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n° 1-2023

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AND PACKAGING



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and web portal
focusing on
PACKAGING
and on the
FOOD&BEVERAGE
technology**



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FOOD processing

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skype™: editricezeus

Editrice Zeus:

Machineries, plants and equipment for food and beverage industry

year VI - issue n.12 - September 2024

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printing

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Italian Magazine Food Processing

Europe: single issue: Euro 25

Annual (six issues): Euro 120

Outside Europe: single issue: US\$ 30

Annual (six issues): US\$ 170

Subscription payment can be made in the name

of Editrice Zeus sas, by bank money transfer or cheque.

Italian Magazine Food Processing

An outline of the suppliers of machines, plants, products and equipment for the food industry.

Published: monthly

Registration: Court of Monza no.10 of 05.09.2018

Shipment by air mail art.2

comma 20/b law 662/96 - Milan

Panorama dei fornitori di macchine, impianti,

prodotti e attrezzature per l'industria alimentare

Periodicità: mensile. Autorizzazione del Tribunale

di Monza, n.10 del 05.09.2018

Spedizione in a. p. 45% art. 2 comma 20/b

legge 662/96 Filiale di Milano

The reproduction of the articles and/or pictures published by this magazine is reserved (the manuscripts and/or photos sent to the Publisher will not be returned). The Editor declines all responsibilities for any mistake of photocomposition contained in the published papers of any magazine by EDITRICE ZEUS.

THE NEW COMBINED PACKER BY SMI THAT REVOLUTIONIZES THE FORMAT CHANGEOVER

Food manufacturers play a key role in the global economy and have a strong responsibility towards the planet. For these reasons, they rely on suppliers' innovative solution in order to adopt strategies able to ensure the responsible use of resources. Furthermore, consumer habits change more and more frequently. This trend requires industry operators to continuously keep up to date to catch the opportunities offered by the market, thus adapting the production processes accordingly. More and more often, the companies of this sector tend to opt for flexible and environmentally sustainable packaging solutions, suitable for meeting any new market requirement in terms of convenience and product use, as well as awareness towards environmental matters.

This can only be achieved thanks to versatile bottling and packaging plants, which quickly and easily switch from one type of production to another thanks to advanced automation and smart technologies.

SMI experience in end-of-line packaging has led to the development of increasingly efficient solutions, such as

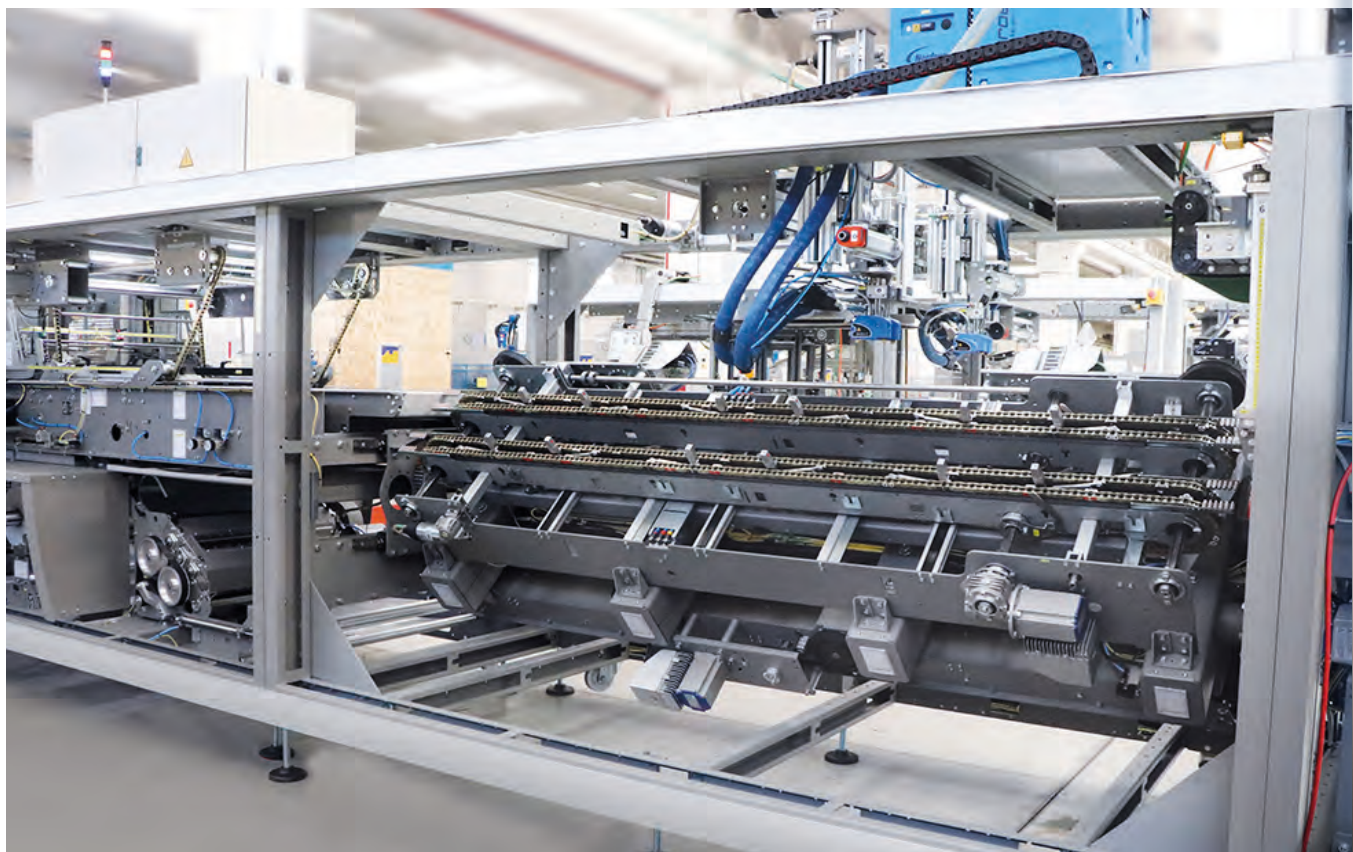


the new combined packer from the CM R ERGON range that stands out for the innovative revolving quick format changeover system, which enables to quickly switch from a film-only packaging to a tray + film or wrap-around box without any manual intervention for the replacement of components or the adjustment of machine devices.

Everything, in fact, is carried out by means of the selection of parameters from the operator panel.

Fast format changeover thanks to the innovative revolving system

The CM R ERGON combined packers combine the functions of a wrap-around case packer, a tray packer





and a shrink wrapper in a single system. They are thus the ideal solutions for those customers who have to frequently switch from one product to another or from one format to another and need to pack a wide variety of containers in the following types of packages:

- 1) film only
- 2) flat cardboard pad+film
- 3) tray+film
- 4) tray only
- 5) fully closed wrap-around boxes
- 6) partially closed boxes.

The new **CM R ERGON** packers by SMI have been developed with the aim of offering an extremely innovative solution to those companies that opt for a combined packaging machine for processing various products and realizing several packs at a maximum production speed of 80 packs/minute (depending on the type of container and pack).

The versatility of combined machines involves frequent format changeover operations.

Thus, the idea of SMI designers to revolutionize these operations by developing a new revolving system to ensure easy, quick, fast and repeatable format changeover operations. Furthermore, mistakes by the operators are removed, as the adjustments to be made are set by the machine system control.

What is the revolving format changeover

The CM R models are equipped with the innovative revolving format changeover system (supplied as standard) which consists of two rotary modules:

- the first positioned in the cardboard/loose product advance area (rotary module 1)
- the second positioned in the area of box/tray formation and loose product flow (rotary module 2).

The two rotary modules are supplied with double equipment: (a) that required for working in film only and (b) that for packaging in tray or wrap-around boxes.

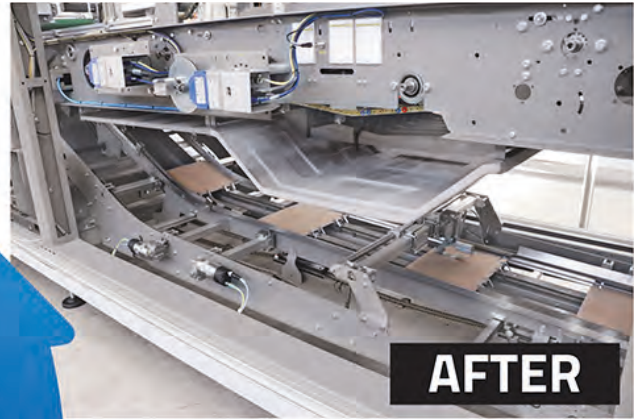
By rotating 180° a single rotary module or both modules, it is possible to obtain different pack configurations with the CM R combined packer.

All this without any mechanical adjustment to be manually made by the operator.

The format changeover of yesterday and today

In most packers available on the market, the change of the pack format involves the adjustment of several axes, an operation that is generally performed manually by means of hand wheels.

This type of operation can take a lot of time for the operator and can lead to mistakes during the adjustments with effects on the production efficiency. On the contrary,



thanks to the new revolving format changeover system, it is possible to save time during the tooling operation, the number of rejects is reduced, the machine downtime caused by wrong settings is eliminated, thus ensuring high quality and maximum efficiency of the packaging line.

Main advantages of CM R ERGON with revolving format changeover

- when you have to switch from one working condition to another (i.e. from film only to wrap-around case), it is sufficient to rotate 180° one or both modules;
- no mechanical adjustment is required for the machine reconfiguration;
- no manual intervention is required for the component replacement;
- the format changeover, totally automated, is a fast, repeatable and precise operation;
- drastic reduction of format change times;
- greater precision, as module 1 (cardboard/loose product advance area) and module 2 (box/tray former) are already prepared to process the new type of packaging;
- greater production efficiency for customers who need frequent switches between running film-only and tray or box;
- reduced maintenance and installation costs. 🏠

www.smigroup.it



SMI का नया संयुक्त पैकर, जो प्रारूप परिवर्तन में क्रांतिकारी बदलाव लाता है

वैश्विक अर्थव्यवस्था के लिए खाद्य उत्पादक निर्णायक हैं और उनकी महत्वपूर्ण पर्यावरणीय जिम्मेदारी है। वे संसाधनों का जिम्मेदारी से उपयोग करने और बदलती उपभोक्ता आदतों के अनुकूल ढलने के लिए नवीन समाधानों पर भरोसा करते हैं।

फ्लेक्सिबल, पर्यावरण-अनुकूल पैकेजिंग को तेजी से पसंद किया जा रहा है, जिसके लिए बहुमुखी बोटलबंद और पैकेजिंग संयंत्रों की आवश्यकता होती है जो उन्नत स्वचालन तथा स्मार्ट प्रौद्योगिकियों का लाभ उठाते हैं।

इसका उदाहरण SMI का नया CM R ERGON पैकर है, जिसमें शामिल है एक घूमने वाली त्वरित प्रारूप परिवर्तन प्रणाली। यह प्रणाली मानवी हस्तक्षेप के बिना विभिन्न पैकेजिंग प्रारूपों—केवल-फिल्म, ट्रे + फिल्म, लपेटने योग्य बक्से—के बीच निरंतर बदलने की अनुमति देती है।

इसके लाभ हैं तेज, सटीक और स्वचालित प्रारूप परिवर्तन, कम रुकना, बेहतर दक्षता और कम रखरखाव लागत, जो इसे लगातार उत्पाद और प्रारूप परिवर्तन वाली कंपनियों के लिए आदर्श बनाती है।

Quality is an Attitude

Our mission is clear: to design cutting-edge labellers that withstand the tests of time, satisfy every customer's evolving production needs and offer maximum benefit and reliability. With a meticulous 'made-in-Italy' production, we combine technological, mechanical and electronic innovations with environmentally friendly production processes, based on energy savings and knowing how to effectively implement a more sustainable economic development model. We begin with a deep knowledge of every aspect of labelling and work with passion, professionalism, competence, and a commitment to always be near our customer for prompt service throughout the lifetime of your labeller.



MAK machine configuration with HS2 adhesive units



Example of configuration with cold glue stations



Example of configuration with roll-feed stations



Cold glue stations



Adhesive stations (SLIM)



Roll-Feed stations



Hot-melt stations

makro
labelling

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

Modularity, flexibility and practicality are key concepts in a company whose strong point is technological innovation and development. This is what the market wants and this is what customers get from the Italian based Makro Labelling, international standard setter for industrial labellers in the beverages, food, detergent and pharmaceutical sectors. The thirty years' experience of its founders, a team of 130 people, a dense and well-organised sales network consisting of the branch offices Makro UK for the United Kingdom and Makro North America in Saint-Philippe (Montreal) for Canada and the USA, together with agents and representatives in the most important countries throughout the world, plus an impeccable assistance and spare parts service guarantee satisfaction of every labelling need and constant expansion on all the most important international markets.

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

The range includes labellers able to process from 1,500 to 50,000 bottles per hour, applying up to five labels per bottle and available in wet glue, hot melt, self-adhesive

and combined versions. For companies with limited production requirements, the MAK 01, MAK 02 and MAK 1 labellers provide speeds of up to 12,000 b/h with mechanical or electronic rotation of the bottle plates. With special applications and able to cope with production speeds of up to 50,000 b/h, the MAK 2, 3, 4, 5, 6, 7, 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 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



मैक्रो लेबलिंग एक गतिशील कंपनी है जिसने तकनीकी नवाचार को अपना मजबूत स्तंभ बनाया है। पेय, भोजन, घर और व्यक्तिगत देखभाल और दवा उद्योग क्षेत्रों के लिए औद्योगिक लेबलिंग मशीनों के क्षेत्र में मैक्रो लेबलिंग आज एक अंतरराष्ट्रीय संदर्भ कंपनी है। एक सघन अंतरराष्ट्रीय वाणिज्यिक नेटवर्क, परिचालनात्मक लचीलेपन के साथ संयुक्त बिक्री पूर्व/ बिक्री पश्चात सहायता सेवा और लगातार विकसित हो रहे बाजार की मांगों का अनुमान लगाने की क्षमता प्रत्येक लेबलिंग आवश्यकता की संतुष्टि की गारंटी यह कंपनी देती है।



WRAPPING UP QUALITY WITH TAILORED PACKAGING SOLUTIONS

Dolcezze Savini is a company based in Tuscany that for three generations has passionately been working in the art of bread and pastry making, using old processing techniques and carefully selected ingredients. From its factories in Valdarno, for over fifty years Dolcezze Savini has been baking high-quality products such as the famous bread cooked in a wood-burning oven, made with Tuscan wheat.



In addition to the different varieties of bread and pizza made with different types of flour, the Valdarno brand boasts a rich pastry production that also includes the typical traditional pastries from Siena produced by the historic company Fiore 1827, acquired by Dolcezze Savini in 2017.

Among these specialities there are three important IGP products: two of them are from Siena and they are Panforte and Ricciarelli, while the almond biscuits named Cantuccini are linked to the Tuscan territory. For a long time, Dolcezze Savini has focused its activity on a production that pays particular attention to the importance of some elements such as natural ingredients, reduced gluten products, palm oil-free products and a clearer labelling system. The current size of the company, which counts more than a hundred employees in total, has not affected the original characteristics of Dolcezze Savini, confirming



Dolcezze Savini's artisanship meets Tecno Pack's technological innovation



Tecno Pack
PACKAGING MACHINES

IFP
PACKAGING

SP
general system pack

its vocation for craftsmanship, its dedication to quality and its desire to be at the forefront of the technology used in its factories.

