through the creation of numerous industrial patents, and the expansion of its commercial prospects abroad.

Pellacini Engineering has experienced all the stages of growth in the food processing sector, and, thanks to its experience gained in

the international field, is now able to respond to a market that is increasingly attentive to productivity, safety and environmental sustainability.

What are your peculiarities and operating philosophy?

Our peculiarity is that of being able to transfer into the present the great wealth of knowledge acqui-





Transforming food in a smart, sustainable way. Talking about it is engineer Francesco Pellacini, owner of Pellacini Engineering.

red over a century of work, and that of adopting a production methodology in line with the needs of economy and technical effectiveness demanded by the current market. Indeed, our production philosophy is based on an innovative methodology: the Tailoring System. We design solutions based on the specific needs of the customer, and, free from our own production

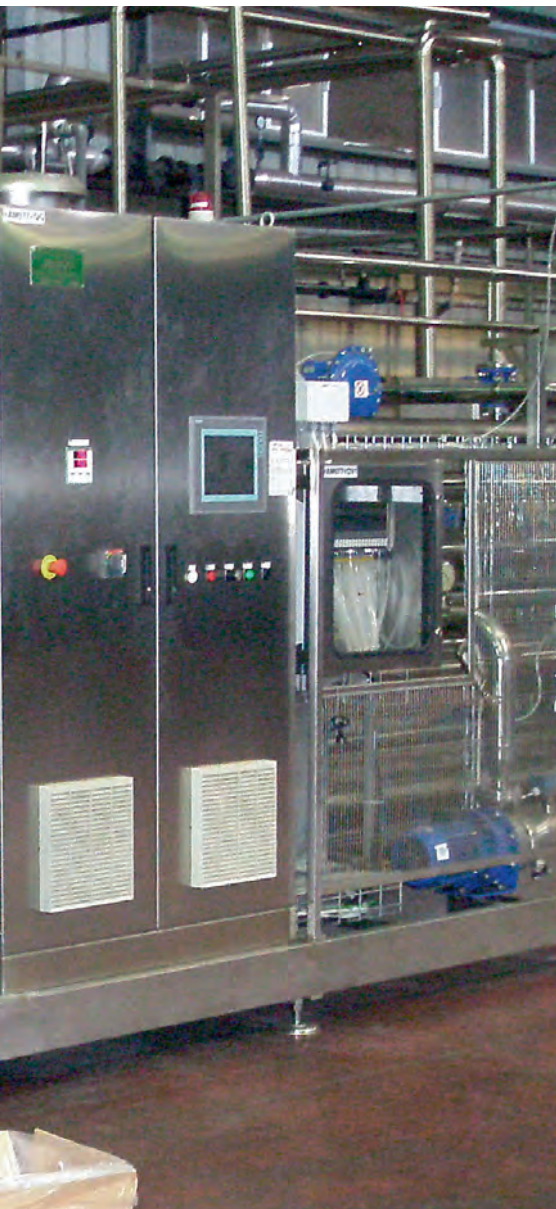
constraints, choose the most suitable workshops for each project, managing the tailored production process, and directly controlling each phase to guarantee the best quality to price ratio.

In a global context in which it is increasingly difficult to stand out, how have you achieved it? It is well-known that the Pellacini brand is a strength ...

Our story began with a first workshop in 1896, entirely dedicated to tomato processing, helped by our location in the Parma area. In 1925, we registered our first patent: the "Reviati System Mixer"

was the first prototype of the current continuous pasteurizer. Among our firsts was that of having been among the very few in Italy to experiment with an aseptic filling system in pre-sterilized bags, respecting strict international standards.

The Pellacini brand is known all over the world. On the market for several generations, it has created a network of customers, in both strategic countries and markets where it has presented itself as a first mover. This diversification has ensured territorial coverage and





an excellent brand reputation. Interest and trust have always grown, and customers associate Pellacini with a highly competitive quality to price ratio.

Today more than ever, with the affirmation of the principles of sustainability and energy efficiency, a space is opening up for the evolution of production processes that particularly concern the food sector. And it is precisely in this direction that Pellacini is directing its R&D, as evidenced by some already consolidated projects that aim to optimize resources, in terms of both energy and raw materials, for example, by creating plants aimed at recovering up to 95% of production waste.

What commercial strategy and goal does Pellacini Engineering have? What are the results of the Pellacini Engineering – Co.Mark collaboration?

Pellacini's commercial strategy has always been based on its excellent reputation, acquired and consolidated over 125 years of history.

The good references of previous customers have made it possible to acquire new ones, while relations with returning customers have been consolidated by a prompt and efficient after-sales assistance and spare parts service.

That said, competition, new technologies and the new production

model have made it necessary to take action to generate more contacts and, above all, ensure continuity.

On this basis, a fruitful collaboration came into being with Co.Mark, a consultancy company specialized in internationalization, with the aim of constant growth and an organic coverage of the markets in which Pellacini Engineering operates. 🏢

www.pellacini.com



“EXPENDITURE ON NATIVELY CONNECTED MACHINES AND EQUIPMENT IS UP BY 17%”

Thanks to the incentives,
exponential growth towards agriculture 4.0



by Elisa Crotti

Agriculture 4.0 in Italy has grown and continues to grow constantly, despite the Covid-19 crisis and the international geopolitical scenario. According to a survey carried out by the Smart Agrifood Observatory of the School of Management of the Politecnico di Milano and by Rise Laboratory (Research & Innovation for Smart Enterprises) of the University of Brescia, the sales turnover of this market rose sharply from 540 million Euros in the first semester of 2020 to 1.3 billion at

the end of 2020, reaching 1.6 billion in 2021. These remarkable results were presented during the conference titled “Smart agrifood: let’s pick the fruits of digital innovation!”.

There are several technologies on which investments in agriculture 4.0 are primarily focused, first and foremost natively connected agricultural machinery and equipment, which have registered a significant rise in expenditure. According to the Observatory,



this expenditure accounts for 47% of the market and is increasing by + 17%.

The boost is provided by incentives, to the advantage of mechanized equipment and substantial increases in the sale of tractors, for example, followed by monitoring and control systems for after-sale application on agricultural vehicles and equipment. In fact, 2021 represented a year of growth for the registrations of tractors and agricultural vehicles (+ 36% compared to 2020, according to the calculations of FederUnacoma, with a sales turnover for the Italian market of approximately 14 billion euros).

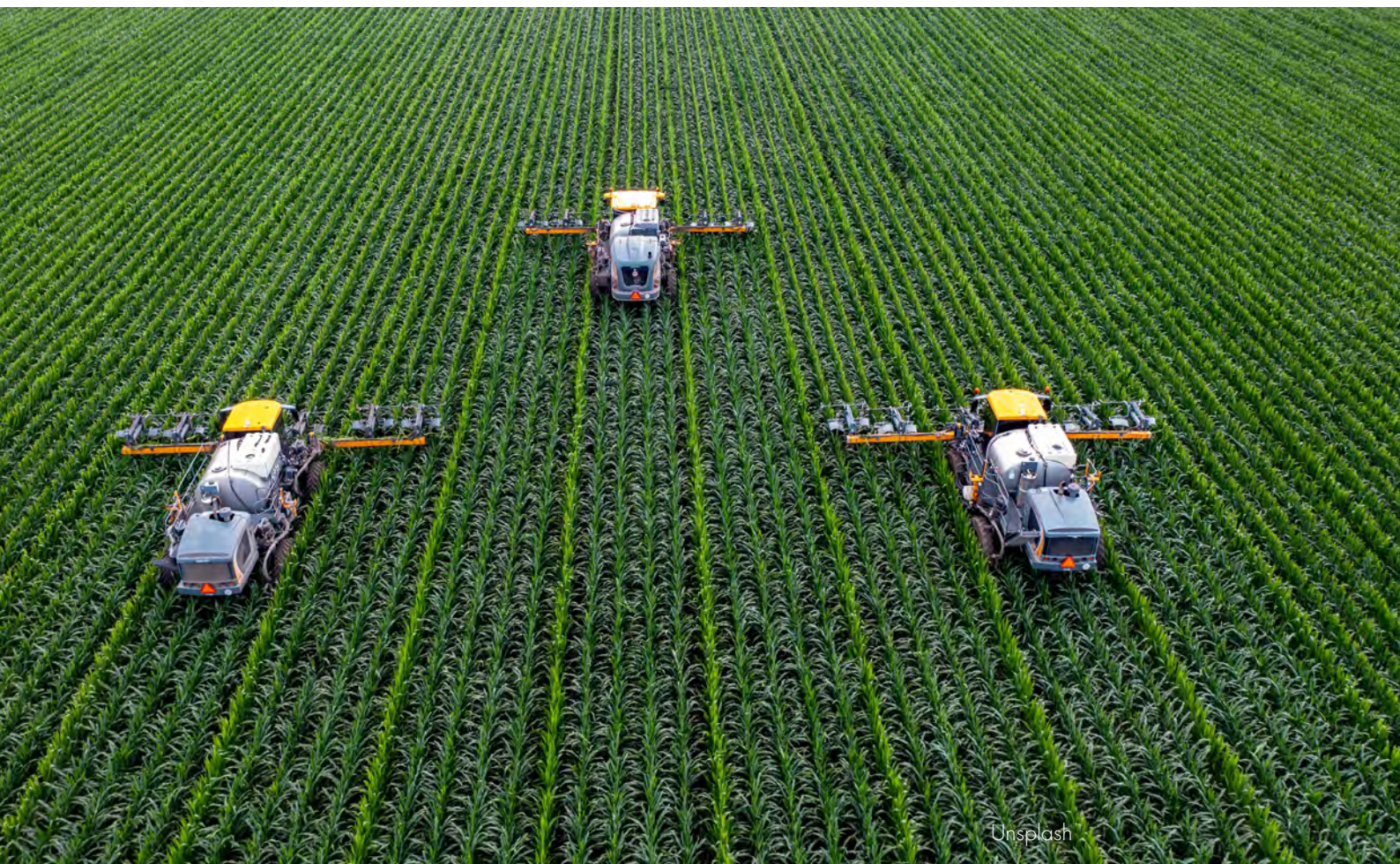
Indeed, with market growth being driven by incentives, especially the subsidies of Rural Development Programs and the Transition Plan 4.0, it is not surprising that three quarters of farms have used at least one Agriculture 4.0 incentive. Of these, 84% argue that incentives have had a decisive impact on investment choices, allowing them to anticipate them (for 44% of companies), to invest in more than one solution (20%) or in a more expensive solution (20 %).

The key to their success was that of linking the tax credit to mechanization and the implementation of innovative solutions. Initially, operators adopted these solutions to obtain the incentives. Subsequently, they realized the benefits of their investment and use rates have increased constantly.

This has extended the area being farmed with Agriculture 4.0 equipment, which reached 6% of the total in 2021, double the previous year.

Also according to the Observatory, in 2021 60% of Italian farmers used at least one Agriculture 4.0 solution, + 4% compared to 2020, and over four out of ten use at least two, in particular management software and monitoring and control systems for machinery. The researchers also report a growing interest in data analysis and decision support systems, confirmed by 26% of farmers who foresee investments in this area of agriculture 4.0 for the near future.

A trend for a new concept of farming, which seems to be unarrestable.



NEW SUCCESS FOR AKOMAG



Recently the company delivered, installed and tested a new machine intended for washing recycled glass bottles. The machine for the PepsiCo group is a Hydra 8.2, characterised by a very high production: 37,500 bottles/h. The new model, the pride of mechanical Made in Italy, reaches a mechanical efficiency equal to 99.4%, successfully exceeding the standards required by the customer in the contractual phase. With this new provision, Akomag confirms itself once again as world leader in the construction of glass bottle washers.

The bottle washer has been specially designed in order to minimise the environmental impact, with particular attention to water and steam consumptions, and to the duration of the detergent bath.

The completely automated wash cycle includes an initial bottle-emptying station followed by a pre-wash spraying and first pre-soak bath that significantly reduces detergent bath pollution and markedly decreases consumption levels.

In the pre-soak area the project also provides for the installation of a belt filter that allows to automatically remove the main impurities typical of recycled bottles (straws, paper, cigarette butts, for instance). The washing of bottles is completed with the internal and external high-pressure detergent wash sprays, using self-cleaning and self-centring rotating nozzles.

ความสำเร็จใหม่สำหรับ AKOMAG

ไม่กี่ไม่นานมานี้ บริษัทมีการส่งมอบ ติดตั้ง และทดสอบเครื่องจักรใหม่ที่มีวัตถุประสงค์สำหรับการล้างขวดแก้วรีไซเคิล เครื่องจักรสำหรับกลุ่ม PEPSICO คือ HYDRA 8.2 มีคุณสมบัติความเร็วการผลิตสูงถึง 37,500 ขวด/ชั่วโมง เครื่องจักรรุ่นใหม่ ซึ่งเป็นความภาคภูมิใจที่ผลิตในอิตาลี มีประสิทธิภาพเชิงกลสูงถึง 99.4% ซึ่งเกินจากมาตรฐานที่ลูกค้ากำหนดไว้ ในระยะสัญญาเสียอีก ด้วยการจัดหาครั้งนี้ AKOMAG จึงได้ยืนยันตัวเองอีกครั้งในฐานะผู้นำระดับโลกสำหรับการประกอบเครื่องล้างขวดแก้ว เครื่องล้างขวดได้รับการออกแบบมาเป็นพิเศษเพื่อลดผลกระทบต่อสิ่งแวดล้อม โดยให้ความใส่ใจเป็นพิเศษที่การใช้น้ำและไอน้ำ และระยะเวลาการล้างในน้ำยาทำความสะอาด วัฏจักรการล้างอัตโนมัติครบวงจรนี้ประกอบด้วย สถานีเทขวดขึ้นต้นตามมาด้วยการพ่นสเปรย์ก่อนล้าง และการแช่ครั้งแรก ซึ่งช่วยลดมลพิษจากการอาบน้ำยาทำความสะอาดได้อย่างมีนัยสำคัญ และช่วยลดระดับการใช้น้ำยา



Mains water for spray-rinsing

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

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

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

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

ได้มาก ในบริเวณก่อนแช่ โครงการยังติดตั้งตัวกรองสายพานที่ช่วยขจัดสิ่งเจือปนหลัก ๆ ที่พบกันบ่อยสำหรับขวดรีไซเคิล (หลอด กระดาษ ก้นบุหรี่ เป็นต้น) การล้างขวดในขั้นตอนสุดท้ายคือการพ่นสเปรย์ล้างด้วยน้ำยาแรงดันสูงทั้งภายในและภายนอก โดยใช้หัวฉีดหมุนที่ทำความสะอาดและจัดศูนย์ได้ด้วยตัวเอง ท่อน้ำเมนสำหรับการล้างแบบพ่นสเปรย์

ในการออกแบบ HYDRA 8.2 AKOMAG เน้นที่การสเปรย์ล้างขั้นสุดท้ายโดยใช้น้ำจากท่อเมน ข้อดีที่พัฒนาขึ้นระหว่างขั้นตอนการออกแบบช่วยให้ได้ผลลัพธ์ที่น่าทึ่ง ด้วยการติดตั้งวาล์วพิเศษที่มาพร้อมกับมาตรวัดการไหลในตัวลงบนท่อเมน (ควบคุมโดยตรงผ่านแผงควบคุม) จึงช่วยให้สามารถตรวจสอบการใช้น้ำประจำวันได้ทันทีนั้นเป็นไปได้ ซึ่งจำเป็นสำหรับการล้างขวดอย่างถูกต้อง ช่างเทคนิคของ AKOMAG ประกาศด้วยความภาคภูมิใจและความพึงพอใจว่า ด้วยการออกแบบใหม่ เครื่องจักรรุ่นใหม่นี้ใช้น้ำเพียง 0.098 ลิตรต่อขวดเท่านั้น ซึ่งเป็นค่าต่ำกว่าค่าที่ลูกค้ากำหนดไว้ในระยะสัญญาอย่างมาก



HYDRA 8.2

AKOMAG



Akomag is a flexible and dynamic company that bases its policy on customer satisfaction,

the quality of its systems, its assistance services and technological innovation. Akomag has been working for several years in the bottling sector and thanks to the proven experience developed in this field, the company can guarantee to its customers maximum yields, user-friendly operation and minimum operational costs, as well as long working life of its machines built with top quality materials. From the province of Parma, Akomag aims to meet the needs of all those who are looking for high quality products. 🏭

www.akomag.com



การจัดหาครั้งนี้เสร็จสมบูรณ์ลงได้พร้อมด้วยนวัตกรรมทางเทคโนโลยีอื่น ๆ มากมาย ได้แก่ เซ็นเซอร์เพื่อชะลอหรือหยุดเครื่องจักรในกรณีที่ขวดหายหรือขวดติดขัดบนสายพานลำเลียง ระบบซีจีโครโนซ์ความเร็วของเครื่องล้างขวดกับความเร็วของเครื่องบรรจุแบบโมโนบล็อก การควบคุมและการใช้น้ำยาทำความสะอาดและสารเติมแต่งในน้ำล้าง รวมถึงการควบคุมและการใช้สารซีเคสเทรนต์/สารฆ่าเชื้อในถังสเปรย์ตัวกรองทำความสะอาดตัวเองได้ในถัง การยกขวดขึ้นและลงอัตโนมัติ ซึ่งระบบเหล่านี้ทำงานสอดคล้องกันกับการเคลื่อนไหวของสายพานหลักอย่างสมบูรณ์แบบ AKOMAG เป็นบริษัทที่ยืดหยุ่นและมีพลัง ซึ่งมีนโยบายในการสร้างความพึงพอใจให้ลูกค้า

สร้างระบบที่มีคุณภาพ และการบริการช่วยเหลือ รวมถึงนวัตกรรมเทคโนโลยี AKOMAG ทำงานมาหลายปีในธุรกิจด้านการบรรจุขวดและด้วยประสบการณ์ที่พิสูจน์แล้วซึ่งพัฒนาขึ้นในด้านนี้ บริษัทจึงรับประกันผลผลิตสูงสุด การทำงานที่เป็นมิตรต่อผู้ใช้งาน และต้นทุนการดำเนินการขั้นต่ำ รวมไปถึงอายุการใช้งานของเครื่องจักรที่สร้างมาด้วยคุณภาพที่ดีที่สุดให้แก่ลูกค้าได้ บริษัท AKOMAG จากเมืองพาร์มา มีเป้าหมายที่จะตอบสนองความต้องการของทุกคนที่กำลังมองหาผลิตภัณฑ์คุณภาพสูง 🏭

www.akomag.com

PISTONS FILLERS WITH HIGH LEVEL OF AUTOMATION AND AUTOMATIC CLEANING SYSTEM

Zilli & Bellini provides the design and the construction of a wide range of machines to fill food products into rigid containers. We also supplied several solutions to add fruits particles in beverages products like for example: orange sacs, diced pineapples, mango pulp, peaches,... Zilli & Bellini also provides solutions for closing the containers.

The machines can handle bottles, jars, cans, made of tin plate, aluminium, glass and plastic having a capacity up to 5 Kg. The food products range is wide: powders, fruit cocktail, Chocó paste, vegetables, tomato paste, sauces with or without pieces, meat, oil, ghee, fish, ready meals,... The speed of Zilli & Bellini filling and seaming lines can be from 10 to 1200 containers per minute.

Zilli & Bellini research and development is the focus of its success. We have developed our technologies having in mind the main focus of our Customers: to be fast in changing the containers sizes and to obtain the requested sanitary standards with the automatic cleaning of the filler after the production.

Regarding the pistons fillers the innovations and improvements are enormous.