In this regard, in 2019 the company built a new production plant of over 4,000 meters with the clear intention of investing in technological

innovation. Alongside the integration of two new semi-automatic lines for the production of partially baked bread, the new investment has opened more space for artisanal production with the strengthening of the production of handmade pizza dough. The company has also developed a complete electronic

management system, making it part of the world of industry 4.0. This innovation process has found full achievement in the strengthening of its packaging sector, for which Dolcezze Savini has called upon the group Tecno Pack, a leading company in the supply of packaging technologies.



For over 30 years Tecno Pack has been designing, manufacturing and distributing horizontal packaging machines and automatic packaging systems for the food industry and other sectors. Tecno Pack is a group of companies including Tecno Pack, IFP and GSP. Based in Schio, in the province of Vicenza, Tecno Pack stands out for being a pioneer and innovator in the packaging industry, developing cutting-edge solutions, increasing the digitalization of machines and plants, offering its customers excellent results with limited investments.

The partnership between Tecno Pack and Dolcezze Savini has resulted in the development of three packaging lines, specifically designed by the group for the bread sector

of the Tuscan company. These, in detail, are the new packaging lines implemented in the production system of Dolcezze Savini:

- Monopiega Diamond 650 wrapper. This is an innovative and high-performance shrink wrapping machine, designed to wrap small, medium and large-sized items as well as thin solid products;





- Flow pack ATM FP 025 line suitable for pizza dough and ideal for “pinsa” (a traditional pizza made with an ancient Roman recipe). This horizontal packaging machine is specific for modified atmosphere packaging thanks to the tight packs granted by the sealing system. It is the most suitable flow-wrapper when aesthetically good-looking packages with high-quality side gussets and thick wrapping materials are required;
- The FP 015 line for sandwiches. This horizontal pillow pack wrapper has a particular cantilevered frame with easy accessibility that helps sanitation, both for hygienic and maintenance reasons, guaranteeing full safety at work.

At the same time, the historical production carried out by Fiore 1827 was also implemented with the purchase of a vertical + multi-head packaging machine to improve

the type of packaging and achieve greater production efficiency.

With the selection of these tailor-made solutions, designed according to the production needs of Dolcezze Savini, the Tecno Pack group not only proves to be a leading manufacturer in the sector of packaging machines and systems but also confirms to be the ideal partner to integrate new technologies created as “tailor-made” solutions according to specific automation requirements.

The precious and fruitful collaboration between the Tecno Pack group and Dolcezze Savini represents the utmost expression of the most recent technological innovation combined with traditional working procedures for the production of a great variety of quality products with an authentic artisanal flavour. [🏠](#)



SACMI PACKAGING & CHOCOLATE

Everything for Chocolate and Packaging for Everything

Chocolate processing and moulding

SACMI Packaging & Chocolate presents the HFT 518, the new five-cylinder refiner designed to guarantee optimal grinding results and fine particle sizing, even on products that differ in consistency from traditional ones and two machines from the latest version of the Nano Chocoline: the new 2-cylinder HCP 203 pre-refiner and the 5-cylinder HFI 509 refiner, able to reproduce - on a smaller scale - a high-quality chocolate processing line. In the chocolate molding section, Cavemil Super 860 offer outstanding productivity and modern, practical functional design, ideal for the production of solid pralines, bars and tablets, with or without ingredients, or filled with cream.



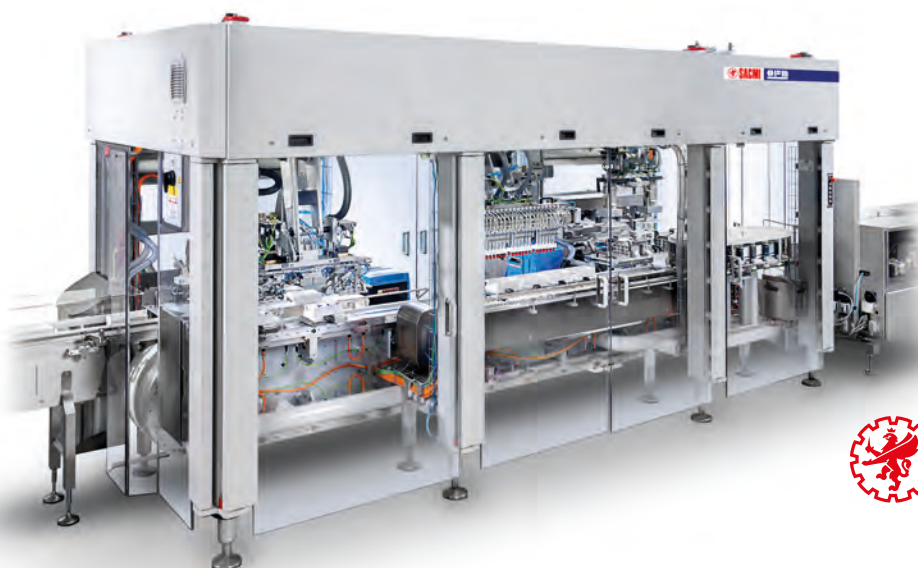
Chocolate packaging

Presented at the end of 2022, HTB is the new wrapping machine for chocolate tablets and bars with an all-electronic approach that, for the very first time, replaces a purely mechanical design.

HTB combines the best wrapping quality with the highest speed on the market: up to 250 tablets per minute, without any damage to the wrapping and/or processed product.

Moreover, HTB is at the forefront of sustainability and energy recovery: it lets users retrieve energy in a circular manner, ensuring attainment and maintenance of maximum energy efficiency/optimization.

In the HY7, a "hybrid" multi-style (e.g. Top, Side & Double Twist, Bunch, Wallet & Envelope) wrapper of flat-based pralines, machine operation is not based just on mechanical transmission but on high-performance, energy-efficient servo drives. Extremely user-friendly, the HY7 can achieve output rates of 700 pieces per minute and it is designed to aid the transition towards a new generation of eco-sustainable wrapping materials. Already a big market hit thanks to its unique compactness, efficiency and versatility, JT Advance is the top-of-the-range flowpack machine for chocolate/cereal bar, snack and praline lines requiring high productivity (up to 150 meters of film, 1300 products per minute). Simplified maintenance, easy access to the machine and extremely short changeover times streamline JT Advance operation enormously. Reel replacement can





also be carried out during production, without reducing machine speed. Moreover, the multi-function picking robot provides impressively ergonomic blank loading. With the innovative linear motor system, the box form-fill-seal stages are independent, maximizing line efficiency and versatility, especially in the case of frequent changeovers.

Packaging – other industries

A Pick & Place loading cell equipped with Fast Picker robots and an innovative vision system that allows greater inspection efficiency and product pick accuracy even for delicate or irregular bakery products.

The products are then passed to the HPS 50 horizontal flowpack wrapper, a medium-speed solution.

The new TF22 TS (Top seal), tray forming machine for produce which aims to meet the need for protective, tamper-evident packaging. TF22 Top Seal also lets manufacturers form cardboard trays for special sizes usually made of plastic.

The VPS 40, a vertical continuous packaging machine designed to deliver high-speed, flexible production for the food and non-food industries. 🏭

www.sacmi.com



चॉकलेट के लिए हर एक चीज़ और हर एक चीज़ के लिए पैकेजिंग

SACMI पैकेजिंग एवं चॉकलेट प्रस्तुत करते हैं HFT 518 पांच-सिलेंडर रिफाइनेर और दो नैनो चॉकोलाइन मशीनें: HCP 203 प्री-रिफाइनेर और HFI 509 रिफाइनेर, ताकि चॉकलेट की प्रोसेसिंग को उच्च गुणवत्ता के साथ पूरा किया जा सके।

कैवेलिन सुपर 860 द्वारा सॉलिड और भरे हुए प्रालिन, बार, और टैबलेट की मोल्डिंग का कार्य उत्कृष्टता के साथ किया जाता है।

2022 में प्रस्तुत की गयी HTB रैपिंग मशीन में एक ऑल-इलेक्ट्रॉनिक डीएन की सुविधा है जो स्थायित्व और ऊर्जा दक्षता के साथ प्रति मिनट 250 टैबलेट तक की गति प्रदान करती है।

HY7 मल्टी-स्टाइल रैपर ऊर्जा-कुशल सर्वो ड्राइव के द्वारा प्रति मिनट 700 पीस तक संभालता है। JT एडवांस, जो कि एक शीर्ष स्तरीय फ्लो-पैक मशीन है, अपने साधारण रखरखाव के साथ उच्च उत्पादकता प्रदान करती है।

इसके अतिरिक्त, पैकेजिंग के क्षेत्र में विभिन्न उद्योगों के लिए SACMI द्वारा प्रस्तुत किए गए नवीनतम उत्पादों में पूर्व में TF22 TS ट्रे और VPS 40 वर्टिकल पैकेजर शामिल हैं।



CLEVERTECH

 HANDLING
YOUR SUCCESS

ITALIAN EXCELLENCE IN INDUSTRIAL PACKAGING

Cleverttech Spa, a family-run company founded in 1987, has charted remarkable growth in the industrial landscape, currently boasting a turnover exceeding 140 million euros and a workforce of approximately 400 employees spread across various global locations. Since its inception, Cleverttech has excelled in the design and supply of systems primarily for the cans & ends making sector, specializing in the production of rigid packaging used in packaging lines.

Over the years, the company has significantly expanded its technological research, extending its expertise to the handling of flexible materials such as pouches and squeezable packaging.

With profound knowledge in primary packaging manipulation, Clever-

tech now covers three crucial phases of the packaging line.

From the initial feeding of products, through the heart of the line where primary packaging undergoes thermal treatment in autoclaves, to the final stage of palletizing the finished product. The company has demonstrated a consistent commitment to innovation, as evidenced by the patented **"Hybrid sweep off"** technology.

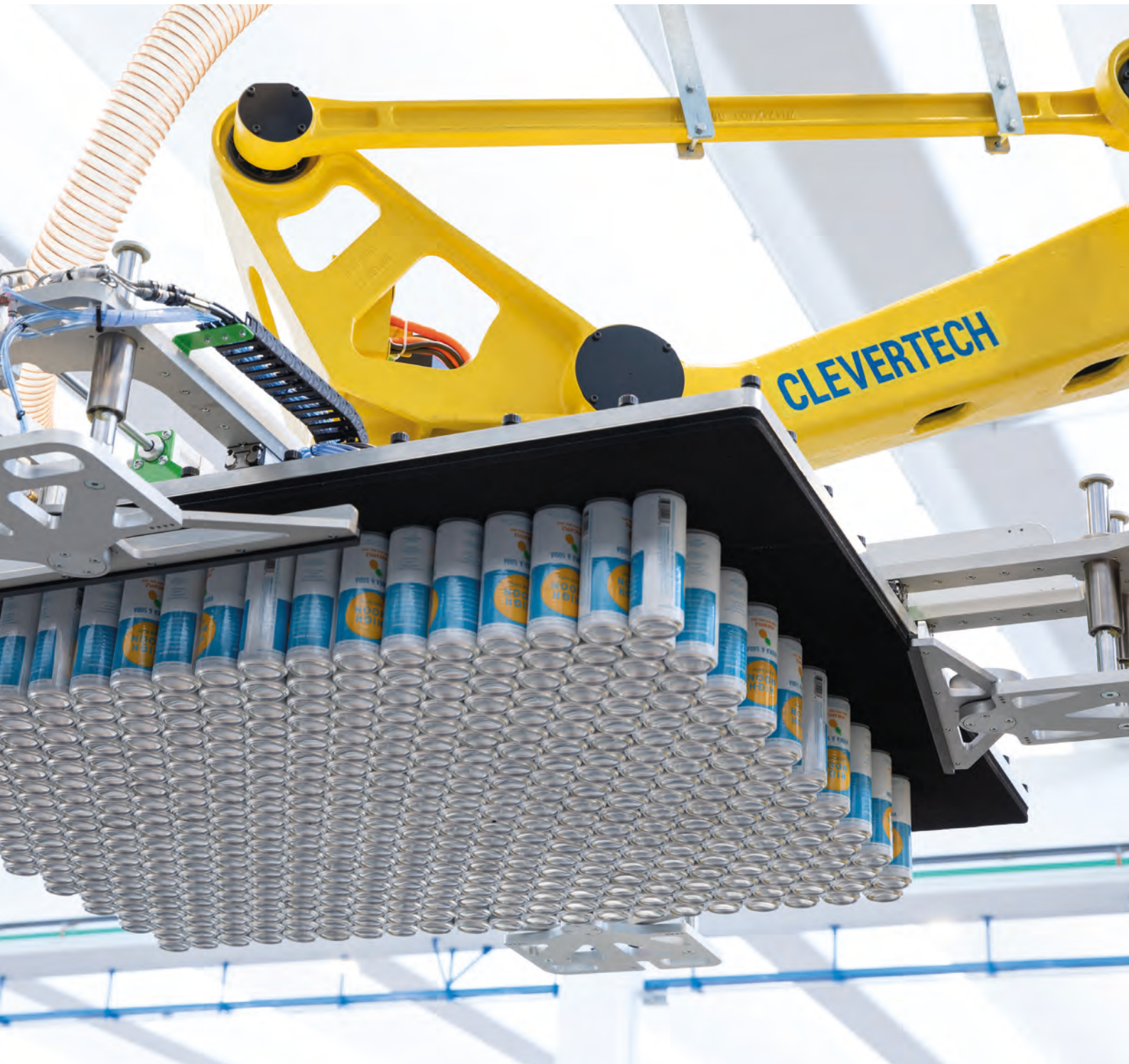
This hybrid system, combining mechanical components with low vacuum pressure, allows remarkable speeds, positive product control, and increased loading capacity while avoiding unwanted accumulations.