Few years ago Zilli & Bellini introduced on the market a new generation of pistons fillers (Plunger valve pistons fillers) with a better





Zilli & Bellini is present in 76 different countries; about two thousand Zilli & Bellini machines are now working worldwide!

ฟิลเลอร์ลูกสูบประสิทธิภาพสูง ระบบอัตโนมัติ และระบบล้างอัตโนมัติ

ZILLI & BELLINI มีสินค้าทั่วโลกมากกว่า 76 ประเทศ และยังมีเครื่องจักรมากกว่า 2000 ชิ้น ที่ยังคงทำงานอยู่ในทั่วทุกมุมโลก บริษัท ZILLI & BELLINI

บริษัท ZILLI & BELLINI บริษัทออกแบบและผลิตเครื่องมืออุตสาหกรรม สำหรับการบรรจุผลิตภัณฑ์ประเภทอาหารและเครื่องดื่มลงในบรรจุภัณฑ์ นอกเหนือจากการผลิตเครื่องมืออุตสาหกรรมนานาชนิด บริษัท ZILLI & BELLINI ยังมีโซลูชันทางเคมี สำหรับเพิ่มความเข้มข้นของผลไม้ในผลิตภัณฑ์ที่ทำจากผลไม้ เช่น เนื้อมะพร้าว, สับปะรดหั่นสี่เหลี่ยมลูกเต๋า, เยื่อมะม่วง และลูกพีช

นอกจากผลิตภัณฑ์โซลูชันสำหรับอาหาร บริษัท ZILLI & BELLINI ยังได้ทำการจัดจำหน่ายสารสำหรับการปิดผนึกบรรจุภัณฑ์อีกด้วย เครื่องจักรของบริษัท ZILLI & BELLINI เป็นเครื่องจักรเฉพาะทางสำหรับการบรรจุและปิดผนึกขวด โหล กระป๋อง ทั้งกระป๋องดีบุกและกระป๋องอลูมิเนียม บรรจุภัณฑ์แก้ว และพลาสติก และสามารถรองรับปริมาณบรรจุภัณฑ์ได้ถึง 5 กิโลกรัม และเครื่องจักรของบริษัท ZILLI & BELLINI สามารถบรรจุอาหารได้หลากหลายชนิด เช่น อาหารรูปแบบผง ซ็อกโกแลต ผัก ซอสมะเขือเทศชนิดข้น และซอสต่างๆ ทั้งแบบมีเนื้อและไม่มีเนื้อ เนื้อมะพร้าว น้ำมัน เนยใส ปลา และอาหารสำเร็จรูปพร้อมรับประทาน เครื่องจักรของ ZILLI & BELLINI สามารถปิดผนึกและปิดกระป๋องไลน์ละ 10 – 1200 ชิ้น ต่อนาที

หัวใจหลักของความสำเร็จของบริษัท ZILLI & BELLINI คือการวิจัย และการพัฒนาเทคโนโลยีที่ตรงต่อความต้องการของลูกค้า ซึ่งก็คือการพัฒนาประสิทธิภาพความเร็วในการเปลี่ยนบรรจุภัณฑ์ และยังคงรักษามาตรฐานความสะอาด ด้วยระบบน้ำร้อนทำความสะอาดลูกสูบอัตโนมัติหลังทุกการใช้งาน

ระบบฟิลเลอร์ลูกสูบของ ZILLI & BELLINI ได้มีการพัฒนา และปรับเปลี่ยนนวัตกรรมฟิลเลอร์ลูกสูบในหลายๆด้าน เช่น วาล์วลูกสูบในระบบฟิลเลอร์ลูกสูบ ซึ่งจะเพิ่มความแม่นยำในการทำงานมากขึ้น เนื่องจากการออกแบบพิเศษของตัววาล์ว

ระบบฟิลเลอร์วาล์วลูกสูบของ ZILLI & BELLINI ถูกออกแบบด้วยระบบ CIP หรือระบบการทำความสะอาดโดยไม่ต้องถอดชิ้นส่วน ระบบทั้งหมดนี้ถูกควบคุมผ่าน PLC หรือหน้าจอร์บบควบคุมการทำงานของเครื่องจักร ซึ่งเป็นรูปแบบระบบทาสกรีน ซึ่งประกอบไปด้วยคำสั่งพิเศษ ที่สามารถถอดกระบอกสูบผ่านการ



filling accuracy due to the new concept of the valve. The plunger pistons fillers for some applications is the nonplus ultra of the food technology also because it is possible to make a C.I.P. completely controlled by the PLC and without to dismantle any part of the filler. The plunger pistons fillers C.I.P match the higher hygienic standards and minimize the maintenance time.


The grate success of the plunger pistons fillers push Zilli & Bellini to go on in the way of the innovation in pistons fillers machines.

The idea in the pistons fillers with standard rotary valve is to make a C.I.P. controlled by the PLC. With this upgrade it is possible to press the touch screen and a mechanical device take out the pistons from the cylinders. With this operation you can run an extremely efficient washings cycle in a very easy way; also the inspection of the seals is very easy and quick.

The main advantages of the automatic cleaning system are: constant cleaning results, less risks linked to the skill of the operators and fixed cleaning time for the production department planning.

For each different container size and for each different product it is possible to fix the parameters and the operators just have to recall it by the HMI. In this way it is possible to be flexible and fast.

The deep experience of Zilli & Bellini technical staff grant to their customers a great consultant activity. It is available a testing services with prototypes in order to carry on study of feasibility of Customer's projects.

Zilli & Bellini is beside its Customers in developing technologies to improve the quality and the efficiency in food industries. 

www.zilli-bellini.com



สั่งการควบคุมเพื่อเพิ่มประสิทธิภาพในการทำความสะดวกระบอบกสูบ ทางบริษัท พร้อมให้ลูกค้าทดสอบผลิตภัณฑ์ และเครื่องจักรสำหรับโปรเจกของลูกค้

ระบบทำความสะอาดอัตโนมัติของ ZILLI & BELLINI ช่วยลดความเสี่ยงต่อผู้ปฏิบัติการเครื่องจักร และเพิ่มประสิทธิภาพในการวางแผนการผลิต

เครื่องจักรของ ZILLI & BELLINI ทำให้การปรับเปลี่ยนขนาดของบรรจุภัณฑ์มีความง่ายมากขึ้น จาก การป้อนคำสั่งในระบบ HMI ของตัวเครื่องจักร เพียงเท่านี้ก็สามารถเพิ่มประสิทธิภาพในการทำงานได้มากขึ้น

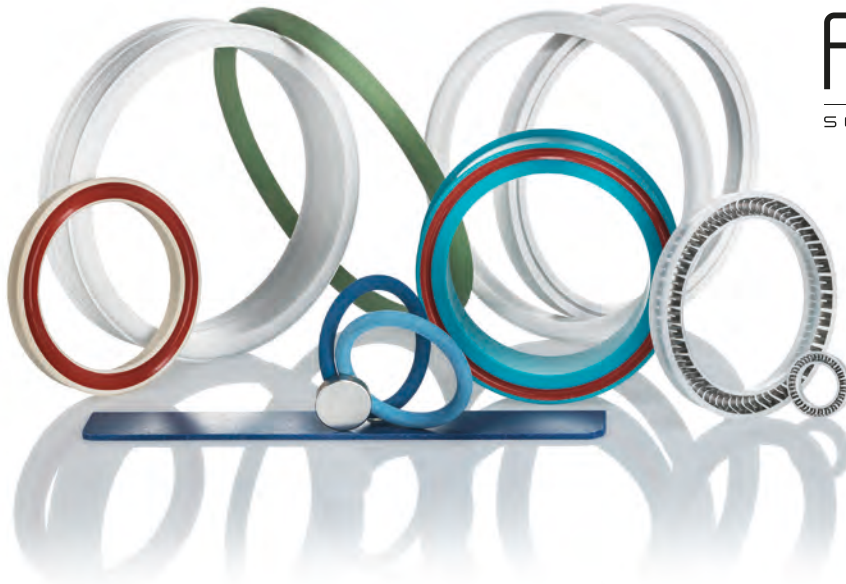
ทางบริษัท ZILLI & BELLINI พร้อมให้บริการลูกค้าทุกท่าน ด้วยพนักงานที่มากประสบการณ์ เพื่อความสำเร็จของลูกค้า และเพื่อเพิ่มคุณภาพการทำงานในอุตสาหกรรมอาหาร. 

www.zilli-bellini.com





HIGH PERFORMANCE SEALING SOLUTIONS



FRIDLE
GROUP
SEALING EXPERTS

Fridle Group, Italian leader in the distribution of sealing systems and fluid connectors, has expanded its range of high-performance sealing solutions for the food and beverage industry.

The processes of the food and beverage sector increasingly require effective sealing on equipment with rotating shafts.

The critical aspects of this type of application are: guaranteeing the efficiency of operation without lubrication, allowing the sterilisation cycles foreseen by the applicable rules and regulations, and using materials compatible with food products.

Fridle Group has introduced in its range of products a complete line of lip seals in thermoplastic mate-



ทางเลือกของการซีล บรรจุภัณฑ์สมรรถนะสูง

FRIDLE GROUP ผู้นำด้านการจัดจำหน่ายระบบซีล และข้อต่อสำหรับของเหลว จากประเทศอิตาลี ได้เพิ่มศักยภาพในการปิดผนึกสำหรับอุตสาหกรรมอาหารและเครื่องดื่ม กระบวนการของอุตสาหกรรมอาหารและเครื่องดื่มที่ต้องการเพิ่มประสิทธิภาพของการปิดผนึกสำหรับอุปกรณ์ที่มีซีลเพลเป็นส่วนประกอบ ลักษณะเด่นที่สำคัญของการใช้งานประเภทนี้คือ: มีการรับประกันประสิทธิภาพขณะการใช้งานโดยไม่ต้องใช้สารหล่อลื่น ช่วยให้รอบการทำงานของระบบสเตอริไลซ์ เป็นไปตามกฎ ระเบียบ ข้อบังคับและใช้วัสดุที่ปลอดภัย สามารถใช้กับผลิตภัณฑ์อาหาร FRIDLE GROUP ได้เปิดตัวสินค้าในกลุ่มผลิตภัณฑ์ปิดซีลฝากระป๋องได้แบบสนิท ด้วยวัสดุประเภทเทอร์โมพลาสติกสำหรับภาชนะอุตสาหกรรมนี้โดยเฉพาะ และยังสามารถปรับแต่งแอปพลิเคชันให้เข้า



rial especially for this sector and capable of adapting to the most demanding applications.