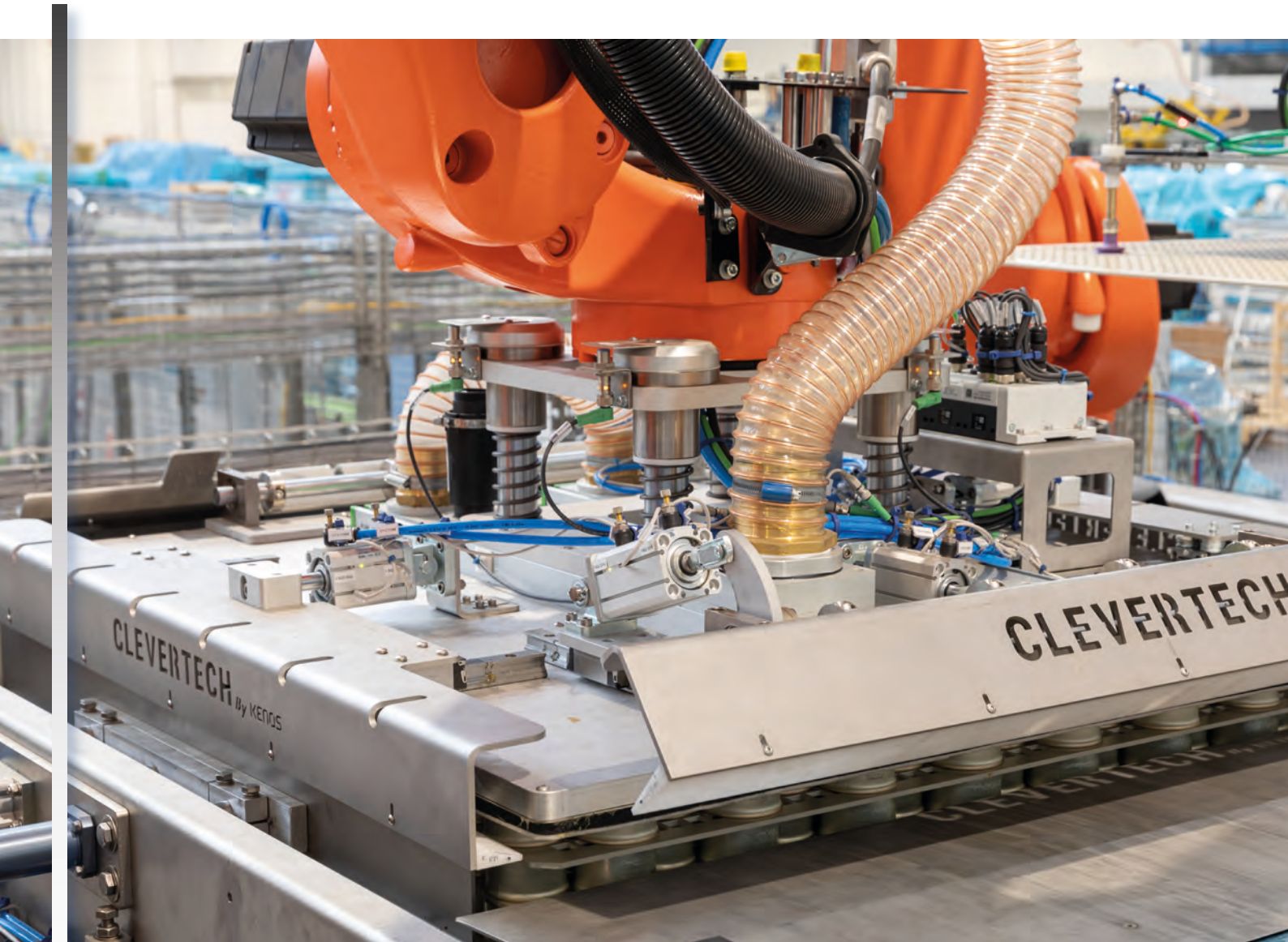
Cleverttech does not limit itself to standard palletization but offers tailored solutions for a wide range of





HANDLING OF FLEXIBLE MATERIALS





HYBRID SWEEP OFF

products and speeds. From traditional cartons to new types of packaging, palletization occurs efficiently, reaching eleven layers per minute. Responding to customers' logistical needs, Cleverttech has developed advanced solutions such as the palletizer that handles different products for each layer and the Tetris palletizer, capable of palletizing up to 25 different products on the same pallet.

Cleverttech's global presence, with headquarters in Italy (main office), America, China, and India, is a

strategic advantage. This decentralization allows the group to offer optimized time and cost-to-market for the end user while maintaining consistent engineering standards, components, sensors, and PLCs worldwide.

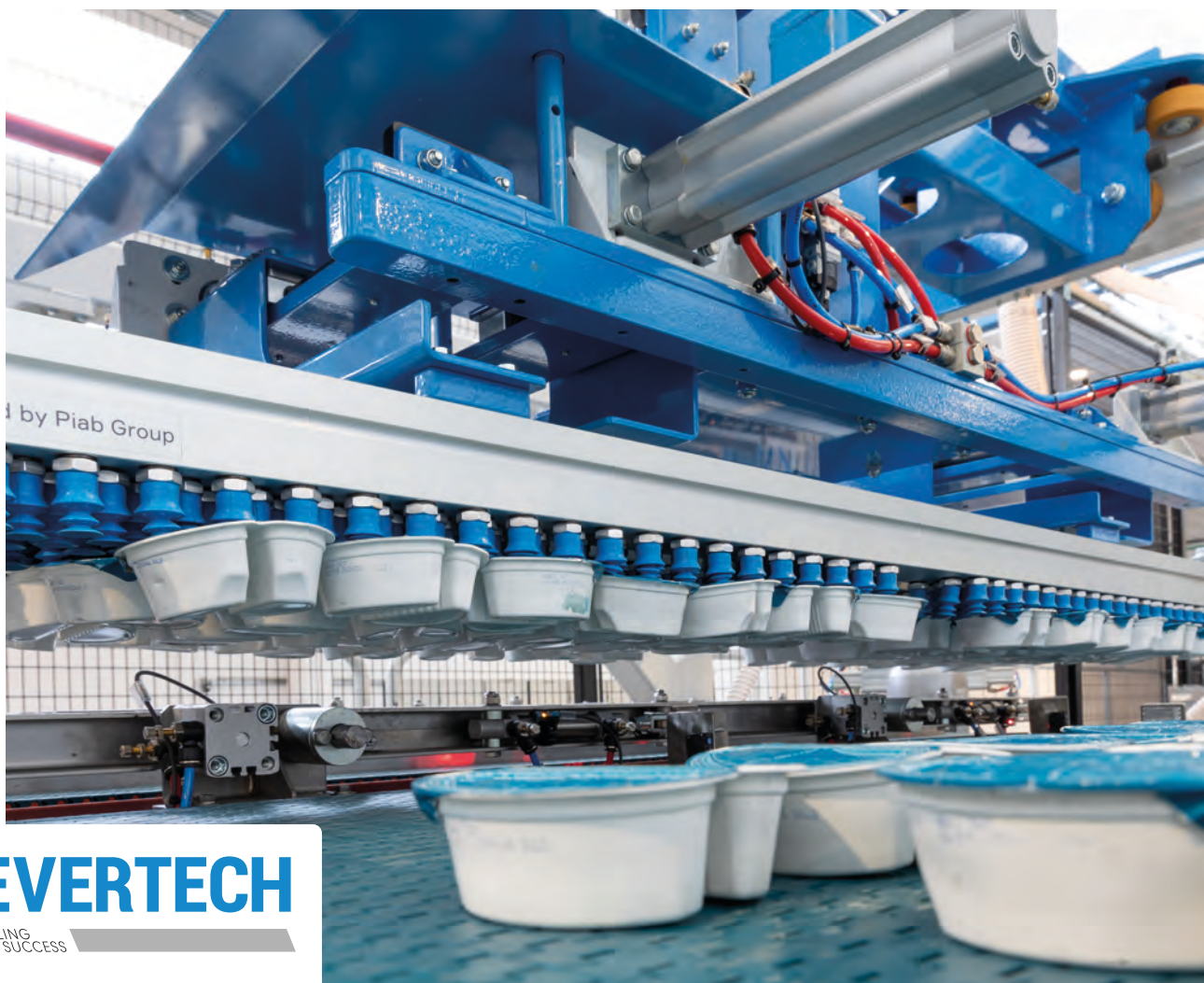
In conclusion, Cleverttech Spa stands as a pillar in the industrial packaging industry, an example of Italian excellence that continues to innovate and meet the dynamic needs of the global market. 🏢

www.cleverttech-group.com



औद्योगिक पैकेजिंग में इटालियन एक्सेलेन्स

1987 से एक परिवार द्वारा संचालित कंपनी Clevertech Spa, 140 मिलियन यूरो से अधिक के कारोबार और दुनिया भर में लगभग 400 कर्मचारियों के साथ औद्योगिक क्षेत्र में एक महत्वपूर्ण हिस्सा बन गई है। डिब्बे और सिरे बनाने के क्षेत्र के लिए तंत्रों में विशेषज्ञता रखते हुए, Clevertech ने पाउच और निचोड़ने योग्य पैकेजिंग जैसी फ्लेक्सिबल सामग्रियों को संभालने में विस्तार किया है। उनकी विशेषज्ञता तीन पैकेजिंग चरणों तक फैली हुई है: खाद्य उत्पाद, ऊष्मीय उपचार, और पैलेटाइजिंग। उल्लेखनीय नवाचारों में पेटेंट की गई "हाइब्रिड स्वीप ऑफ" तकनीक और टेट्रिस मॉडल जैसे उन्नत पैलेटाइजर शामिल हैं। इटली, अमेरिका, चीन और भारत में वैश्विक उपस्थिति के साथ, Clevertech इटालियन औद्योगिक उत्कृष्टता के प्रतीक के रूप में खड़े होकर, स्थानीय बाजार के लाभों को लगातार गुणवत्ता के साथ जोड़ता है।



CLEVERTECH
HANDLING
YOUR SUCCESS

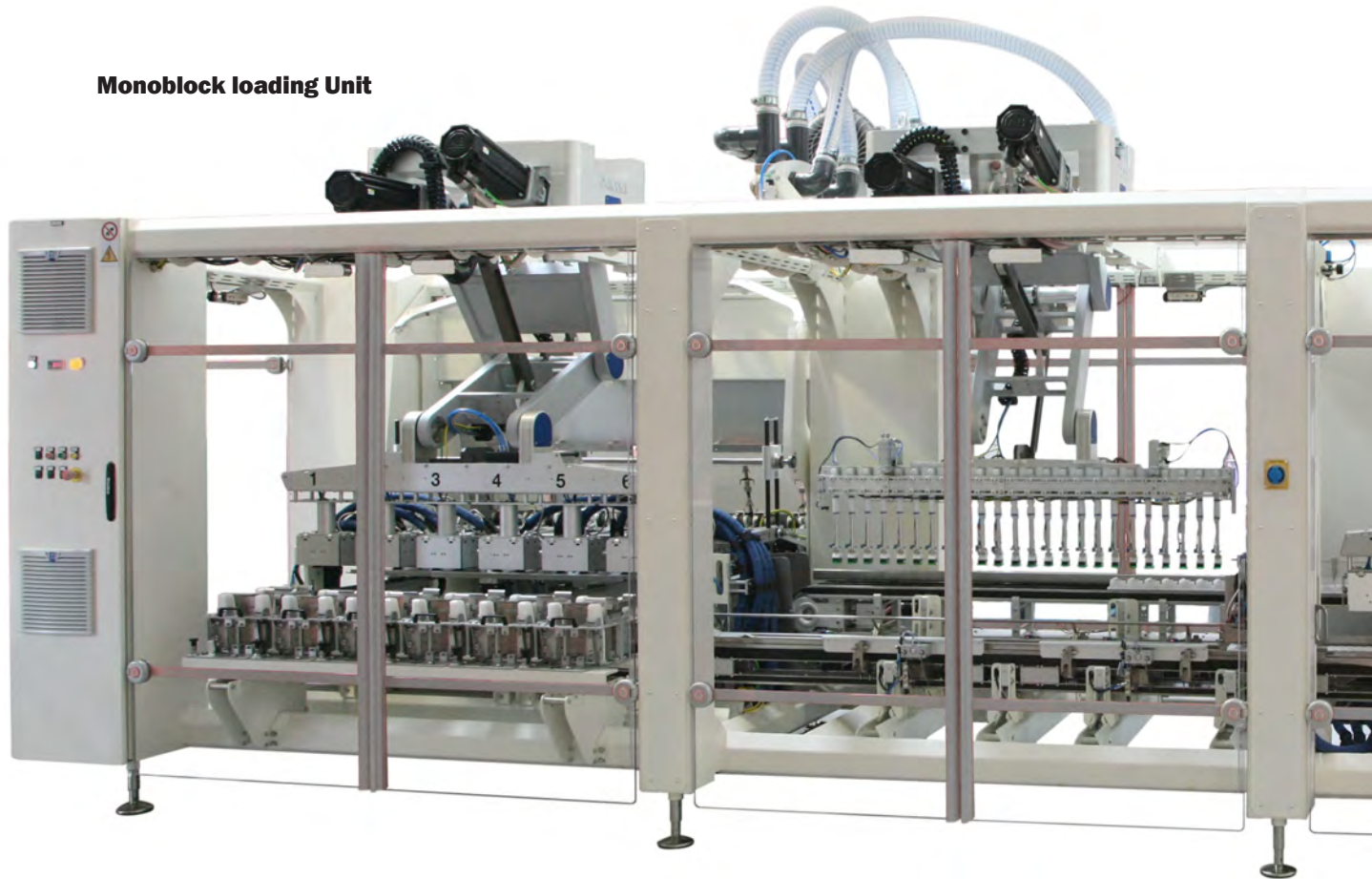
INDIAN PACKAGING DEMANDS MET BY CLASS-LEADING EUROPEAN TECHNOLOGY

Advanced secondary packaging solutions, backed by local service and support proves to be a winning combination

In the food and beverage industry in India, Vedic Pac-Systems has created a reputation for service, supply and delivery of advanced solutions for just about every stage of the production process – from ingredients through processing and onto primary and secondary packaging.

Offering solutions from many leading European companies, Vedic can handle the entire installation, commissioning and support process, following machine design and fabrication the supplier. “In some cases, we also create control and SCADA solutions for customers,” explains Nirav Sampat, Managing Director at Vedic,

Monoblock loading Unit



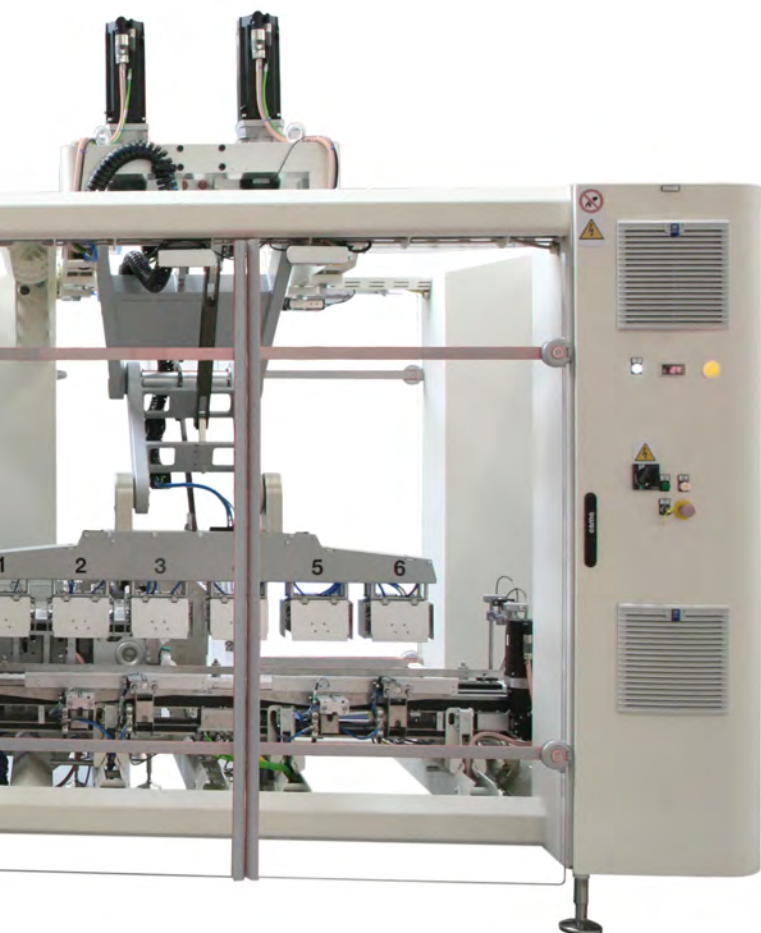


“based on the unique needs of the Indian market. We also offer complete after-sales support too, stocking critical spares to help our customers maintain 100 % uptime.”

One of Vedic’s suppliers is Italian secondary packaging expert Cama Group. “Secondary packaging is a tough sell in India,” Sampat explains. “Lower labour costs mean that automation is not always seen to be cost efficient. However, when you ask customers about higher throughputs, reduced plant real estate and the quality and repeatability you get from automation, it becomes far easier to justify the investment.”

The snacks market is expanding in the region, as are noodles, bakery and chocolate, all of which are closely coupled to consumer demands and changing trends. These expanding markets need technology that not only has the power and capability to keep pace with growing output, but also the agility to adapt to ever-changing trends.