The materials used are certified according to FDA and EU (1935/2004) standards, and contain self-lubricating fillers with high wear resistance. The chemical inertia of the compound protects the seal through several sterilisation cycles; it is also possible to manufacture products that restrict the formation of residue on the surface of the seal itself.

The lip seal in thermoplastic materials represent the evolution of the rotary shaft seal for applications in the food and beverage industry.

If it is necessary to guarantee the absence of contaminants in the fluid being processed, the elastomer “Metal & X-Ray Detectable” solutions offered by Fridle Group allow the constant monitoring of the product throughout processing.

These types of innovative materials, certified according to FDA, 1935/2004 and USP class VI standards, have been developed as a response to the ever more rigorous requirements of the food processing sector and the pharmaceutical industry.

In fact, these materials can come into direct contact with the foodstuffs being processed and allow the efficient identification of any type of contamination from elastomer components in the sealing systems with X-ray line checks.


Fridle Group offers several types of seals made of this material: O-rings, flange gaskets, water-jet-cut flat seals, special seals manufactured with flange or sleeve turning. 

www.fridle.it



กับความต้องการใช้งานได้มากที่สุด
วัสดุทั้งหมดได้รับการรับรองมาตรฐานจากองค์การอาหารและยาแห่งสหรัฐอเมริกา(FDA) และการควบคุมวัสดุที่สัมผัสอาหาร EU (1935/2004) มาตรฐานสหภาพยุโรป และยังสามารถเติมหล่อลื่นเองโดยอัตโนมัติเพื่อความทนทานต่อการเสียดสี ความเฉื่อยทางเคมีของสารนี้จะช่วยปกป้องซีลจากกระบวนการสเตอริไลส์ที่เกิดขึ้นหลายครั้ง หรืออาจเกิดจากการก่อตัวของสารตกค้างบนพื้นผิวของตัวซีลเอง ที่อาจเกิดขึ้นได้ระหว่างการผลิต การซีลโดยใช้วัสดุประเภทเทอร์โมพลาสติก แสดงให้เห็นถึงพัฒนาการของการปิดผนึก โดยใช้ซีลพลาสติกสำหรับการใช้งานในอุตสาหกรรมอาหาร และเครื่องดื่ม

ถ้าหากจำเป็นต้องรับประกันว่าจะ ไม่มีสิ่งปนเปื้อนใด ๆ ในของเหลวที่อยู่ในกระบวนการผลิต อีลาสโตเมอร์หรือโพลีเมอร์อสังฐานนั้นมีความปลอดภัยในการนำมาใช้เป็นวัสดุที่พื้นผิวสัมผัสอาหาร เครื่องจักรและอุปกรณ์แปรรูปอาหาร “ METAL & X-RAY DETECTABLE” ที่ทาง FRIDLE GROUP นำเสนอเป็นทางเลือก ก็ช่วยให้สามารถตรวจสอบผลิตภัณฑ์ได้อย่างต่อเนื่องตลอดสายการผลิต วัสดุทุกชิ้นที่ประกอบขึ้นเป็นงานวิศวกรรมนี้ ได้รับการรับรองตามมาตรฐาน องค์การอาหารและยา เลขที่ 1935/2004 และ USP CLASS VI จากสหรัฐอเมริกาซึ่งถูกพัฒนามาเพื่อตอบสนองต่อข้อกำหนดที่เข้มงวดของภาคธุรกิจการแปรรูปอาหาร และอุตสาหกรรมยา

ในความเป็นจริงแล้ว วัสดุเหล่านี้สามารถสัมผัสโดยตรงกับอาหารระหว่างกระบวนการการผลิต ที่ ช่วยให้สามารถบอกระดับการปนเปื้อนของสิ่งแปลกปลอม จากส่วนประกอบอีลาสโตเมอร์ในระบบซีล ซึ่งสามารถตรวจสอบโดยเครื่อง X-RAY แบบสายพาน นอกจากนี้ FRIDLE GROUP ยังมีซีลอีกหลายชนิด จากวัสดุประเภทต่าง ๆ เช่น แหวนยางโอริง ปะเก็นหน้าแปลน ระบบตัดด้วยน้ำแรงดันสูง การปิดซีลชนิดพิเศษด้วยหน้าแปลน หรือข้อต่อหมุนไว้สำหรับจัดจำหน่ายอีกด้วย 

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“INFORMA MARKETS ” IS CONFIDENT IN THE POTENTIAL SUCCESS OF “PROPAK ASIA 2023 ”

making over 8 zones to accommodate 40,000 visitors
and celebrate the 30th anniversary of the event
14-17 June at BITEC Bangna



Informa Markets Thailand gears forward to host ProPak Asia 2023 on June 14-17, 2023, at BITEC, Bangna, reaffirming its readiness to welcome over 40,000 entrepreneurs. The event this time has been revamped with 8 zones to be exhibited and celebrate the 30th anniversary, spotlighting the status of upstream soft power in part of food to introduce Thai food to the global arena through innovative processing and packaging technology while driving business on the basis of the BCG Model for sustainability.

Ms. Rungphech Chitanuwat, Regional Portfolio Director - ASEAN, Informa Markets Thailand, the organizer of ProPak Asia 2023, said: “Marking the 30th anniversary this year, ProPak has experienced challenges and triggers for improvements before it achieves this milestone. At ProPak, we aim beyond an exhibition platform, thus being a connector that connects upstream business (processing, packaging) to the downstream business (entrepreneurs). What’s special this year is that

we noticed changes in markets as cutting-edge technology emerged. This emergence indeed is a way to add value to products of M-SMEs and farmers who could improve their packaging and strengthen competitiveness of their creation. With this success, it contributes to steering the community to feed products to the industrial market. This year, we have collaborated with the Food Innovation and Packaging Center, Chiang Mai University, in a pilot project to acquire and introduce community products to the global arena. Not only that, L-SMEs will also experience Tech Solutions that will fulfill their business needs. The event is hence truly a one-stop place to visit.”

Ms. Rungphech added that: “At this year’s event, we are focusing on the theme of 4S (Supply Chain, Safety, Security, and Sustainability) in driving the economy of food industry, both directly and indirectly, through our 8 unmissable zones, including Processing Tech Asia, Packaging Tech Asia, Drink Tech Asia, Pharma Tech



Ms. Rungphech Chitanuwat

Asia, Lab&Test Asia, Packaging Solution Asia, Coding, Marking & Labeling Asia, and Coldchain, Logistics, Warehousing & Factory Asia. Highlights of this year are:

- Investment Clinic: As a collaboration with the BOI, entrepreneurs, SMEs, startups can seize an opportunity to consult with financial experts about their investment, business planning, business scale-up and development.
- Post-Harvest Tech Zone: In collaboration with the Food Innovation and Packaging Center, Chiang Mai University, this zone is to showcase techniques for agricultural product storage and manufacturing process, e.g., storing, packaging, distributing.
- Lab & Test Theater: In collaboration with INNOLAB, it encourages everyone to visit technological labs dedicated for food, beverages, medicines and personal care development.

As for the public sector, the event is honored by Dr.Pattra Maneesin, Deputy Governor Industrial Services, Thailand Institute of Scientific and Technological Research (TISTR), who said: "The Thailand Institute of Scientific and Technological Research (TISTR) has been an active partner with ProPak Asia. This year, the Institute is presenting research, scientific, technological and innovative services in the TISTR Total Solutions theme, comprehensively empowering entrepreneurs through science, technology, and innovation so that they can take bold steps in the industry, work against international standards, and be competitive in both domestic and international markets. Besides, it will showcase end-to-end research and service findings, covering agriculture, food, health and medicine, packaging while research and developments for recycling are also a focus. The TISTR provides Packaging Testing Services, e.g., for packaging materials (paper, plastic, metal); Biodegradable Material Test for transport packaging, retail packaging, dangerous goods packaging; Performance Test; as well as packaging design and development, e.g., labels and packages.

A representing entrepreneur to attend ProPak Asia 2023, Dr.Ongart Kittikhunchai Chief Executive Officer, Sunsweet Public Company Limited, mentioned future food trends during the press conference in an interesting way. "Food of the future will be subjected to significant changes. Considering the environment and the increasing number of populations, food must be supplied sufficiently, not only in terms of amount, but also its nutritious contents. This thus can be a key turning point. Apart from that, food security is essential in all food businesses, regardless of locations. If we cannot catch up with the trend, we can be disrupted in the future. With respect to this, Sunsweet has engaged in product research and development (R&D), seeking new opportunities by leveraging knowledge, technology and transformation approaches. It has aligned innovative food products with consumer needs. Product demands in the global market become more intense after security events set in, which can actually be regarded as a market opportunity for exportation. On the part of the company itself, it achieved a 30% growth. Products that offer a longer shelf life in form of cans obtained a greater demand.

Ms.Kanoknaphat Pachreang, General Manager, Strategy and Business Development, Kasetphand Industry Co., Ltd., mentioned adoption of the BCG model in boosting 3 business dimensions. "The BCG model is not something new, as it is a principle further developed from a strong foundation rooted in Thailand, integrated and extended to the chain of goods and service pro-

latest news

duction, especially in 4 s-curve industries. From an entrepreneur's perspective, this is about self-reliance and it is forming the basis of sustainable development, as it harnesses the strengths of our country, including biodiversity and cultural diversity. The two are combined with knowledge and innovation to enhance products even better.