“Many of our Indian customers are curious about newer technologies and are especially interested in Cama,” Sampat elaborates, “the machines they ship to us are easy to use, easy to learn and match the global standard of many of the leading blue-chip brands. We have seen some major successes with Cama technology, including a noodle packaging machine that broke the speed record for both Cama and our customer. I can almost guarantee a semiautomatic secondary packaging process would not come anywhere close this level of performance and accuracy!”





As the Indian food and beverage industry and its supply chains evolve, new possibilities open up for wider deployment of particular products. Like other global markets, as these become established, new technologies are required to cater for rising demand and customer choices.

Vedic Pac-Systems is a supplier of advanced technologies from leading industry suppliers and covers the entire food value chain. With secondary packaging becoming a more important (and higher-capacity process) its established relationship with the Cama Group will bring many operational benefits to its Indian customer base. 🏢

www.camagroup.com

www.vedicsystems.com



बेहतरीन और प्रीमियम गुणवत्ता वाले उपकरण, नवीन तकनीकी समाधान और कुशल ग्राहक सहायता सेवाएं देने के लिए वैदिक पीएसी सिस्टम्स प्राइवेट लिमिटेड एक विश्वसनीय और स्थापित नाम है।

40 से अधिक वर्षों के अनुभव, विशेषज्ञता और भारतीय कन्फेक्शनरी, चॉकलेट, बेकरी, मसाला, खाद्य और स्वास्थ्य सेवा उद्योगों को टर्नकी समाधान देने में एक मजबूत ग्राहक-केंद्रित दृष्टिकोण ने वैदिक पीएसी को अपने सम्मानित ग्राहकों और इसके प्रतिष्ठित प्रधानाचार्यों दोनों के लिए भरोसेमंद साथी बनाया है। वैदिक पीएसी कामा समूह जैसी कई प्रसिद्ध और स्थापित कंपनियों का भारत में विशिष्ट एजेंट, भागीदार और प्रतिनिधि है।

संस्कृत शब्द 'वेद' का अर्थ है ज्ञान और बुद्धि, और यह 'विद' मूल से लिया गया है, जिसका अर्थ है 'जानना'। वैदिक पीएसी के पास एक विश्वसनीय पेशेवर और उद्यमी टीम होने का एक दृष्टिकोण है, जो निरंतर सीखने और अपने ग्राहकों की आवश्यकताओं को पूरा करने के लिए प्रतिबद्ध है।





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:

- Inform member companies of global legislative and regulatory developments through the NVC Members-only Environment Regulations Guide MERGE
- The NVC Workshop Sustainable Innovation in Packaging (Live Online, so 100% interactive and participation possible from any location worldwide)
- 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)
- 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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“ THE WORLD OF FRUIT: MARKET TRENDS AND TECHNOLOGICAL INNOVATIONS ”

The world of fruit is constantly evolving, with many opportunities and challenges at an industrial level. In this article, we will explore the key market trends and the importance of technology in the fruit processing process.

In recent years, we have witnessed a growing diversification of fruit-based products. In addition to classic fruit juices and smoothies, companies are experimenting with fruit extracts, dried snacks, energy bars, and much more. This trend is driven by the increasing consumer awareness of a healthy lifestyle and a balanced diet.

Health and well-being have become major drivers in the industrial fruit sector. Consumers are looking for



by [Walter Konrad](#)





products that are not only tasty but also healthy. This has led to greater attention to the quality of ingredients, reducing added sugars, and using less invasive preservation techniques.

Fruit processing is a crucial process in the food industry. Here, technology plays a fundamental role. Modern production lines are equipped with advanced machinery that allows for efficient and hygienic cleaning, peeling, and cutting of fruit. These automated systems reduce processing time and minimize waste.

Fruit preservation is a key step in ensuring freshness and shelf life. Refrigeration, freezing, and drying are some of the techniques used. Additionally, vacuum packaging and modified atmosphere technology help extend the life of fruit-based products without the use of artificial preservatives.

Technology plays a crucial role in monitoring and tracking fruit-based products. Sensors and cold chain management systems allow for tracking temperature and transport conditions, ensuring that products maintain their quality throughout the entire distribution chain.

Finally, the fruit industry is facing sustainability-related challenges. Companies are seeking ways to reduce the environmental impact of production and packaging by

adopting more eco-friendly practices and using recyclable packaging.

In conclusion, the world of fruit is constantly evolving to meet the needs of modern consumers. Market trends reflect a growing focus on health, quality, and sustainability. Technology plays a crucial role in ensuring efficient processing and high-quality products. With a combination of innovation and environmental awareness, the fruit industry continues to thrive.



PND SRL: A NEW PINEAPPLE PROCESSING PLANT PLACED IN COSTA RICA

PND, which is an expert in fruit processing machinery and advanced systems for ready-to-eat products' companies, as well as for industries in canned, frozen and dehydrated products, has invested in quality and innovation, providing technological solutions aligned with new consumption habits.

The company, which is active on a worldwide market, has recently placed a dedicated plant just for pineapple in Costa Rica, the world's leader for exports of the exotic fruit. The plant, that processes up to two tons per hour, consists of the PL4D machine, for peeling and coring, and the SS8 cutter for cutting into wedges and cubes. The PL4D semi-automatic peeler is manual loading, intuitive and user-friendly and provides a production of

There is a growing interest revolving around the processing of pineapple, a fruit suitable not only for fresh consumption but also for other types of processing.

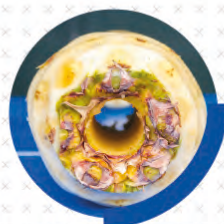
24/28 fruits per minute. Dual-speed adjustment of fruit rotation and blade allows for unrivaled flexibility. The machine is also equipped with two conveyor belts, i.e.,



PEELING



PEELING

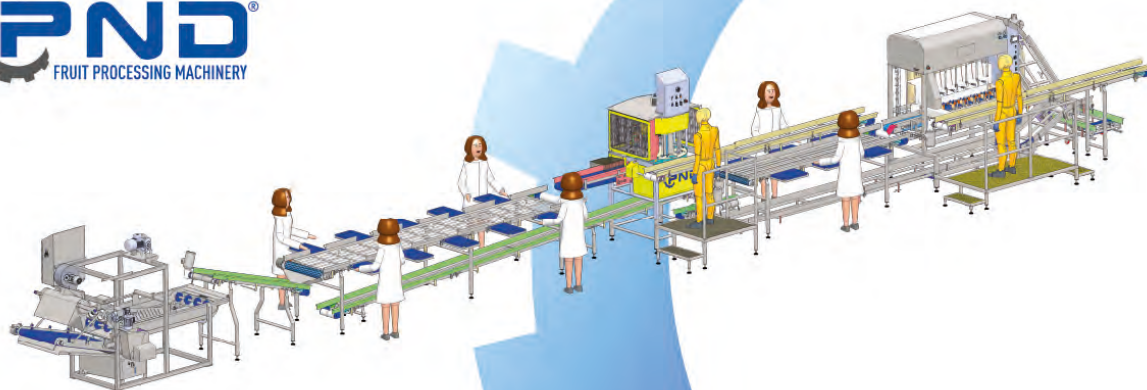


CORING



PEELING AND CORING
MACHINE
MOD. **PL1D** | **PL2D** | **PL4D**

ITALIAN PRODUCT 



Mango



COMPLETE
PROCESSING LINE

MOD. PL6M | SS8 | DTF



PEELING

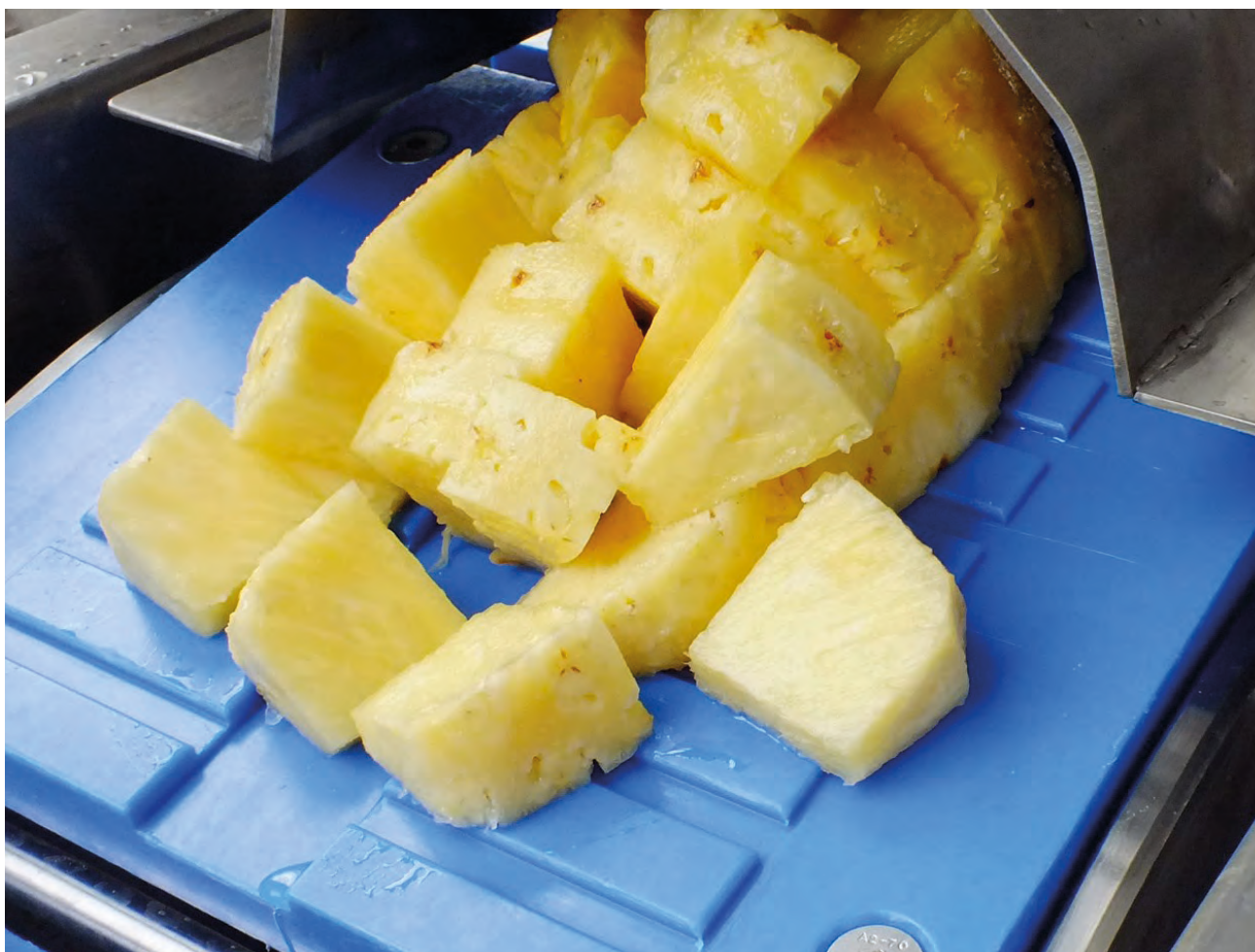


DESTONING



CHUNKING

ITALIAN PRODUCT  





one for peeled product and the other for waste product, a chute for waste product, and inspection and attestation counters. Its stainless-steel structure for the food industry, which is essential for food processing, ensures maximum durability and hygiene in the processing environment. Each fruit is easily peeled, even if it is irregular and uncalibrated, with a yield of 55%, a waste that does not exceed 45%, and without affecting its nutritional and organoleptic integrity.

The SS8 segmenting machine, on the other hand, with its output of 35 to 40 fruits per minute, is a semi-automatic machine that allows cutting into different shapes and sizes, thanks to the possibility of replacing cutters and plungers. The operator only has to load the product, as the automatic mechanism is equipped with plungers that push the fruit through the cutters, allowing it to be cut and collected on the appropriate exit belt. Parts in contact with the fruits are certified for the food industry, and all components are easily interchangeable.

One of PND best-seller is also the mango peeler, that positions itself in international markets as a paragon of Italian engineering ingenuity.

This machine, the best-selling of its kind, stands out as the ideal solution for the food industry, thanks to its ability to adapt to fresh, frozen, and dehydrated sectors. From the compact PL4M model with 4 heads, capable of processing 700 kg/h, to its larger counterpart with 8 heads nearing 112 fruits per minute, PND has considered everything. Each machine in the line is a powerhouse of strength and precision, designed to optimize production processes without compromising the quality of the finished product. These machines are the key to an industry aiming for peak efficiency while maintaining high processing standards.



सेब, नाशपाती, कीवी, आम, आड़ू, खरबूजे, अनानास जैसे फल प्रसंस्करण मशीनों के निर्माण में पीएनडी कंपनी अग्रणी है।

The PND mango peeler is distinguished by its ability to handle fruits of any ripeness level, ensuring a near-perfect yield post-peeling. This not only ensures resource optimization but also places the company at the forefront of promoting sustainable practices, minimizing food waste.

Remarkable versatility of action, ease of use and integration into production processes, as well as effective and quick maintenance and customer care result not only in lower costs but also in improved results. PND has managed to win the trust of both industry technicians and customers, who recognize its machineries as a unique partner. In fact, it is able, thanks to its ability to listen to the customer, to give a prompt response to its purchasers with specific processing lines.

The fact of being able to provide high quality products and constant care, within an increasingly globalized and competitive market context, represents an added value that does make the difference. 🏢

For more information, please visit PND website www.pndsrl.it





The 4th Indonesia International Food & Beverage Processing, Packaging, Ingredients and Supply Chain Exhibition 2024



The Comprehensive Platform for
**SMART F&B PRODUCTIONS
FROM INGREDIENTS,
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 GEM INDONESIA

HOMOGENIZATION TECHNOLOGY FOR A BETTER FUTURE

Demographic and climate changes are forcing a profound rethinking of industry priorities, accelerating the introduction of sustainable products such as plant-based alternatives to milk and meat (so-called “new food”) or alternative packaging to plastic.

GEA Homogenizer has been able to read these trends and has risen to the challenge: with 75 years of experience and a state-of-the-art Technology Center, it has developed specific solutions for these new applications, proving consistent with the group’s purpose of “Engineering for a better world.”

Foods and beverages processed with homogenizers are part of our daily lives and can have a major impact on the quality of life and sustainability of our habits. Dairy and plant-based substitutes, sauces, beverages, and nutraceuticals are products that have also evolved as a result of improved homogenization process.

Benefits of the homogenization process

The benefits of high-pressure homogenization are already known in the food & beverage industry for the reduction of particles in the fluid to sizes even below the nanometer. Homogenization technology therefore makes it possible to create a stable emulsion over time that improves the organoleptic characteristics of the product: shelf-life, viscosity, taste and color.

The use of high pressure and a specific design of the homogenizing valve, engineered according to the product to be processed, make it possible to decrease the size of product particles to the required degree of micronization and to homogenize at the lowest possible pressure, allowing significant cost and energy savings.

“We have recently launched a new range of homogenizing valves capable of reducing energy consumption by



New trends in the food industry today are also possible thanks to the contribution of homogenization technology that supports new applications and sustainable processes.





30%” confirms Domenico Gambarelli, Managing Director of GEA Homogenizer. “Our strategy is based on the desire to accompany customers at every stage of business ‘scale up’ and development of their products, thanks to a machine portfolio ranging from laboratory to industrial production.”

Always by the customers’ side

The Process Technology Center, renovated and refurbished in November 2019 and based in Parma near the production site, is a unique resource for customers, who can evaluate the performance of the homogenization process directly in the field with samples of their product.

Highly qualified staff can support customers in the development of new products and establish the most efficient process conditions so as to ensure scalability of the result even on industrial flow rates.

The reliability and quality of GEA products is known worldwide: come and find out all the details at gea.com/homogenizers.

www.gea.com/homogenizers



**Engineering
for a better
world.**



जीईए होमोजेनाइजर्स उत्पादन साइट – पारमा साल 1947 में सोवि परिवार द्वारा इंजीनियरिंग के उद्देश्य से स्थापित और डेयरी उद्योग के लिए उच्च दबाव वाले होमोजेनाइजर्स का उत्पादन करने के लिए, इस कंपनी ने जल्द ही अपने मुख्य व्यवसाय का विस्तार करना शुरू कर दिया और बढ़ती ग्राहक मांगों को पूरा करने के लिए विदेशों में निर्यात किया। जीईए समूह द्वारा अधिग्रहण के बाद, इंजीनियरिंग और विनिर्माण क्षेत्र में वैश्विक प्रौद्योगिकी के नेता, साल 1994 में जीईए नीरो सोवि की वैश्विक दृश्यता और ताकत उच्चतम झलक पर पहुंच गई, जो कि होमोजेनाइजेशन तकनीक में दुनिया भर में अग्रणी बन गई। 150 से अधिक कर्मचारी, 20,000 मीटर वर्ग का उत्पादन क्षेत्र और दुनिया भर में 10,000 ऑपरेटिंग मशीन, भविष्य, नवाचार और ग्राहकों की संतुष्टि पर ध्यान केंद्रित करने के साथ साथ एक लंबे समय तक चलने वाली उत्कृष्टता विशेषज्ञता को हमेशा प्रदर्शित करते हैं।

जीईए के उच्च दाब वाले होमोजेनाइजर्स का उत्पादन स्थल इटली के पारमा में स्थित है।

यह क्षेत्र इटली की फूड वैली के रूप में भी जाना जाता है, कई बाजार-अग्रणी खाद्य प्रसंस्करण कंपनियों के कारण, जिन्होंने यहां अपना व्यवसाय शुरू किया और विकसित किया।

इस अनूठे वातावरण ने जीईए को इस प्रवृत्ति का पालन करने में मदद की है: उत्कृष्ट निर्माण क्षमताएं एक ऐसी मुख्य विशेषता है, जो हमारे होमोजेनाइजर्स को उच्च गुणवत्ता वाले परिणाम सुनिश्चित करने में सक्षम बनाती हैं, साथ ही साथ विश्वविद्यालयों और अनुसंधान केंद्रों का सहयोग भी कंपनी के साथ है।



NICOFRUIT PAST, PRESENT AND FUTURE

NICOFRUIT
ITALIAN FRUIT & VEGETABLE PRODUCERS

Full of Vitality

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





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.

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

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



CIRCULAR ECONOMY: INDUSTRY AND ENVIRONMENT IN CO-EXISTENCE

“Pastazzo” promotion for an eco-friendly business

From the very first steps in ORION Engineering company, we decided that one of the most important points to be focused on in our projects would have been the eco-sustainability of the processes in which our plants are involved. Today, as then, we pursue this philosophy to pass on to future generations a world that places man at the centre of an ethical and eco-sustainable business.

The first achievements, obtained from these analyses, highlighted the opportunity to undertake a path to further enhance a by-product linked to the citrus fruit chain: the **“pastazzo”!**

The study we have been carrying out for some time is allowing us to re-engineer its enhancement. The combination of technologies and ancient traditions permit to reuse these production wastes as new raw material. The analysis opens new business opportunities for the protagonists of the supply chain, focusing on reducing industrial production costs and at the same time allowing the surrounding environment to be preserved. The citrus fruit pulp, as known, is a by-product of the

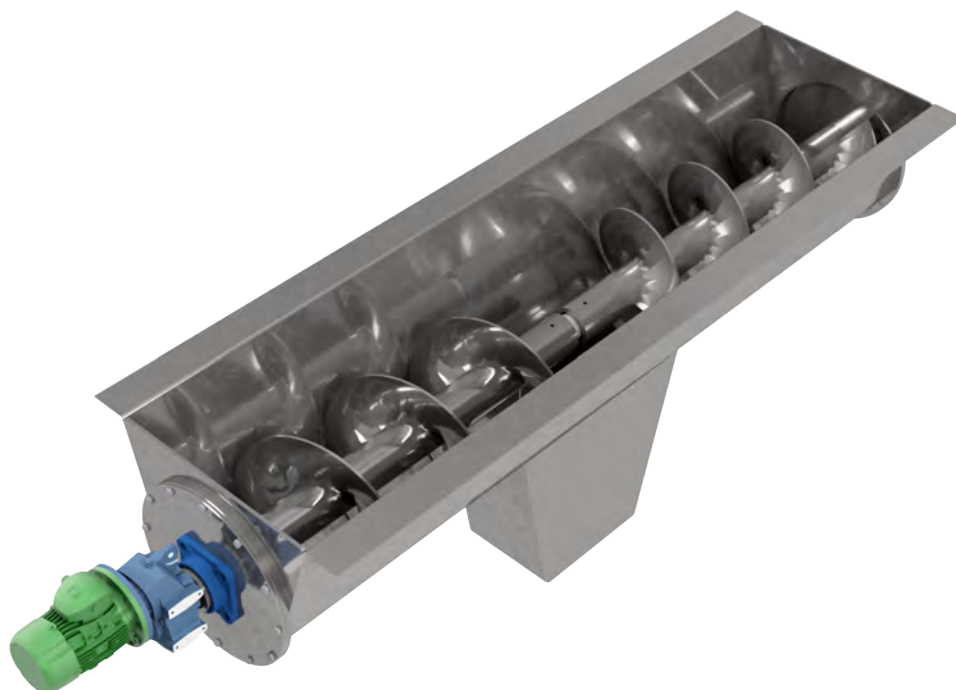
food processing industry consisting of lemons and oranges waste subjected to the extraction of juice and essential oils. From a chemical-physical point of view, the “pastazzo” is made up of residues of peels ($60 \div 75\%$), pulp ($30 \div 35\%$) and seeds (on average $0 \div 9\%$ depending on the quality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

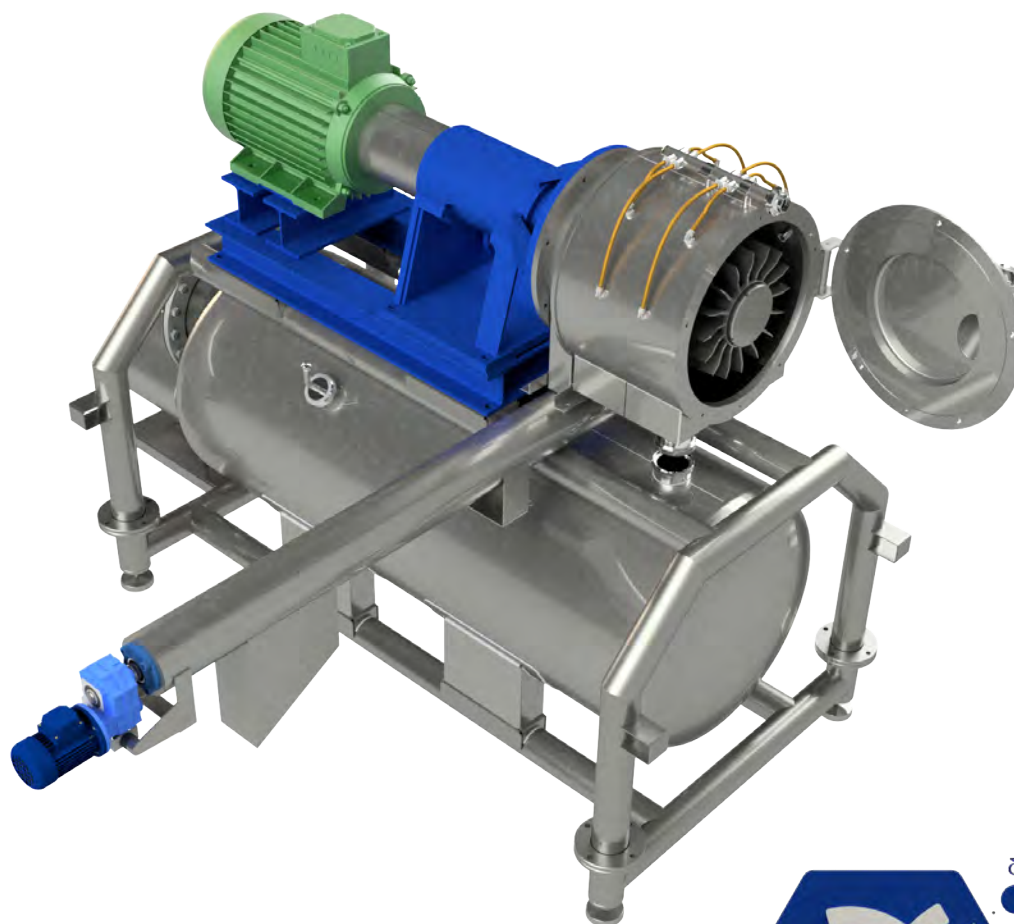
Depending on the type of citrus fruit and processing, the production of fresh “pastazzo” varies from 49% to 69% by weight of the fruit subject to the transformation process. Sometimes the “pastazzo” also contains process water absorbed during the production phases.

As a pure indication, we can highlight the different processing products and by-products from the transformation of 10 tons of citrus fruits from which to obtain:

• **4.930 [kg] of products derived from the 1° transformation**

- 4.200 [kg] First pressing juice;
- 700 [kg] Second pressing juice;
- 30 [kg] essential oil;





• **5000 [kg] of fresh zest “Pastazzo”**

- 265 [kg] Peels for the extraction of Pectin;
- o 315 [kg] Peel for zootechnical use;

• **9330 [l] di Liquid residues**

- 125 [kg] of Bio-Alcohol;
- 9205 [l] of residues with C.O.D. equal to 18.500 mg/l for Biogas production;

The citrus fruit pulp can be used in different ways, some of the best known concerning the organic fertilization of the land, the use in animal husbandry and the extraction of pectin: a thickening polysaccharide naturally present in fruit and widely used in the production of jams.

Our mission as ORION Engineering 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. Our country, with the notification to the European Commission of 13 February 2019, highlights the need for and importance of the use of this resource, asking for the regulation for production, marketing and

use of “pastazzo” as a by-product of citrus processing for its agricultural and zootechnical use.

The various scientific research which are studying and proposing the use of “pastazzo” as an alternative for human nutrition provide further value to our recovery project. The idea is to partially replace food fats such as palm oil (used in various baked goods’ preparation) with a dried fiber extracted from all the residues of citrus fruits.

From the grinding and drying of the fiber, some flour is obtained that has the characteristics of dietary fiber and great water absorption power, for a “sponge effect” that would allow this flour to at least partially replace the dietary fats present in snacks and other bakery products.

Do not hesitate to contact us to receive further information on the technology under investigation and for its application in plants of medium production capacity. 🏢

www.orion-eng.it

“ TECHNOLOGY AND SUSTAINABILITY IN BEVERAGE PACKAGING: A NEW ERA ”

Innovation and Efficiency in the World of Beverages

The world of beverages is rapidly evolving thanks to the advent of revolutionary technologies in the filling and packaging sector. These advancements are crucial not only for improving production efficiency but also for meeting the growing demands for sustainability and customization from the market.

Advanced automation is transforming filling systems, with the introduction of sophisticated robotics and artificial intelligence. These technologies ensure precise



by Our Editorial Team



latest news

and consistent filling, reducing waste and guaranteeing product quality. New generation sensors allow accurate flow control, optimizing the filling process.

Simultaneously, the use of sustainable materials in filling machines is contributing to reducing the environmental impact of the entire production process, aligning the industry with increasing ecological requirements.

In the field of packaging, the use of biodegradable materials such as PLA represents a significant change, reducing the dependence on petroleum-based plastics. This approach offers more ecological and sustainable packaging solutions.

Digital printing technology is also revolutionizing the industry, allowing large-scale customization and rapid

adaptability to the changing needs of the market. Safety and regulatory compliance are at the heart of these innovations. Advanced systems of traceability and quality control are integrated to ensure that every product meets food safety standards, which are essential in the beverage industry.

The beverage industry is moving towards a future characterized by greater efficiency, sustainability, and customer focus, thanks to these innovative technologies in filling and packaging.

With these evolutions, the beverage sector not only responds to current challenges but also projects itself towards a more responsible and cutting-edge future, where quality, sustainability, and customization go hand in hand.



AGRINEXT AWARDS, CONFERENCE & EXPO: A GLOBAL HUB FOR AGRICULTURAL INNOVATION AND COLLABORATION

“This conference is a beacon for what’s possible in modern agriculture.”

— Anas Jawed, CEO of AgriNext Conference —

The AgriNext Awards Conference & Expo, an eminent event in the agricultural sector, is set to unfold on 13-14 November 2024, at Le Méridien Dubai Hotel & Conference Centre, Airport Rd - Al Garhoud - Dubai - United Arab Emirates. Bringing together visionaries, innovators, and industry leaders from across the globe, its agenda promises a comprehensive exploration of the latest trends, technologies, and practices shaping the future of agriculture. The AgriNext Conference, owned and endorsed by InternetShine Corp, USA, and Next Business Media, is set to become a premier virtual hub for the global agricultural sector. Established with the vision of fostering a unified platform, the conference brings together tech start-ups, SMEs, established tech providers, investors, institutions, and other stakeholders to connect and engage collectively. Mr. Anas Jawed is the visionary CEO of AgriNext Conference. With a robust background in agricultural technology and innovation, Anas has been instrumental



in shaping the conference into a global platform for agricultural excellence. His leadership and strategic insights have driven the event’s success, fostering collaboration and knowledge exchange among industry stakeholders.

A Diverse and Comprehensive Agenda

The AgriNext Conference covers a wide array of topics critical to the advancement of agriculture. Key areas of focus include:

- **Agricultural Security:** Exploring strategies to safeguard the global food supply chain against threats and vulnerabilities.
- **Precision Farming:** Highlighting the use of IoT, AI, and data analytics to enhance farm management and productivity.