The first return as a result of this is greater competitiveness, especially when it comes to innovation. Innovation brings changes as competition becomes intense and potential increases, and that means our income and environmental consciousness will be positively influenced.

This is in line with the United Nations' Sustainable Development Policies and Goals. If we can achieve this, we shall be able to pave the way for the country to the leading position in the 4 s-curve industries. Regardless of external factors, changes in climate, energy or food shortage, if the BCG model can be applied effectively, I believe all problems can be addressed.

Mr.Karan Tejasen, Chairman of the Board of VexCel Pack Co., Ltd., and Chief Operating Officer, SCG Packaging Public Company Limited, discussed the trend of packaging business. "Changes in demographics and lifestyles are conducive to the increasing use of packaging while packaging tends to be more func-

tional and enhances convenience for users. As consumers are turning to greener alternatives, the choice becomes a factor that plays a key role in fueling growth of paper and alternative packaging solutions, e.g., packaging designed to use fewer materials, reusable and effortlessly recyclable, green and resource efficient.

Moreover, the rising trend of e-commerce and omni-channel retail models are major growth factors of the packaging market in the region.

Correspondingly, Mr.Theeraphon Nimitvanich, Chief Operating Officer, Eka Global Company Limited, commented: "Packaging contributes to a considerable influence on consumers, consumption behavior, purchase decisions, as, for example, it attracts consumers, being attractive and appealing while also engaging. Packaging can strengthen bonds between consumers and the product. Moreover, it can carry product information and benefits; for instance, properties and usage. It adds brand values, protects the content within and enhances durability – a way to confirm that a specific product remains intact and in a condition expected.

The 30th trade and innovation exhibition for manufacturing, processing, and packaging industries ProPak Asia 2023 will be held between June 14 – 17, 2023, at BITEC Exhibition and Convention Center, with pre-registration available at <https://bit.ly/408qfqD>





IBA 2023: TICKET SHOP OPENS FOR VISITORS

Tickets for iba are now available for visitors to purchase online. The world's leading trade fair for the baking and confectionery industry is inviting the global bakery industry to gather at the Fairground Munich from 22 to 26 October 2023. More than 95% of the exhibition space is already booked and the first highlights for visitors this autumn have been scheduled.

Five days, ten halls and one international meeting point for industry experts; October 2023 is all about iba and the innovative drive, variety, quality, international market relevance, new contacts and knowledge transfer that it offers. Spotlight on iba.TOPICS. From 2023 onwards, these will

comprise the familiar product range and newly introduced focus topics. The focus topics are food trends, artisan bakery, health and sustainability as well as digitalisation, turnkey solutions and quality management.

These topics highlight the industry's most significant trends, unite supply and demand and offer future direction. They form the central theme of the event and are reflected in presentations, action areas and product ranges at iba.

First programme highlights for 2023

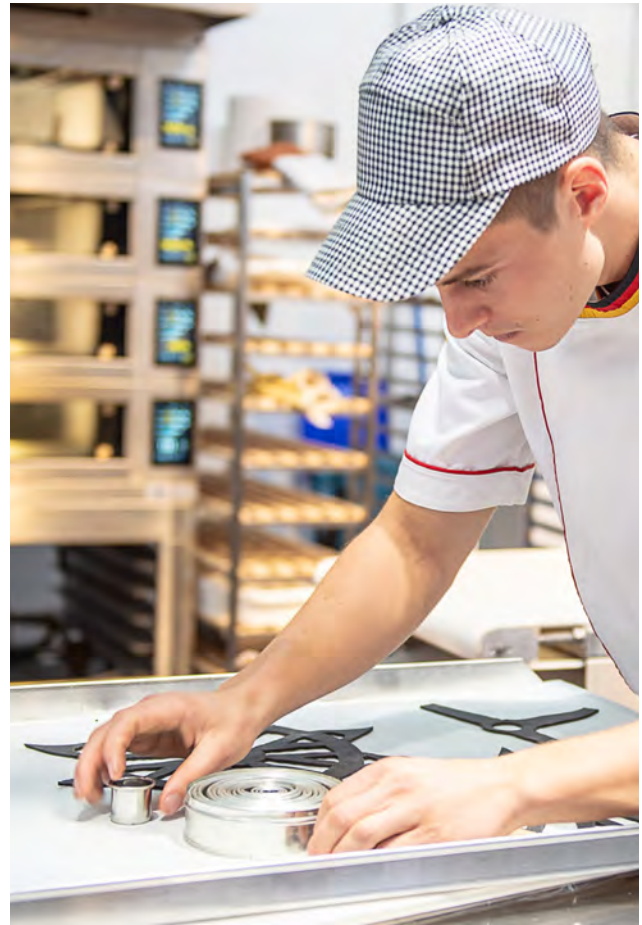
Visitors can look forward to many well-known and successful highlights and action areas as well as





new programme items that expand the portfolio. For example, the iba.SPEAKERS AREA will become the hub for specialist presentations, discussions and networks with an international focus.

The iba.FORUM will provide interesting information on all aspects of the national baking and confectionery industry with a focus on German skilled bakery crafts and will serve at the same time as the stage for the many award ceremonies. This will be where, among others, the iba.UIBC.CUP of Bakers 2023 and the iba.UIBC CUP of Confectioners 2023 will be awarded. In addition, the specialist bakery industry newspaper ABZ – Allgemeine Bäcker Zeitung – will be awarding the title of “Bäcker des Jahres” (Baker of the Year) and “Ausbilder des Jahres” (Trainer of the Year) for the first time at the iba.FORUM on Sunday 22 October 2023. Another new feature for October will be the iba.START UP AREA supported by Puratos. National and international start-ups will be given their own stage in hall A4. Here the next generation of innovators and entrepreneurs will demonstrate how they are revolutionising the bakery landscape. Renowned experts will supplement the programme with keynote speeches on topics affecting the industry. More details and new features on the programme for 2023 will be announced very soon.





iba up close: live demonstrations, exhibition and stollen certificate

Through sensations of smell, taste, touch and awe, visitors can experience and seek advice on the production chain from start to finish through live demonstrations of products and machines across 10 halls at iba. Another experience is the iba.UIBC CUP in hall A4.

Visitors can follow the world-class exhibition in real time and look over the experts' shoulders as they prepare their artworks of bakery. Visitors who then feel inspired to produce their own skilled bakery crafts should head along to the iba.ACADEMY where participants learn how to make traditional German stollen and pretzels and are awarded a certificate at the end.

iba 2023 and iba.BAKERY TOURS: purchase tickets now

Visitors can now purchase their tickets for iba online [here](#). Once again, visitors will be offered the chance to go on bakery tours in Munich and the surrounding regions during iba.

The iba.BAKERY TOURS are organised by the Landesinnungsverband für das bayerische Bäckerhandwerk (Bavarian bakers' guild). The tours are free for visitor groups. It is essential to book early. Visitors can register in advance [here](#). 🏠



EXPERIENCE AND PASSION IN THE MARKET OF MACHINERY FOR PASTRY AND BAKERY



Alba & Teknoservice srl designs and produces equipment for bakery and pastry industry as croissant machines, make-up tables, dough billets preparing systems, laminating lines, ciabatta bread lines, multisize bread lines, pita, num bread, lavash lines, cracker lines, special lines and custom design machines.

The high quality of this equipment is due to the great passion developed in over 30 years of experience. The founders of the company began in 1982 their experience at a renowned company in the industry and in 1992 open Teknoservice Snc, which begin dealing with servicing, repairs and interventions on their own or on behalf of major manufacturers.

The founders' experience gained as CIM and Tekno-matik technicians, a long-time leader companies in the field of machinery for pastry and bakery, leads them to develop projects increasingly complex and technologically advanced, and thanks to continued collaboration with their customers, they realize the first automatic groups for croissants, make-up tables, ciabatta, bread lines and crackers lines and a variety of customized automation.

This ongoing attention to the needs of the customer and assistance in the development of its automation brings Teknoservice to grow more and more, until making the decision in 2005 to transform the company, originally founded as service / intervention, in a leading company in the market of machinery for pastry and bakery: so ALBA & Teknoservice Srl is founded.

Experience, passion, innovation and satisfaction are the cornerstones on which the philosophy of ALBA & Teknoservice is focused on.

Experience over decades of work in the bakery equipment, from simply technical assistance to the realization of industrial plants.

Passion in the development of each product while keeping its essence and improving its quality.

Innovation in the ongoing search for the best, as well as in the study of how to solve the problems of each client with a custom design solution.

Satisfaction: the purpose is customer satisfaction in seeing his product taking shape, his problem solved,



new ideas coming to life. All these factors have led ALBA & Teknoservice to produce extremely performing and customizable Pizza Lines, which are enjoying great success worldwide.

From a simple cutting table to a complete line, ALBA can compose and draw with you the most suitable machine, from lamination or from balls, with or without the topping.

ALBA PIZZA LINES: Choose the best Laminating Lines employ satellites and gauging units which gently reduce the pastry sheet to the final thickness, then cut it into the desired shapes, remove scraps for reuse and collect the product by hand or feed panning systems, proofers, freezers.

Cold-pressing Lines provide synchronized devices that ensure accuracy and consistency in the processing, as well as really innovative systems of pressing the balls, always with the possibility of collecting by hand or automation of the next process.



A new range of pizza lines for products in a high rise, as gluten-free, Kamut, spelt and similar crackers and bread. The increasing demands from our customers and the market have led us to develop specialized lines to produce this brand of products which are having a greater and greater success worldwide. Very simple products in terms of ingredients and appearance, but with a rich taste and great quality, dedicated to the increasingly large number of gluten intolerant and those who want to enjoy healthy nourishment.


BREAD LINE: Line to produce different types of bread Multi-bread is the solution to produce different types of high-quality bread.

This machine can become a component for an industrial plant; in fact, it reaches a production of 1.000 kg/h of dough.

As a Dough Former, it allows you to work all types of bread dough

As a Chunker it allows cutting different programmable sizes without lateral trimming.