एग्रीनेक्सट अवॉर्ड्स, कॉन्फ्रेंस और एक्सपो: कृषि नवाचार और सहयोग का वैश्विक केंद्र

एग्रीनेक्सट अवॉर्ड्स कॉन्फ्रेंस और एक्सपो, कृषि क्षेत्र का एक प्रतिष्ठित आयोजन, 13-14 नवंबर 2024 को ले मेरडियन दुबई होटल और कॉन्फ्रेंस सेंटर, एयरपोर्ट रोड - अल गारहुड - दुबई - संयुक्त अरब अमीरात में आयोजित होने वाला है। इस कार्यक्रम में दुनिया भर से दूरदर्शी, नवप्रवर्तनक और उद्योग जगत के नेता एकत्रित होंगे, जिसका उद्देश्य कृषि के भविष्य को आकार देने वाले नवीनतम रुझानों, प्रौद्योगिकियों और प्रक्रियाओं की व्यापक खोज करना है।

इंटरनेटशाइन कॉर्प, यूएसए, और नेक्सट बजिनेस मीडिया द्वारा स्वामित्व और अनुमोदित एग्रीनेक्सट कॉन्फ्रेंस, वैश्विक कृषि क्षेत्र के लिए एक प्रमुख वरचुअल हब बनने के लिए तैयार है। एक एकीकृत मंच को बढ़ावा देने के दृष्टिकोण के साथ स्थापित, कॉन्फ्रेंस में टेक स्टार्ट-अप्स, एसएमई, स्थापित टेक प्रदाताओं, निवेशकों, संस्थानों और अन्य हितधारकों को एक साथ जोड़ने और सामूहिक रूप से जुड़ने का अवसर मिला।

एग्रीनेक्सट कॉन्फ्रेंस के सीईओ मस्टर अनस जावेद हैं। कृषि प्रौद्योगिकी और नवाचार में मजबूत पृष्ठभूमि के साथ, अनस ने इस कॉन्फ्रेंस को कृषि उद्योग के लिए एक वैश्विक मंच में आकार देने में महत्वपूर्ण भूमिका निभाई है। उनकी नेतृत्व और रणनीतिक अंतर्दृष्टि ने इस घटना की सफलता को प्रेरित किया है, जो उद्योग के हितधारकों के बीच सहयोग और ज्ञान विनिमय को बढ़ावा देती है।

विविध और व्यापक एजेंडा

एग्रीनेक्सट कॉन्फ्रेंस कृषि के उन्नति के लिए महत्वपूर्ण विषयों की एक विस्तृत श्रृंखला को कवर करती है। प्रमुख ध्यान क्षेत्रों में शामिल हैं:

- **कृषि सुरक्षा:** वैश्विक खाद्य आपूर्ति श्रृंखला को खतरों और कमजोरियों से बचाने की रणनीतियों का अन्वेषण।

- **सटीक खेती:** फार्म प्रबंधन और उत्पादकता को बढ़ाने के लिए IoT, AI और डेटा विश्लेषण का उपयोग।
- **सतत प्रथाएं:** पर्यावरण के अनुकूल खेती के तरीकों को बढ़ावा देना जो दीर्घकालिक कृषि योग्यता सुनिश्चित करते हैं।
- **प्रौद्योगिकी नवाचार:** कृषि प्रौद्योगिकी में नवीनतम प्रगति को दिखाना जो दक्षता और उत्पादकता को बढ़ाती है।

मुख्य वक्ता और पैनल चर्चा

कॉन्फ्रेंस में प्रमुख वक्ताओं की एक पंक्ति होगी, जिसमें उद्योग के नेता, नवप्रवर्तक और नीति निर्माता शामिल होंगे। प्रमुख वक्ताओं से कृषि क्षेत्र में वर्तमान चुनौतियों और भविष्य के अवसरों पर गहन चर्चाओं का मार्ग प्रशस्त होगा। पैनल चर्चाएँ विभिन्न महत्वपूर्ण मुद्दों पर विचार-विमर्श और अंतर्दृष्टि साझा करने के लिए एक मंच प्रदान करेंगी।

इंटरैक्टिव वर्कशॉप और प्रदर्शनियां

प्रतिभागियों को हाथों-हाथ कार्यशालाओं और इंटरैक्टिव सत्रों में भाग लेने का अवसर मिला। ये कार्यशालाएं उन्नत हाइड्रोपोनिक सिस्टम और वर्टिकल फार्मिंग तकनीकों से लेकर कृषि में AI और मशीन लर्निंग के एकीकरण तक के विषयों को कवर करेंगी। एक्सपो में दुनिया भर के प्रदर्शकों से अत्याधुनिक उत्पादों और नवाचारों का प्रदर्शन किया जाएगा, जिससे प्रतिभागियों को कृषि प्रौद्योगिकी में नवीनतम अनुभव firsthand प्राप्त होगा।

नेटवर्किंग और सहयोग

एग्रीनेक्सट कॉन्फ्रेंस का एक मुख्य उद्देश्य प्रतिभागियों के बीच नेटवर्किंग और सहयोग को सुविधाजनक बनाना है। इस आयोजन में कई नेटवर्किंग अवसर होंगे, जिसमें राउंडटेबल चर्चाएं, नेटवर्किंग लंच और अनौपचारिक मिलने-जुलने के सत्र शामिल होंगे। ये इंटरैक्शन उन गठबंधनों और साझेदारियों को बढ़ावा देने के लिए डिज़ाइन किए गए हैं जो कृषि क्षेत्र में नवाचार और विकास को प्रेरित कर सकते हैं।



- **Sustainable Practices:** Promoting environmentally friendly farming methods that ensure long-term agricultural viability.
- **Technological Innovations:** Showcasing the latest advancements in agricultural technology that drive efficiency and productivity.

Keynote Speakers and Panel Discussions

The conference will feature a line-up of distinguished speakers, including industry leaders, innovators, and policymakers. Notable keynote addresses will set the stage for in-depth discussions on current challenges and future opportunities in the agricultural sector. Panel discussions will provide a platform for thought leaders to debate and share insights on various critical issues.

Interactive Workshops and Exhibitions

Attendees will have the opportunity to participate in hands-on workshops and interactive sessions. These workshops will cover a range of topics, from advanced hydroponic systems and vertical farming techniques to the integration of AI and machine learning in agriculture. The Expo will showcase cutting-edge products and innovations from exhibitors worldwide, allowing participants to experience the latest in agricultural technology first-hand.

Networking and Collaboration

One of the keys aims of the AgriNext Conference is to facilitate networking and collaboration among attendees. The event will feature numerous networking opportunities, including roundtable discussions, a networking luncheon, and informal meet-and-greet sessions. These interactions are designed to foster alliances and partnerships that can drive innovation and growth in the agricultural sector.

Awards and Recognitions

The conference will culminate in the AgriNext Awards Ceremony, celebrating excellence and innovation in agriculture. Awards will be presented in various categories, including:

- **Innovation in Sustainable Farming:** Recognizing breakthroughs that promote environmentally friendly farming practices.
- **Excellence in AgriTech:** Highlighting advancements in technology that enhance agricultural productivity and efficiency.
- **Community Impact Award:** Honouring initiatives that have significantly benefited local communities and economies.

Platform for Investors

The AgriNext Conference offers a premier platform for investors to connect with the trailblazers of cutting-edge innovations in the agricultural technology sector. Engage in

in-depth discussions about their solutions during investor-specific sessions, and take advantage of networking opportunities with industry leaders.

Impact on the Agricultural Community

The AgriNext Awards Conference & Expo plays a pivotal role in driving progress within the agricultural sector. By providing a platform for knowledge exchange and collaboration, the event fosters a spirit of innovation and excellence.

The Role of IT in Agriculture

The IT sector in agriculture refers to the application of Information Technology (IT) solutions to enhance and streamline various aspects of agricultural practices. This integration of IT aims to improve efficiency, decision-making, and overall productivity in the agricultural industry. Key components of the IT sector in agriculture include:

- Farm Management Software
- Precision Agriculture
- Data Analytics and Big Data
- Internet of Things (IoT)
- Drones and Remote Sensing
- Geographic Information Systems (GIS)

AgriNext plays a crucial role in this integration by providing a platform for showcasing and discussing these innovations, facilitating collaboration among tech providers, farmers, and investors, and promoting the adoption of advanced IT solutions in agriculture.

Future Outlook and Conclusion

The AgriNext Awards Conference & Expo is more than just an event; it is a dynamic platform for entrepreneurs, investors, innovators, practitioners, and enthusiasts to exchange insights, build alliances, and gain knowledge from one another. By providing a comprehensive and inclusive environment, the conference ensures that all stakeholders in the agricultural sector can collaborate and contribute to a sustainable and prosperous future. With its diverse agenda and focus on innovation and collaboration, the AgriNext Conference is poised to make a significant impact on the global agricultural landscape. Don't miss the opportunity to be part of this transformative event and contribute to the future of agriculture. The AgriNext Awards Conference & Expo not only celebrates the achievements of today but also sets the stage for the innovations of tomorrow. As the agricultural industry faces increasing challenges, events like these are crucial for driving sustainable solutions and ensuring a resilient food future.

“At AgriNext, we envision a future where technology and agriculture converge to create sustainable solutions for a growing world. This conference is the breeding ground for those revolutionary ideas.” 🏛️



पुरस्कार और मान्यता

कॉन्फ्रेंस एग्रीनेक्स्ट अवॉर्ड्स समारोह के साथ समाप्त होगी, जिसमें कृषि में उत्कृष्टता और नवाचार का जश्न मनाया जाएगा। विभिन्न श्रेणियों में पुरस्कार प्रदान किए जाएंगे, जिनमें शामिल हैं:

- **सतत खेती में नवाचार:** पर्यावरण के अनुकूल खेती के तरीकों को बढ़ावा देने वाले सफलताओं की पहचान।
- **एग्रीटेक में उत्कृष्टता:** प्रौद्योगिकी में प्रगति को उजागर करना जो कृषि उत्पादकता और दक्षता को बढ़ाती है।
- **सामुदायिक प्रभाव पुरस्कार:** उन पहलों का सम्मान करना जिन्होंने स्थानीय समुदायों और अर्थव्यवस्थाओं को महत्वपूर्ण लाभ पहुंचाया है।

नविशकों के लिए मंच

एग्रीनेक्स्ट कॉन्फ्रेंस कृषि प्रौद्योगिकी क्षेत्र में नवीनतम नवाचारों के अग्रणी व्यक्तियों के साथ नविशकों को जोड़ने के लिए एक प्रमुख मंच प्रदान करती है। नविशक-वशिष्ट सत्रों के दौरान उनके समाधानों के बारे में गहन चर्चाओं में भाग लें, और उद्योग के नेताओं के साथ नेटवर्किंग अवसरों का लाभ उठाएं।

कृषिसमुदाय पर प्रभाव

एग्रीनेक्स्ट अवॉर्ड्स कॉन्फ्रेंस और एक्सपो कृषि क्षेत्र में प्रगति को प्रेरित करने में एक महत्वपूर्ण भूमिका निभाती है। ज्ञान विनिमय और सहयोग के लिए एक मंच प्रदान करके, यह घटना नवाचार और उत्कृष्टता की भावना को बढ़ावा देती है।

कृषि में आईटी की भूमिका

कृषि में आईटी क्षेत्र का तात्पर्य कृषि प्रथाओं के विभिन्न पहलुओं को बढ़ाने और सुव्यवस्थित करने के लिए सूचना प्रौद्योगिकी (आईटी) समाधानों के अनुप्रयोग से है। आईटी का यह एकीकरण कृषि उद्योग में दक्षता, निर्यात लेने और समग्र उत्पादकता में सुधार करना है। कृषि में आईटी क्षेत्र के प्रमुख घटक शामिल हैं:

- फार्म मैनेजमेंट सॉफ्टवेयर
- सटीक कृषि
- डेटा एनालिटिक्स और बगि डेटा
- इंटरनेट ऑफ थिंग्स (आईओटी)
- ड्रोन और रिमोट सेंसिंग
- भौगोलिक सूचना प्रणाली (जीआईएस)

एग्रीनेक्स्ट इन नवाचारों को प्रदर्शित करने और चर्चा करने के लिए एक मंच प्रदान करके, टेक प्रदाताओं, किसानों और नविशकों के बीच सहयोग को सुविधाजनक

बनाकर, और कृषि में उन्नत आईटी समाधानों को अपनाते को बढ़ावा देकर इस एकीकरण में महत्वपूर्ण भूमिका निभाती है।

भविष्य का दृष्टिकोण और नविकरण

एग्रीनेक्स्ट अवॉर्ड्स कॉन्फ्रेंस और एक्सपो सरिफ एक घटना नहीं है; यह उद्यमियों, नविशकों, नवप्रवर्तकों, चिकित्सकों और उत्साही लोगों के लिए अंतरदृष्टि का आदान-प्रदान करने, गठबंधन बनाने और एक-दूसरे से ज्ञान प्राप्त करने के लिए एक गतिशील मंच है। एक व्यापक और समावेशी वातावरण प्रदान करके, कॉन्फ्रेंस सुनिश्चित करती है कि कृषि क्षेत्र के सभी हितधारक सहयोग और एक स्थायी और समृद्ध भविष्य में योगदान कर सकें। अपने विविध एजेंडा और नवाचार और सहयोग पर ध्यान केंद्रित करते हुए, एग्रीनेक्स्ट कॉन्फ्रेंस वैश्विक कृषि परिदृश्य पर महत्वपूर्ण प्रभाव डालने के लिए तैयार है। इस परिवर्तनकारी घटना का हिससा बनने और कृषि के भविष्य में योगदान करने का अवसर न चूकें। एग्रीनेक्स्ट अवॉर्ड्स कॉन्फ्रेंस और एक्सपो न केवल आज की उपलब्धियों का जश्न मनाती है बल्कि कल के नवाचारों के लिए मंच तैयार करती है। जैसे-जैसे कृषि उद्योग बढ़ती चुनौतियों का सामना कर रहा है, इस तरह की घटनाएं सतत समाधान चलाने और एक लचीले खाद्य भविष्य को सुनिश्चित करने के लिए महत्वपूर्ण हैं।

“एग्रीनेक्स्ट में, हम एक ऐसे भविष्य की कल्पना करते हैं जहाँ प्रौद्योगिकी और कृषि एक बढ़ती हुई दुनिया के लिए स्थायी समाधान बनाने के लिए अभिसरण करते हैं। यह कॉन्फ्रेंस उन क्रांतिकारी विचारों के लिए प्रजनन भूमि है।”

- अनस जावेद, एग्रीनेक्स्ट कॉन्फ्रेंस के सीईओ -



EXPERTS IN CREATIVITY, INNOVATION & SUSTAINABILITY



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

Since the beginning Lawer has always implemented the strategic decision to invest on people, research and new technologies. Thanks to the analysis and development of the technical department the company shows its strong projecting capabilities. The task of finding the most innovative technical solutions for the systems continuous improvement is essentially provided by a qualified and professional team, which is constantly updated and trained with new technologies.

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

dosage of ingredients is required.

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

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

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

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

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

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



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

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

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

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

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



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

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

www.lawer.com

LAWER®
dosing & dispensing systems



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

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

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

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

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

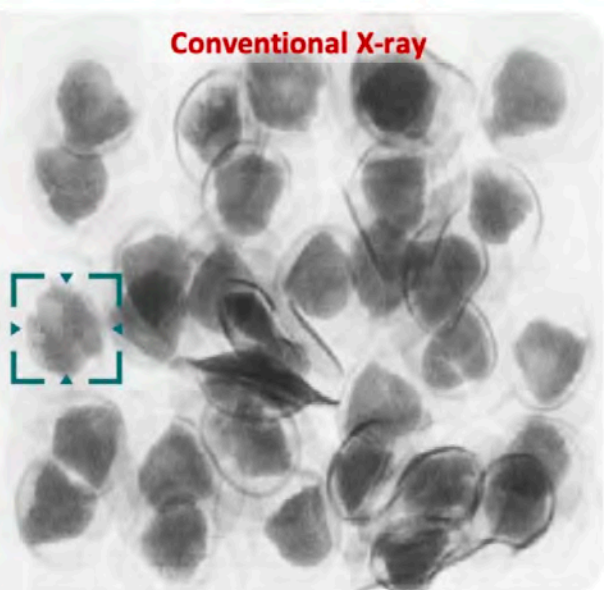
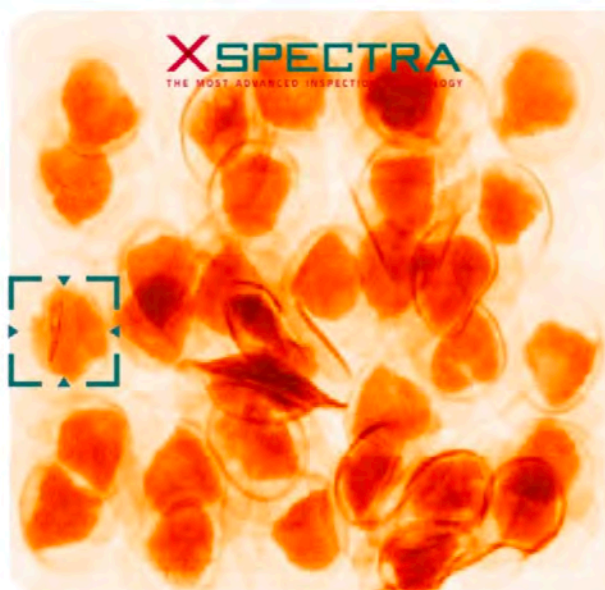
Xnext® has developed the heart of its x-ray multi-energy system, XSpectra®, to further increase the quality of supply chain control.