As a Weigher it allows great precision for all types of bread: it weighs and cuts what is impossible to do by hand, maintaining the delicacy of manual work.

The reduction to 0 of the lateral waste and the weighing option allow to make productions until yesterday unthinkable, achieving performance close to 100% with leavened and highly hydrated dough up to 80%.. 

www.albaequipment.it





BOSS, AN UNCOMPROMISING OVEN

Real Forni's new rotary oven Boss combines innovation and researches with the yearly experience and tradition



Maximum efficiency, reduced overall dimensions and low consumption are the key features that allow the user to save energy and space, reduce the cost of maintenance and improve the result on the baked product.

A good ventilated baking for a rotary oven consists in the correct distribution of the heat and in the ability to bake the product with a gentle and abundant flow of air: this is the only way to equal the baking of a static oven.

Another ultimate point is the ability of the oven to produce a great quantity of steam in a very short time and to regenerate it for the following baking. Thanks to the steamer positioned in the middle of the air flow, the oven Boss guarantees quickness

BOSS

เตาอบที่ไม่มีใครเทียบติด

เตาอบโรตารี BOSS รุ่นใหม่จาก REAL FORNI ผสมผสานนวัตกรรมและการค้นคว้าวิจัยเข้ากับประสบการณ์และธรรมเนียมที่สืบทอดมานานหลายปี

เป็นเวลาานกว่า 50 ปีที่ REAL FORNI ทำงานพัฒนาเตาอบ และอุปกรณ์สำหรับธุรกิจขนมอบ สนับสนุนผู้เชี่ยวชาญจากทั่วโลก ในภาคธุรกิจด้านอาหารที่สำคัญนี้ เตาอบโรตารี BOSS รุ่นใหม่นี้ผสมผสานนวัตกรรมและการค้นคว้าวิจัยเข้ากับประสบการณ์และธรรมเนียมที่สืบทอดมานานหลายปี จึงทำให้ BOSS เป็นต้นแบบอ้างอิงสำหรับเตาอบในหมวดหมู่นี้

ประสิทธิภาพสูงสุด ขนาดโดยรวมที่เล็กลง และใช้พลังงานต่ำ ทั้งหมดนี้เป็นคุณสมบัติสำคัญที่ช่วยให้ผู้ใช้ประหยัดพลังงานและพื้นที่ ช่วยลดต้นทุนในการบำรุงรักษาและปรับปรุงผลลัพธ์ของผลิตภัณฑ์ที่อบออกมา

การอบที่มีการระบายอากาศที่ดีสำหรับเตาอบโรตารีประกอบด้วยการกระจายความร้อนที่เหมาะสม และความสามารถที่จะอบผลิตภัณฑ์ด้วยอากาศที่ไหลเวียนอย่างอ่อนโยนและเพียงพอ นี่



and power to obtain crumbly products with a crisp crust.

In the planning stage we have worked hard on the consumption and the results are real, indeed the oven Boss 60.80 heats up very quickly and it needs only 50.000

installed kcal/h! This is possible thanks to a system of baking endowed with two powerful fans and an heat exchanger with triple turn of fumes and to a system of insulation consisting in three layers of rock wool compressed panels. As for the consumption, this system is extremely virtuous and with the addition of reduced overall dimensions it is possible to position the oven side by side on its three sides. These features give you the possibility to save a huge quantity of space inside your place in comparison to any other oven in commerce.

The range starts from the smallest 50.70 which is able to contain a trolley of 40x60, 40x80, 50x70 or 18"x26" of 16/18 trays, its reduced dimensions allow the transportation of the oven completely assembled. For trays 60x80 we can offer the classic Boss 60.80 with 18/20 trays or the "reduced" Boss with 16/18 trays (Boss 60.80 R) which is perfect for places not so high.

The range includes also the 60.100 model for trolleys 60x90, 60x100 and 80x80 and the largest Boss 80.100. All models are available with gas or gas-oil burner or electric power supply.

The ovens are provided with a lower platform for the rotative trolley in order to have an easy entry of the trolley, a motorised flue valve and stainless

เป็นวิธีเดียวที่จะได้ผลลัพธ์ที่ทัดเทียมกับเตาอบอยู่กับที่ได้ ประเด็นสำคัญอีกข้อคือความสามารถของเตาอบที่จะสร้างไอน้ำได้ปริมาณมากได้ในเวลาอันสั้น และสร้างไอน้ำรอไว้สำหรับการอบรอบถัดไป เครื่องอบไอน้ำที่ตั้งอยู่กลางการไหลเวียนอากาศทำให้เตาอบ BOSS รับประกันความรวดเร็วและกำลังไฟ เพื่อให้ได้ผลลัพธ์ผลิตภัณฑ์อบที่มีผิวกรอบและเนื้อร่วนได้อย่างดี

ในขั้นตอนการวางแผน เราทำงานอย่างหนักเกี่ยวกับการใช้พลังงาน และได้ผลลัพธ์ที่น่าพึงพอใจแน่นอนว่าเตาอบ BOSS 60.80 ทำความร้อนสูงได้อย่างรวดเร็ว และใช้พลังงานติดตั้งเพียง 50.000 กิโลแคลอรี/ชั่วโมง เท่านั้น! สิ่งนี้เป็นไปได้เนื่องจากระบบการอบใช้พัดลมทรงพลังสองตัว และเครื่องแลกเปลี่ยนความร้อนมีท่อไอร้อนสามทาง และระบบนิรนวนซึ่งประกอบด้วย แผงอัดหินและชั้นฉนวนสามชั้น สำหรับการในพื้นที่ ระบบนี้ประหยัดพื้นที่เป็นพิเศษ ด้วยขนาดโดยรวมที่ลดลง และสามารถวางเตาอบติดกันได้ทั้งสามด้าน คุณสมบัตินี้มอบความเป็นไปได้ให้คุณประหยัดพื้นที่ฐานได้อีกมาก

ภายในสถานที่เมื่อเปรียบเทียบกับเตาอบอื่น ๆ ในการพาณิชย์ กลุ่มผลิตภัณฑ์มีตั้งแต่ขนาดเล็กที่สุด 50.70 ซึ่งสามารถบรรจุรถเข็นขนาด 40X60, 40X80, 50X70 หรือ 18X26 นิ้วของถาด 16/18 ขนาดที่เล็กลงช่วยให้การขนย้ายเตาอบที่ประกอบแล้วได้ทั้งเครื่อง สำหรับถาด 60X80 เราสามารถเสนอ BOSS 60.80 แบบคลาสสิกสำหรับถาด 18/20 หรือ BOSS "แบบลดขนาด" สำหรับถาด 16/18 (BOSS 60.80 R) ซึ่งเหมาะสำหรับสถานที่ที่ไม่สูงนัก

กลุ่มผลิตภัณฑ์เรายังมีรุ่น 60.100 สำหรับรถเข็น 60X90, 60X100 และ 80X80 และขนาดใหญ่สุด BOSS 80.100 ทุกรุ่นมีระบบเตาเผาแก๊สหรือแก๊สน้ำมัน หรือใช้ไฟฟ้า เตาอบจะส่งมอบให้พร้อมเท่านั้นสำหรับรถเข็นมีล้อ เพื่อให้สามารถเข็นรถเข็นเข้าได้ง่าย นอกจากนี้ยังมีวาล์วระบายอากาศ และแผงข้างสแตนเลส






steel side panels. You can choose, as an optional feature, the fume exhaust from the rear wall of the oven or an advanced LCD display programmer.


There is also the brand new innovative and spectacular "Panorama" version which has a glass on the back side that enable the direct view of the baking process inside the oven, which is realized with a double inside glass with a very high insulation and with an external curved and openable glass for maximum safety, cleaning and beauty.

This oven is perfect to separate the laboratory from the sale zone and it can be a great attraction both in shopping centers and in small bakeries because it guarantees a privileged view on the baking process, keeping a clear division between laboratory and commercial zone.

A LCD display inserted on the top, exposed to the public, is also available. This LCD display shows the state and the type of product which is baking (Baguette - ready in 11 minutes) with photos in high resolution. 

www.realforni.com



สตีล คุณสามารถเลือกที่ระบายควันจากผนังด้านหลังของเตาอบ หรือ หน้าจอตั้งโปรแกรม LCD ขั้นสูงเป็นคุณสมบัติเสริมได้ เรายังมีเวอร์ชันนวัตกรรมรุ่นใหม่ที่น่าทึ่ง "PANORAMA" ซึ่งมีแก้วที่ด้านหลังทำให้เห็นกระบวนการอบภายในเตาอบได้โดยตรง โดดเด่นด้วยแก้วสองด้าน ที่เป็นฉนวนอย่างดี และมีแก้วโค้งเปิดได้ที่ภายนอก เพื่อความปลอดภัยสูงสุด และยังทำความสะอาดง่ายและสวยงามอีกด้วย เตาอบนี้เหมาะสำหรับการแยกห้องปฏิบัติการออกจากโซนขายและ สามารถใช้เป็นจุดดึงดูดความสนใจทั้งในศูนย์การค้า และร้านเบเกอรี่เล็ก ๆ เนื่องจากเป็นรุ่นที่รับรองมุมมองที่สวยงามระหว่างที่อบขนม ช่วยให้แบ่งแยกได้อย่างชัดเจนระหว่างโซนห้องปฏิบัติการและโซนขายสินค้า หน้าจอ LCD ซึ่งติดตั้งที่ด้านบนเพื่อแสดงให้คนทั่วไปเห็นยังมีให้เลือกได้ หน้าจอ LCD แสดงสถานะ และประเภทของผลิตภัณฑ์ที่กำลังอบอยู่ (บาแกต - พร้อมใน 11 นาที) พร้อมรูปภาพความละเอียดสูง 