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

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



Carapace fragment
in filled pasta





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



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

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

ics, which are brought together using artificial intelligence algorithms.

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

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

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

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

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

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

www.x-next.com

XNEXT
ADVANCED INSPECTION TECHNOLOGY



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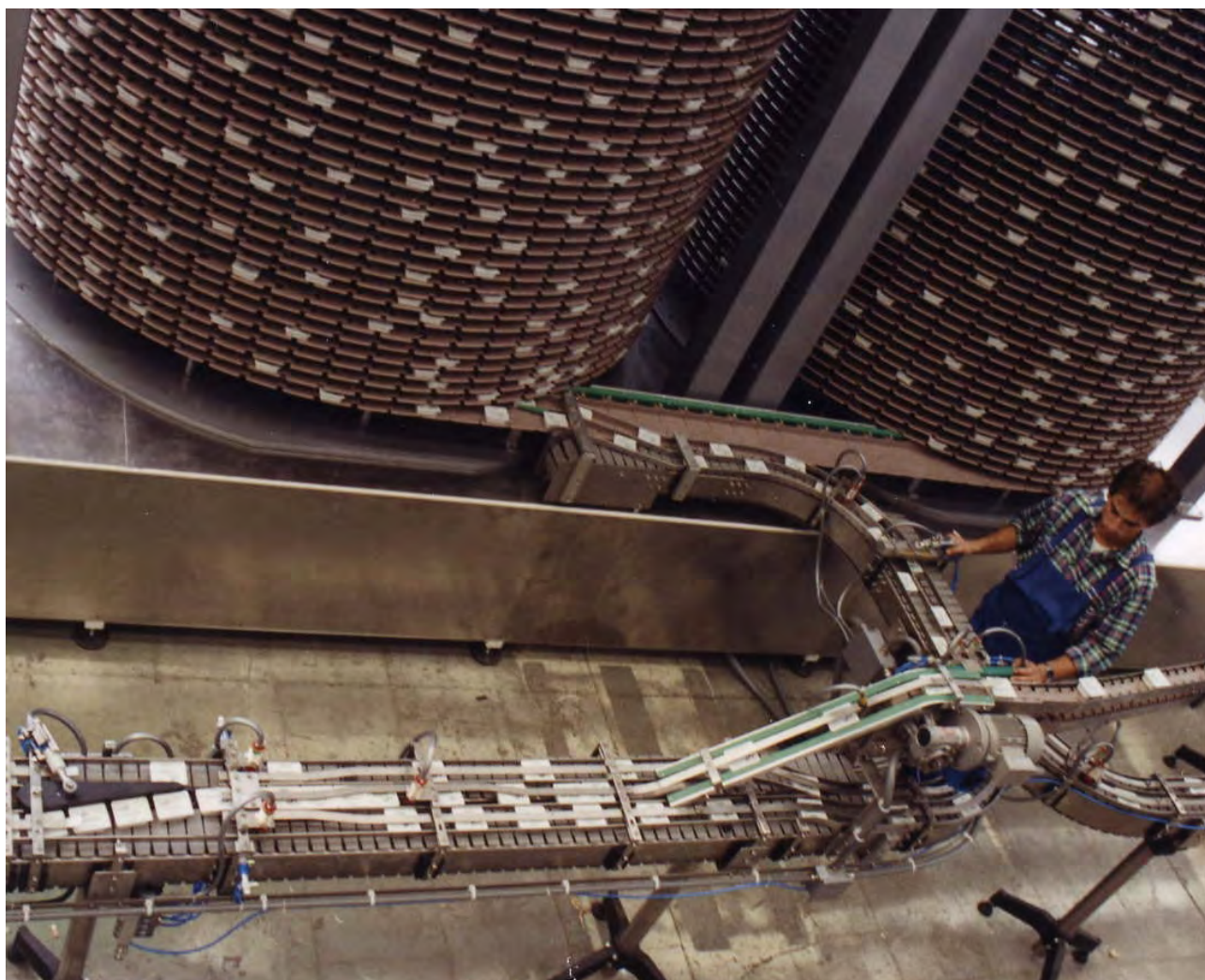
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CONVEYORS FOR COOLING APPLICATIONS

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



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

In this article we are going to concentrate on the main conveyor technologies used for these applications, spi-

ral conveyors are not all the same and each technology has its ups and downs that should be taken into consideration for the overall machine selection. All the systems are based on a sideflexing chain and what we have been seeing is polymers constantly replacing steel, now not only for the body of the chain but also for the connection pins. Modular chain give huge advantages for maintenance and sanitation and new materials are increasing the versatility in terms of tempera-

ture range and properties for direct contact with food products.

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



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

The introduction of modular chain is what drove the development of the **drum drive** technology that allowed to use normal sideflexing modular chain for the longest conveyors section without any special reinforcement. The whole concept of the drum drive is to have a rotating drum (either continuous or a cylindrical cage) inside the spiral on which the chain is pulled.

The drum will move at a little bit higher speed compared to the one required by the conveyor (called overdrive) and doing so will pull the chain applying low tension. The advantage of being able to drive many meters of chain,

filled with products, with just two motors (one of the drum and one to help the chain to get out from the drum) is significative even if balanced with the complication of the chain tensioning system as well as a control system that allow to finely adjust the speed of the drum to the correct overdrive speed. Another downside is that the configuration of the spiral is pretty much fixed to a cylindrical shape with just the possibility to choose the position of in and out.

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

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

solution that can be used only after the primary packaging but is extremely compact and allow many meters of conveyor even with products in a single row.

The **Heliflex System** is a special table top chain that uses double rotating drums with direct drive concept (so the drums act as pinions), that uses a single motor. It is suitable for a niche of applications, mainly the cooling of melted cheese after the wrapping and of ready-made dishes in open or sealed trays. While being limited to the packed product and to one or two lanes, the Heliflex still is a great deal after primary machines allowing to make the cooling in a compact footprint with competitive costs. 🏢

www.mhmaterialhandling.com



“ INNOVATION AND SUSTAINABILITY IN MILK PROCESSING: A JOURNEY FROM FARM TO TABLE ”

The journey of milk from its source to the consumer, featuring advanced technologies and standards that ensure the product's quality and sustainability



by Our Editorial Team

In the European dairy industry, technological innovation and adherence to environmental and food safety regulations play a pivotal role in shaping milk production and processing practices.

From Milking to Pasteurization: Cutting-Edge Technologies

The milk's journey begins at modern farms, where robotic milking systems ensure efficiency and hygiene, minimizing human contact and guaranteeing consistent quality. These technologies, in addition to improving animal welfare, enable health monitoring of the livestock, providing valuable data for disease prevention.

Subsequently, the milk undergoes heat treatment processes like pasteurization, crucial for eliminating pathogens while preserving nutritional properties. Modern heat recovery pasteurizers not only ensure food safety but also energy efficiency, aligning with European directives on eco-sustainability.



all images: pexels.com

Filtration and Homogenization: ensuring quality

Microbial filtration and homogenization are key steps in milk treatment. The former removes any residues, while the latter ensures a uniform consistency, enhancing milk digestibility. These processes are regulated by strict European standards that define safety and quality parameters, ensuring that the milk reaching consumers is not only safe but also of high quality.

Packaging and Logistics: Innovations and Regulations

Packaging is another area where innovation plays a vital role. Eco-friendly materials and techniques like aseptic packaging extend the shelf life of milk without

preservatives, in line with European policies for waste reduction and sustainability promotion.

In transportation, the cold chain is strictly maintained through real-time monitoring systems, ensuring the milk retains its freshness and quality up to the point of sale. European regulations on the transportation of refrigerated foods set rigorous standards that companies must comply with, promoting practices that protect both the consumer and the environment.

Towards the Future: Sustainability and Traceability

The European dairy industry is swiftly moving towards greater sustainability and traceability, adopting technologies like blockchain to ensure transparency throughout

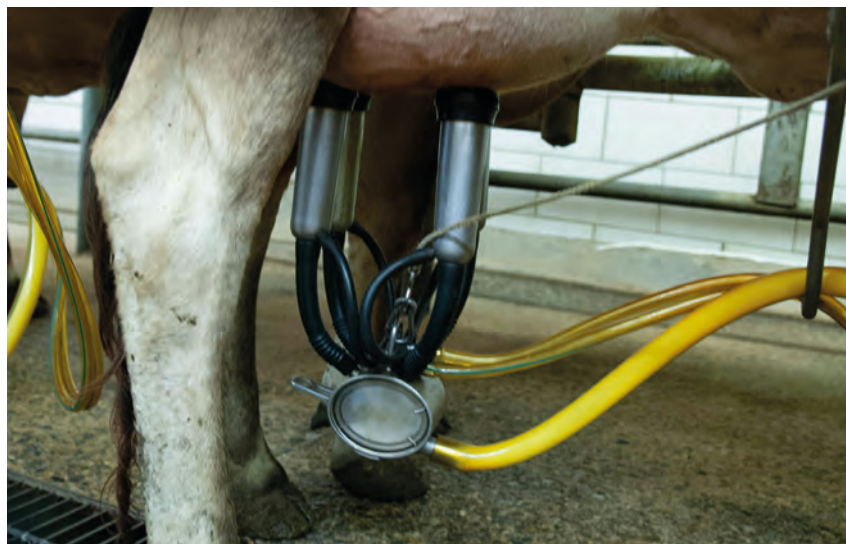




the supply chain. This not only boosts consumer trust but also contributes to optimizing production practices, reducing waste and improving efficiency.

The journey of milk, from farm to table, is a prime example of how technology, innovation, and regulations can converge to produce safe, quality, and sustainable foods.

The European dairy industry continues to be a global benchmark, committed to constantly improving milk production and processing practices to meet the growing demands of increasingly informed and conscious consumers."



DAIRY DERIVATIVES:

Diversity and innovation in processing

Beyond milk in its purest form, the European dairy industry produces a wide array of derivatives, ranging from cheeses to yogurts, creams to ice creams.

The production of these derivatives requires specialized technologies and processes that reflect the diversity and richness of the European food heritage, always in full compliance with EU regulations that ensure quality and safety.

Cheeses: art and science

The production of cheese is perhaps the oldest example of milk transformation and remains a fusion of art and science. The coagulation of milk, fermentation, and maturation are processes that vary greatly depending on the desired type of cheese. Modern technologies support tradition, allowing precise control of production and maturation conditions, which, along with microbiological knowledge, ensure the safety and consistency of the products.

Yogurts and fermented products: benefits and innovation

The growing interest in fermented products like yogurt is driven by their well-known health benefits, particularly for the digestive system. The production of yogurt and other fermented dairy products utilizes specific bacterial cultures that must be carefully managed to ensure the quality of the final product. Innovations in this sector include the development of new probiotic strains and fermentation techniques that improve flavor, texture, and nutritional benefits.

Creams and butter: versatility in the kitchen

Creams and butter, essentials in European cuisine, are produced through separation and churning processes that modify their texture and fat content. Technology plays a key role in making these processes efficient and sustainable, with systems that minimize waste and optimize energy use. Here too, regulations ensure that the products maintain high standards of quality and safety.

Ice creams and desserts: innovation in cold

The ice cream and frozen dessert sector utilizes advanced quick-freezing techniques to preserve flavor, texture, and nutritional value. Innovation in this field includes the development of new flavors and formats, as well as solutions to reduce sugars and fats without compromising taste. European regulations on additives and labeling play a crucial role in ensuring that these products are not only delicious but also transparent for consumers.



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Pneumatic components, electric actuation
and fluid control

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

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

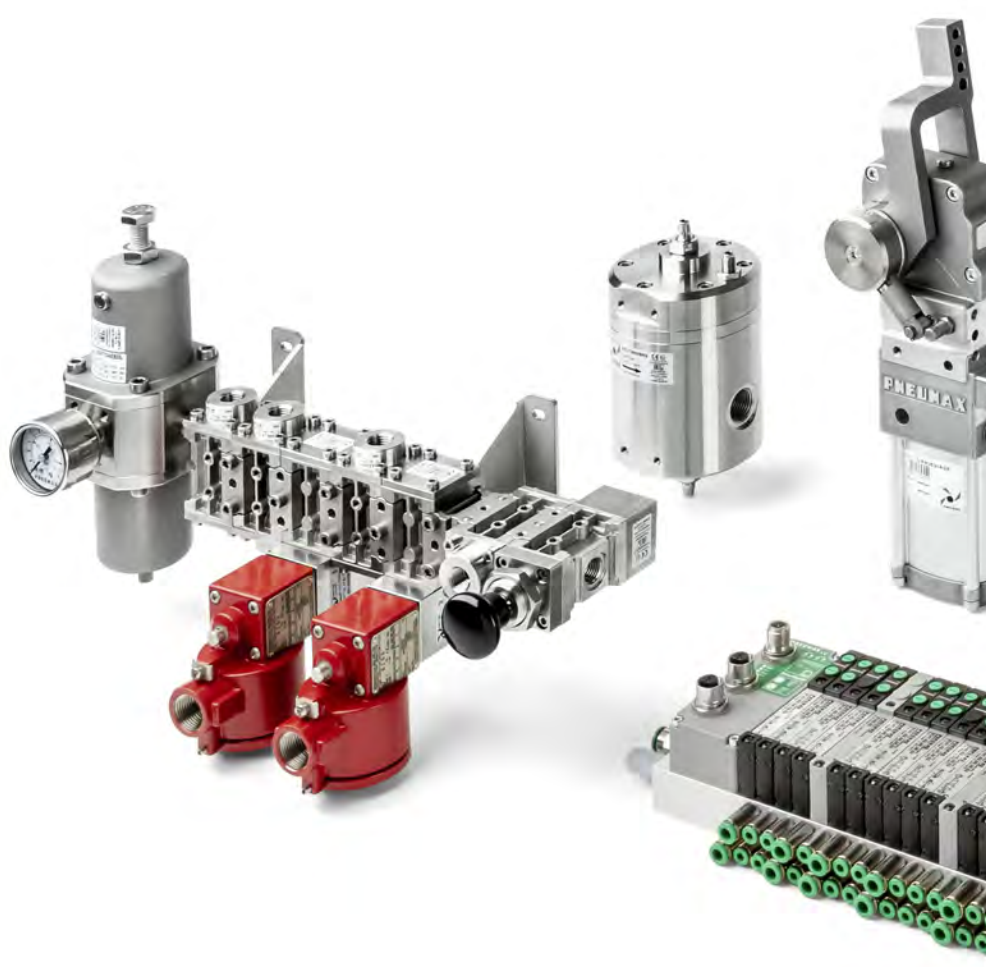
The international network includes 7 branches in Italy, 8 branches in Europe in addition to branches in the USA, Brazil, India, China and Singapore, and a vast network of distributors that guarantee presence in over 50 countries.