www.realforni.com



EXPERIENCE & QUALITY IN THE BAKERY, PASTRY & FOOD INDUSTRY

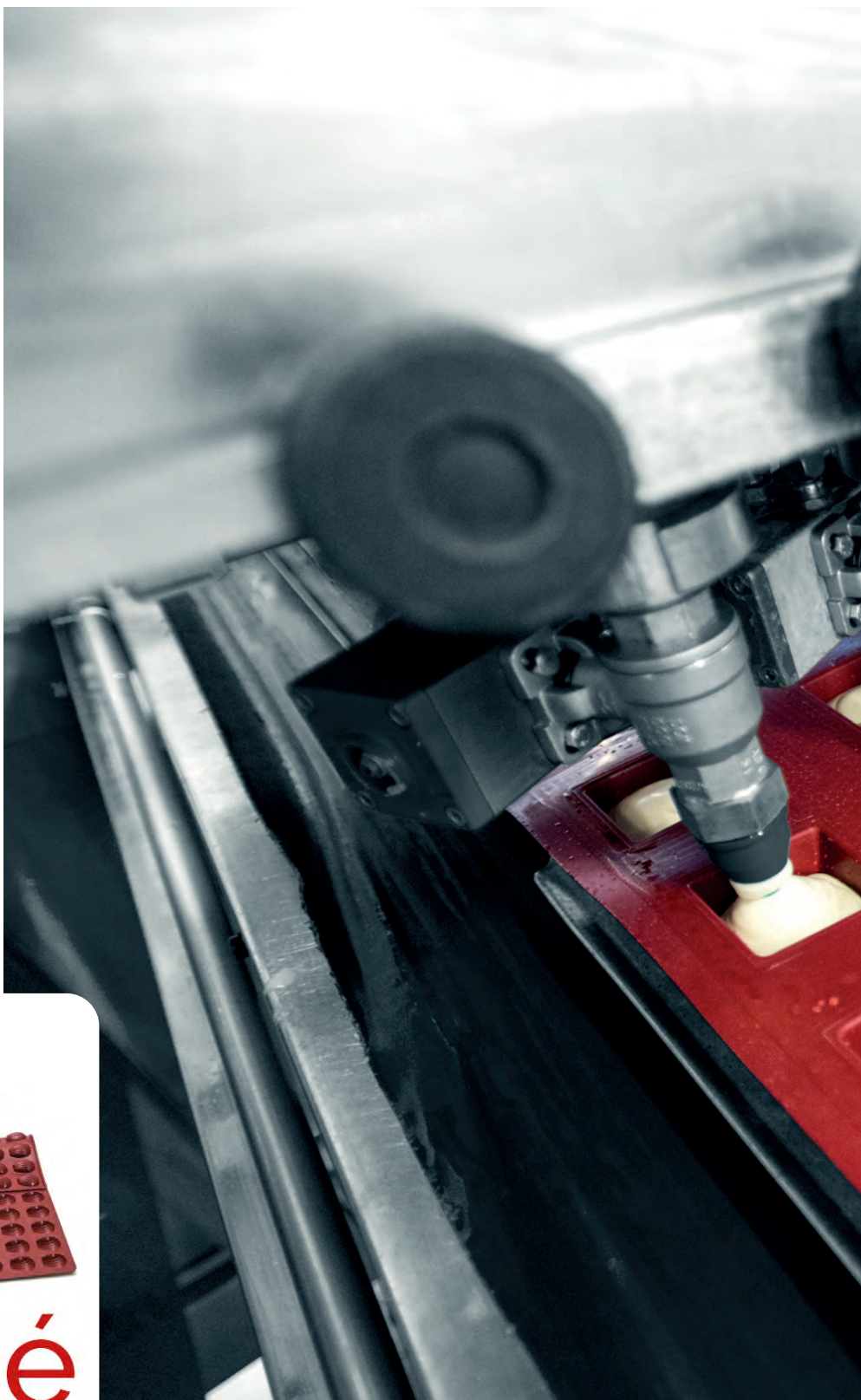
Created in 1994, Maé Innovation is specialized in the engineering and the manufacturing of high-precision silicone moulds, fermentation and baking trays as well as non-stick coatings for intensive uses of the food industry.

Diversity, creativity, customization? Be Silmaé!

Silmaé, 100% premium silicone moulds for industrials and professionals, are suitable for both baking and deep freezing and adapted for pastries, fruit cakes, ice creams, chocolates, sweets, starters, sauces, seafood and meat product, brioches, Viennese pastries, bread and buns.

The silicone used, SILO35, has been selected for its mechanical properties and its resistance to high temperatures (+280°C) and deep freezing by mechanical cold or cryogenics respecting the recommendations for use.

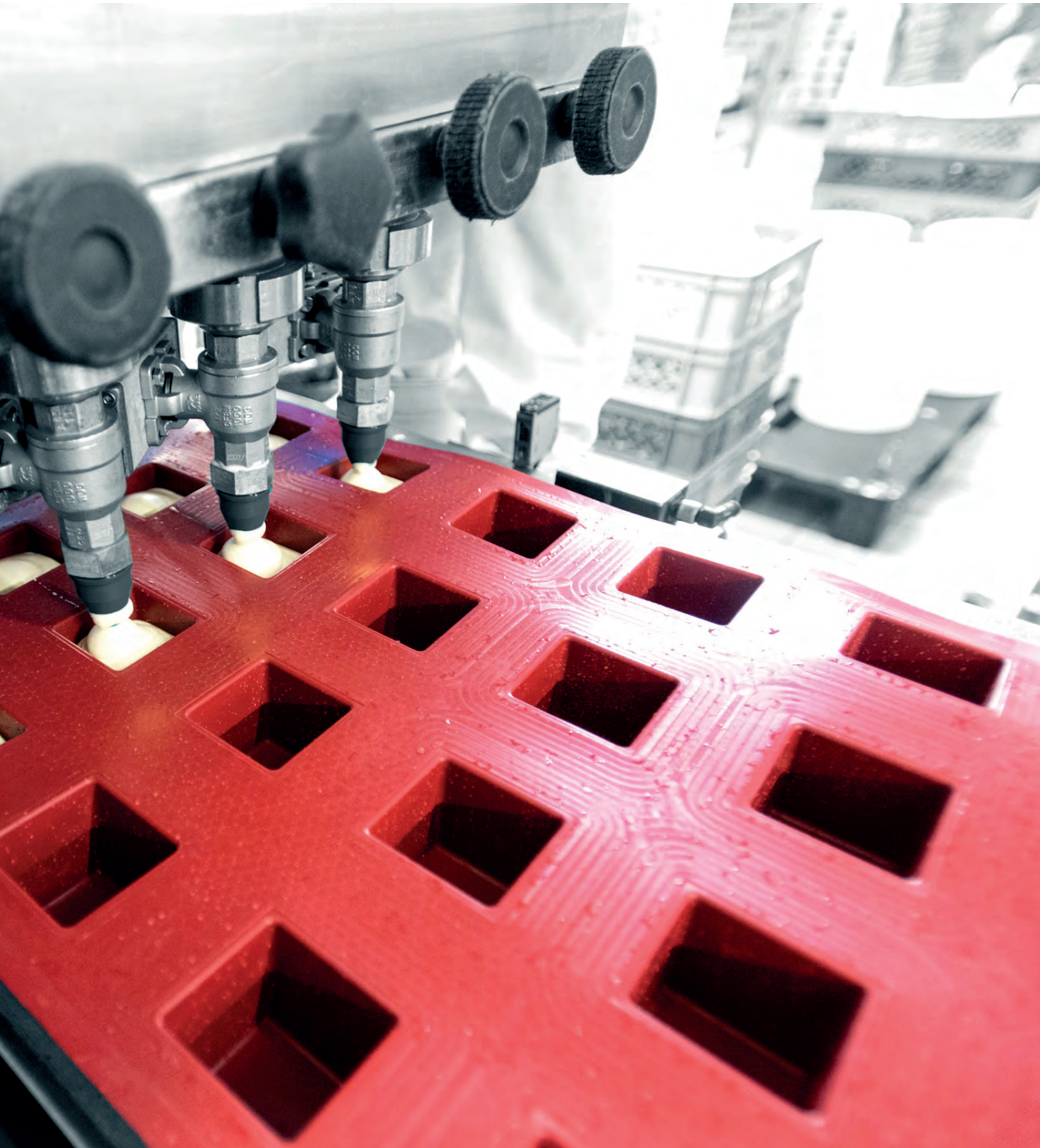
Silmaé is commonly used on automated production lines and complies with the highest French (NF 1186 & 25/11/1992 or



SilMaé



Maé
Creates your Mould



FOOD
processing



der), European (Regulation EC n°1935/2004 & EU n°10/2011) and American food standards. The system provides complete traceability for each item, reinforcing the Maé's strong reputation in the food industry.

Maé offers a wide range of standard Silmaé moulds with more than 250 references in its catalogue but is also able to customize your mould.

Thanks to its dedicated organization, 3D CAD and prototypes, its designers create the shapes and moulds according to its clients' constraints and production environment.

Many firms are automating their production and call upon Maé to comply with certain dispensing spacings and to insert systems for mould stripping and/or washing.

Over 300 tailor-made projects are developed each year, in large or small production runs, with unrivalled value for money on the market.

Many formats are available: pastry format (400x600mm), GN1/1 (400x300mm), individual format and other dimensions to several meters of baking mats.

The largest food companies trust Maé's know-how from all over the world!

Specially designed for baking LOAVES, BRIOCHES, HAMBURGER BUNS, CIABATTA, HOT DOG ROLLS OR SANDWICHES, CHOUX PASTRY, TARTS, PUFFS and ECLAIRS.

Fibermaé are easy to use, and suitable for all types of fresh or frozen dough, for salty and sweet cooking. They are made using an open glass fiber mesh and a non-stick silicone coating. They stand up to tempe-



ratures ranging from -35°C to 260°C.

Fibermaé give the bread a fine golden crust.


Fibermaé ensure homogeneous cooking thanks to their open mesh which facilitates not air circulation. The pastry is crunchy and golden.

Maé's philosophy has placed Innovation, Quality & Reactivity at the heart of its action.

The company involved in a process of continuous improvement, has always invested in research and development and participates in many national and European research programs. Every year, the company designs and creates new innovative products.



Make your bread your best messenger!

The SIL'TIP is a unique marker mat invented by Gilles Sicart, Baker Expert and Director of the Technical Institute of the Trades of Bread. It gives the opportunity to identify the breads with a permanent marking. 6 standard designs are currently available, but it can be customized with the client's logo, name, brand, etc. 

www.mae-innovation.com





POPPING MACHINE RP-EVO

Re Pietro's Innovation for the production of cereal cakes and no-fried snacks

POPPING MACHINE RP-EVO is the press of the latest generation manufactured by Re Pietro Srl to produce both cereal cakes and no-fried snacks, products that following a worldwide trend are having a constantly increase in demand.

With this new press, the highly innovative attitude of Re Pietro Srl is setting new standards in cereal cakes and snacks production, by offering one solution that will revolutionise and simplify the manufacturing of these products. In fact, once the mould has been chosen and installed, the POPPING MACHINE RP-EVO transforms the cereals and/or the micropellets into fragrant cakes or crunchy snacks.

Its efficiency and flexibility allow to have a wider range of products, using one press only.

Nowadays these products not only are appreciated as healthy alternatives to conventional bread, but they are also valued for their versatility by professionals and consumers: they are perfect as carbs supply during meals, as crunchy snacks for a quick bite or as fancy decorations to dishes and desserts.

By using the new POPPING MACHINE RP-EVO you can maintain the taste and freshness of the raw material used whether it is rice or legumes, corn or cereal mix or even various types of micropellets, so that you can offer to your customers a tasty and healthy product with a wide choice of flavours and shapes.

You may wonder how many

moulds and which shapes can allow you to produce both cakes and snacks with our new press. Round big and small, round with ridges, triangular or square, hexagonal and rectangular just to name a few. But we can also produce customised moulds based on the customers' requests.

POPPING MACHINE RP-EVO FOCUS ON

It has a nickel coated steel struc-

ture, certified food contact material, a stainless-steel electric panel with a side rotating and swivelling touch screen control panel, set at eye's level for easier use.

The POPPING MACHINE RP-EVO is equipped with a hydraulic system that produces the high pressure needed for the expansion of the cereals or micro-pellet turning them into fragrant cakes or crispy snacks.





The volumetric dosing is carried out by a pneumatically operated feeding plate. The moulds which shape the popped cakes and snacks are made by hardened steel coated with titanium nitride, to guarantee solidity and a long-lasting life, and to prevent the sticking of the products on the moulds.

The moulds, as well as all the parts that get in touch with the products, comply with the MOCA specification for food processing machines as per Reg. No.1935/2004 CE (MOCA compliance). The upper and lower

moulds are heated by cartridge heaters separately controlled by thermoregulators. Each press has got its own PLC (Siemens S7-1200) and 7" control panel. From the HMI it is possible to set up each production phase, to save the recipes and check any malfunctioning thanks to its efficient diagnostic system.

POPPING MACHINE RP-EVO is another milestone in the production of Re Pietro Srl, where the manufacturing of food processing machines and plants has always been approached with an

eye to innovation and development, relying on 90 years of solid experience.

In fact, the Company, surrounded by paddy fields in the southern outskirts of Milan, celebrate this year the 90th anniversary of the great intuition of its founder Mr Carlo Re, who saw the potential of rice and its processing. Without forgetting the incredible added value of the Made in Italy quality. 🏠



www.repietro.com



EXHIBITIONS 2023-2024-2025

PROWEIN

19-21/03/2023 
DUSSELDORF

International wine & spirits exhibition.

MECSPE

29-31/03/2023 
BOLOGNA

Fair for the manufacturing industry.

VINITALY

02-05/04/2023 
VERONA

International wine & spirits exhibition.

PROSWEETS

23-25/04/2023 
COLOGNE

Fair for the sweets and snacks industry.

MACFRUT

03-05/05/2023 
RIMINI

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

CIBUS

03-06/05/2023 
PARMA

Fair of food product.

INTERPACK

04-10/05/2023 
DUSSELDORF

Technology focused on packaging, bakery, pastry technology.

TUTTOFOOD

08-11/05/2023 
MILAN

Fair B2B show to food & beverage.

SPS/IPC/DRIVES/ITALIA

23-25/05/2023 
PARMA

Fair for industrial automation sector.

BEER&FOOD ATTRACTION

19-22/06/2023 
RIMINI

Fair for beers, drinks, food and trends.

FISPAL

27-30/06/2023 
SÃO PAULO

Fair for product from packaging.

MCTER

29/06/23 
ROMA

Exhibition on energy efficiency.

POWTECH

26/29/10/2023 
NUREMBERG

The trade fair for powder processing.

HOST

13-17/10/2023 
MILAN

Fair for bakery production and for the hospitality.

SIAL

19-23/10/2023 
PARIS

Fair on food products.

MIDDLE EAST 2023/24

GULFHOST

2023 
DUBAI

Fair of hospitality.

GULFOOD

20-24/02/2023 
DUBAI


Fair for food and hospitality.

GASTROPAN

17-19/03/2023 
ARAD

Fair for the bakery and confectionery.

DJAZAGRO

05-08/06/2023 
ALGERI Fair for companies of the agro-food sector.

IRAN FOOD+BEV TEC

10-20/06/2023 
TEHRAN

Fair for food, beverage&packaging technology.

PROPACK ASIA

14-17/06/2023 
BANGKOK

Fair for packaging, bakery, pastry.

PACPROCESS FOOD PEX

07-09/09/2023 
MUMBAI

Fair for product from packaging.

ANUTEC

07-09/09/2023 
NEW DELHI


Fair for the food&beverage industry.

HOSPITALITY QATAR

06-08/11/2023 
DOHA

Fair of Hospitality and HORECA.

GULFOOD MANUFACTURING

07-09/11/2023 
DUBAI

Fair for packaging and plants.

EXHIBITIONS 2023-2024-2025

IBA

22-26/10/2023 
MONACO

Fair for the bakery and confectionery industry.

CIBUS TEC

24-27/10/2023 
PARMA

Fair for food & beverage technologies trends.

SUDBACK

26-29/10/2023
STUTTART

Fair for bakery and confectionery.

BRAU BEVIALE

28-30/11/2023 
NUREMBERG

Fair of production of beer and soft drinks.

PROSWEETS

28-31/01/2024 
COLOGNE

Fair for the sweets and snacks industry.

SIMEI

2024 
MILAN

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

ANUGA FOODTEC

19-22/03/2024 
COLOGNE

Fair on food and beverage technology.

LATINPACK

16-18/04/2024 
SANTIAGO CHILE

International packaging trade fair.

HISPACK

07-10/05/2024 
BARCELONA

Technology fair for packaging.

FACHPACK

24-26/09/2024 
NUREMBERG

International packaging trade fair.

ALL4PACK

04-07/11/2024 
PARIS

Exhibition about packaging technology.

IPACK-IMA

27-30/05/2025 
MILAN

Exhibition about food and non-food processing and packaging.

DRINKTEC

2025
MONACO 

Fair for the beverage, liquid food industry.

SAVE

2026
VERONA 

Fair for automation, instrumentation, sensors.



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& TEKNOSERVICE SRL****95-96**

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36030 Costabissara - VI
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AGR.****34/36**

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SYSTEM PACK SRL GSP****21**

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36015 Schio - VI
Italy

ICF & WELKO SPA**55/57**

Via Sicilia, 10
41053 Maranello - MO - Italy

**KOELN PARMA
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43126 - Parma

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8200 Schaffhausen
Switzerland

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PELLACINI SERGIO
& FIGLI SAS****76/78**

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43035 Felino - PR
Italy

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Messedamm 22
14055 Berlin
Germany

**NVC - NEDERLANDS
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24/27**

Stationsplein 9k
PO BOX 164
2801 AK Gouda
The Netherland

**ORION
ENGINEERING SRL
30/33**

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43036 Fidenza - PR - Italy

**PND SRL
I COP-48/51**

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84018 Scafati - SA
Italy

**R.O.L. SRL
20**

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47122 Forlì - Italy

**REAL
FORNI SRL
97/99**

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37040 Gazzolo D'Arcole - VR
Italy

**TECNO PACK SPA
4/7**

Via Lago Di Albano, 76
36015 Schio - VI - Italy

**TECNOPOOL SPA
66/69**

Via M. Buonarroti, 81
35010 S. Giorgio in Bosco
PD - Italy

**TROPICAL FOOD
MACHINERY SRL
37/41**

Via Stradivari, 17
43011 Busseto - PR
Italy

**UNIVERSAL
PACK SRL
14/16**

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47842 San Giovanni
in Marignano Rimini
RN - Italy

**ZILLI & BELLINI SRL
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Italy

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FOR PACKAGING, TECHNOLOGY AND PROCESSING**

The Premier PROCESSING & PACKAGING Event for Vietnam and beyond



After the success of ProPak Vietnam in 2022, there are many positive feedbacks on business opportunities generated during the show dates. The 15th edition attracted 10,720 trade visitors to the event to do face-to-face business and provided countless product demonstrations to engineering community. Coming back **Saigon Exhibition & Convention Center (SECC), District 7, Ho Chi Minh City from 8th – 10th November 2023**, ProPak Vietnam 2023 will continually serve the packaging & processing industry in Vietnam and beyond. This is the dedicated place for B2B connect activities, product & technology showcase, industry sharing sessions for enterprises who are working in food, beverage, pharmaceutical, cosmetics, consumer goods and many other related sectors. Secure your participation in the 16th edition of ProPak Vietnam to obtain a chance for real business opportunities you must invest in. ProPak Vietnam 2023 will bring an international-standard event to Vietnam and surrounding countries with significant features:



10.000 sqm

EXHIBITION AREA



450+

EXHIBITING COMPANIES



30+

COUNTRIES/REGIONS



11.000+

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THE PACKAGING & PROCESSING INDUSTRY IN VIETNAM!**