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

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

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

ent materials ranging from stainless steel to engineering polymers or from aluminium to brass. The organisational structure designed to maximise flexibility and the use of cutting-edge technologies ensure maximum efficiency both for the supply of standard components and the creation of completely customised solutions. At the same time, the development of mechatronic and digital expertise underlies the creation of integrated systems which, thanks to enabling technologies, are capa-





ble of meeting the requirements of Industry 4.0, from component interconnection to the ability to remotely control and manage component performance, without ever neglecting aspects such as optimising consumption.

FCM fittings

Food Contact Material

The food & beverage and food packaging sectors are two

of the sectors for which the company offers specific products such as the entire range of stainless steel components (cylinders, valves and solenoid valves, FRL, fittings) or FCM fittings which, in addition to ensuring reliability and high performance, comply with relevant international standards.

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

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





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

The tests include all component materials, already compliant with FC (Food Contact) standards, as well as plastic parts in POM (polyoxymethylene) and IXEF 1022FC (polyarylamide 50% GF) and metal parts in brass OT57 (CW510L with low lead content, NSF/ANSI 372 certified).

The certification guarantees component tightness under pressure, not only with drinking water but also with

other food fluids such as wine, beer and beverages in general.

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

www.pneumaxspa.com



PNEUMAX

SCANNY3D: GEOMETRIC DEFORMATION CONTROL ON GLASS BOTTLES



Scanny3D has designed and developed a double laser spot rotating 3D scanner. It is a patented device, 100% “Made in Italy” that performs a 360 ° scan without contact, at high speed, at very high resolution and in a completely automatic way.

The 3D scanner allows you to digitize and analyze bottles, plastic bottles, containers of any material and shape and various accessories.

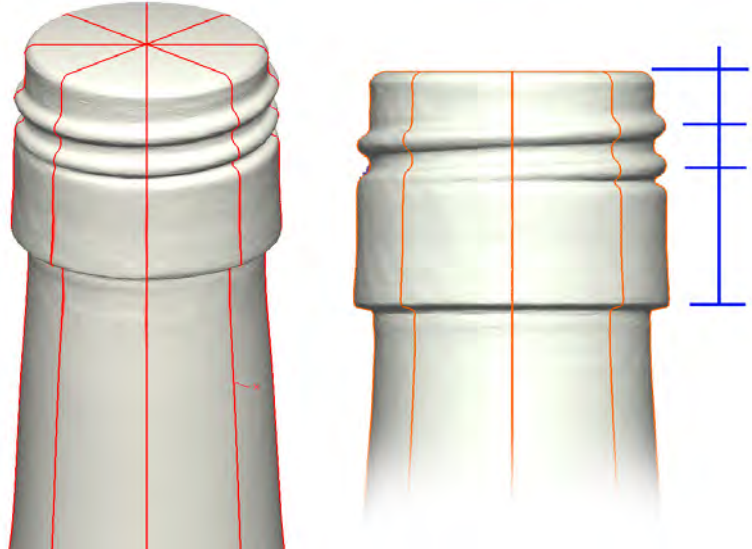
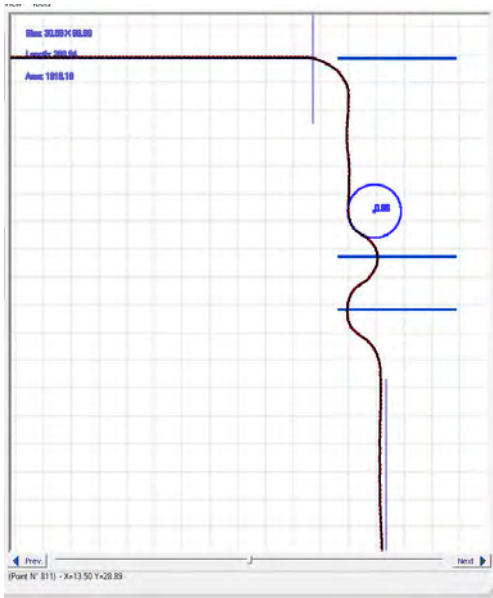
The device returns a high fidelity 3D model and the supplied software offers numerous functions designed specifically for the beverage, packaging and bottling sector, among which the possibility of exporting the 3D model as a “solid”, thus ensuring maximum compatibility with the main CAD-CAM software.

The scanner management software contains many features, including: section analysis and measurement; assessment of the centers of gravity; automatic alignment; symmetry calculation; quality check; evaluation of inclination and stability etc.

One of these functions, for example, allows you to obtain and analyze all the sections of the bottle, easily carry out all measurements, evaluate the centroids of the sections, align the 3D model based on the center of gravity or the symmetry of a section and more.

Among these numerous features, one is of particular importance for quality control on bottles.


This function allows you to geometrically and numerically evaluate the deformations of a bottle with respect to the “theoretical” model or with respect to a reference bottle.



With this function, the software automatically calculates and displays the ovality of a section of the bottle, the accuracy of the bottleneck screw, the symmetry of the neck, the inclination (slope) of the bottle with respect to the plane, any deformations in the lateral surface of the bottle, and much more.

The automatic screw control of the bottleneck, among other things, is very important to ensure a perfect closure of the cap.

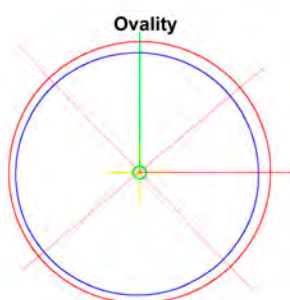
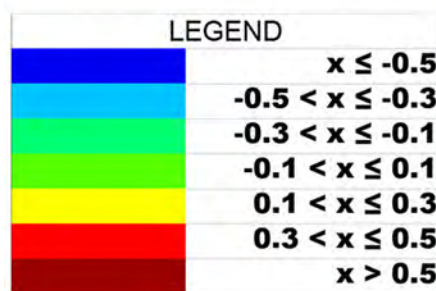
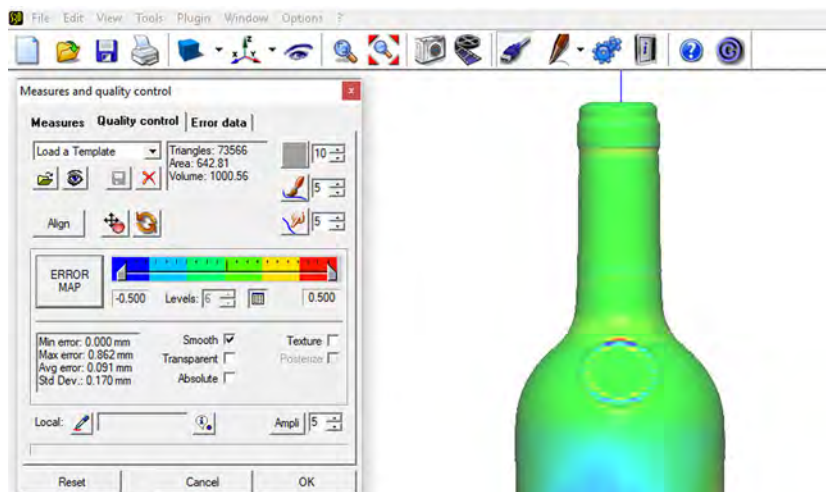
These geometric evaluations are carried out automatically by the software, which generates both a graphical and numerical report, and it is possible to export the results in various formats (eg Excel) for statistical purposes.

The constant mission of the R&D department is to design systems that are increasingly accurate, reliable but at the same time easy to use for the end customer, thanks to the use of cutting-edge technologies. 

www.scanny3d.com

SCANNY3D 

Sistemi di scansione laser 3D
3D laser scanning systems



“BAKING INNOVATIONS: FROM FLOURS TO 4.0 TECHNOLOGIES”

Bread, an ancient food as old as humanity itself,
continues to be a staple at the table today.

Its enduring success is due to its ability to evolve, adapt to the demands of increasingly knowledgeable and health-conscious consumers, and embrace the future with Industry 4.0 technologies.

Despite being an ancient art, baking continues to fully meet the needs and tastes of consumers today, offering ever-new solutions and a propensity for innovation. Evidence of this is the fact that 84.9% of Italians continue to enjoy the ritual of fresh bread and continue to buy it from the 20,000 artisan bakeries in operation, which produce about 1.5 million tons a year (source Aibi). However, Italians are buying less bread than in the past and less frequently, so much so that in 40 years, consumption has decreased by 65%, dropping to 85 grams daily per capita



by
Elisa Crotti



(source Associazione Panificatori di Concommercio Milano). On the other hand, sales of industrial bread have exploded, reaching over 216 tons (source NielsenQ), while many products have continued to grow, like sandwich bread (+8.5% in volume), buns, such as hamburger buns (+8.3%) and white bread (+5%).

These changes in consumption lead to a reflection: bread knows and must adapt to the new, paying maximum attention to quality and innovation, the two dictates of the market.

Bread from Origins to Table

The world of baking is vast and fascinating, with a rich history and an incredible variety of techniques, recipes, and culinary traditions. It seems that the first loaf was born by chance when prehistoric man discovered that crushed cereals mixed with water and heat produced an edible substance. This “primitive bread” was cooked directly on hot stones near the fire.

Then came the Egyptian and Mesopotamian civilizations, with more sophisticated techniques. But it was only with the discovery of yeast, probably through natural fermentation processes, that a breakthrough occurred. The use of yeast allowed for lighter and softer doughs, contributing to creating the bread as we know it and love today.

Many baking methods have ancient roots and are passed down from generation to generation. The use of natural yeast, long fermentation, fermented doughs, and artisan shaping techniques are just a few of the traditional elements still used. Many are the novelties already in place and many more await the sector.

Quality and Innovation of Raw Materials

Today's consumers like special recipes, with unusual raw materials and flours. Consider multigrain and healthy breads. Regarding health, the demand for gluten-free options (such as rice flour and almond flour) is continuously increasing, and bakeries are trying to develop tasty and high-quality recipes to meet this demand, with more nutritious and healthy proposals that include the use of whole flours, seeds, and alternative cereals like spelt and kamut, and legume flours, among which chickpea flour has won a place in the hearts of many consumers, thanks to its ability to add variety and nutritional value.

And if for those who bring bread to the table, craftsmanship remains an indisputable cornerstone, due to the growing awareness of health and the search for healthier options, with fewer additives and refined ingredients, natural fermentation, as a guarantee of traditionality and quality, is also gaining popularity. Although it requires more time, it allows for production with a better structure and a more complex flavor. Sourdough as a lifestyle choice, therefore, highly appreciated by the most attentive consumers.

On the quality front, there is also another aspect: the shelf-life and preservability of the product, leading to two consequences: a preference for smaller formats, to be consumed without waste, and a new love for the loaf.

The long duration of bread is crucial for purchase, especially in the logic of fighting waste: consider that, according to the Waste Watcher Report, in 2022, each Italian threw away an average of 1 kg of bread. In this regard, it is interesting to mention a recent three-year





research project, conducted by the Universities of Pisa and Florence, to extend the shelf-life of Tuscan bread, intervening on the characteristics of the wheat and using innovative preservation methods that allow it to last up to 40 days.

Technological Innovations

Although traditional techniques are still much appreciated and respected, the bakery sector boasts a series of interesting technological innovations that allow for accurately controlling the baking process.

Through the use of so-called smart ovens, it is possible to ensure a more precise and uniform baking of the bread. This begins with the management of temperature, which remains constant and is adjustable very accurately, ensuring uniformity. It then continues with the regulation of humidity inside the oven, fundamental for obtaining the desired crust and ensuring uniform heat distribution during baking.

Some smart ovens are equipped with advanced steam injection systems that allow controlling the quantity and distribution of steam inside the oven, preserving the internal softness of the bread. In addition, special sensors and monitoring systems allow automatically adjusting the temperature, humidity, and baking time according to the specific needs of the loaf being processed. Nothing is left to chance, therefore, not even consumption, since

some solutions are designed to maximize energy efficiency, reducing energy consumption during baking.

Innovation also concerns the use of robots and automated machines for dough, shaping, and baking bread, and the implementation of systems to control fermentation and leavening, capable of monitoring and regulating temperature and humidity.

Industry 4.0 is at the doorstep in the bakery sector, it's just a matter of letting it in.

While it's true that machines generally used in small-medium enterprises today are not interconnected and do not exchange data, thus lacking the ability to smartly manage operating parameters for process optimization, it's also true that soon, thanks to the spread of the Industry 4.0 model, it will be easier to optimize processes with the use of modern and internet-connected machinery. This, with the advantage of improving the production cycle, standardizing productions, and facilitating the work of operators. The joint use of Artificial Intelligence and the Internet of Things (IoT) will support small and medium-sized bakery industries to improve their organization and competitiveness in the market while fully respecting the environment.

Bread has come a long way, but its journey is just beginning, and those who can seize the opportunities offered by the sector will be able to explore the infinite horizons of this fascinating market.

THE CONFECTIONERY SECTOR IN THE ERA OF HEALTHY FOOD

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

New purchasing habits that, on one side, depend on the greater attention to eating disorders (in industrialized countries, gluten intolerance has grown by more than 20% in the last 5 years), but also on the perception the consumer have about these products understood as “healthier”.

Here then, the clean label becomes the lever that drives the purchase decision: the absence of dyes,

preservatives or allergens is one of the most appreciated characteristics.

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

A search for naturalness that affect the confectionery sector, which records growth rates before pandemic up to +8% per year, of which over 40% comes from bakery products, followed by chocolate and cocoa products (over 30% approximately), ice cream (15%) and confectionery. In this new, highly specialized market segment, it becomes essential for success, to know how to renew its own production and anticipate consumer trends, which





Understanding the taste of the modern consumer means giving priority to natural ingredients without additives, dyes or preservatives in favour of quality.

Cesarin studies new methodologies to preserve the authenticity of fruit and vegetable flavors for the sweet and savory industry.



are increasingly demanding in terms of naturalness and ethics.

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

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

An example of this is the line of Fruit HG with low water activity: it is a product studied in the Company Research Development Centre, that inhibits the activity

of water and keeps unaltered the taste and structural characteristics of the raw material, with a softness and a fresh flavour not comparable to a traditional dehydrated or freeze dry product.

Created as an inclusion for chocolate bars, today it finds its best use in the production of biscuits, energy bars and cereal mixes. The product is naturally gluten-free, contains no artificial colours and is OGM free.

Fruit HG Cesarin is also available in the Light version without added sugars (sweetened with maltitol) in the flavours most requested by the international market: from classic red and yellow fruits, to the more exotic flavours of mango, pineapple and papaya and the highly

appreciated lime and ginger, or in the version with Sorbitol for excellent resistance to high temperatures and soft texture after baking. Following the trend of freshness, naturalness and low sugar added, Cesarin offers as an alternative to the traditional candied fruit, the Semi-candied fruit TuttaFrutta, obtained by a cold process from the best fresh fruit on the market, ideal to garnish and fill baked products or ice cream.

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

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

the partial inhibition of the water activity naturally present in the fresh raw material.

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

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

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





The **MisterAlberto** line includes fruit jams and ice cream ripples with over 50% less sugar than the average standard products, designed to enhance some of the best Made in Italy products. In this case the choice falls on the natural sweetness of the raw material and on the nutritional properties of the fruit.

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

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

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

For more information:
Cesarin S.p.A Verona (Italy)
www.cesarin.it



Cesarin®
dal 1920



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 structure, 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



 **RePietro**


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 (Sie-

mens 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



SOREN: FULLY AUTOMATIC FOOD PRODUCTION PROCESSES

Soren Srl was founded in 1973 and it is an engineering and manufacturing company operating in the food processing sector. Initially focused on the national territory, today Soren is present in more than 80 countries worldwide and has over 600 customers.

Soren has a production area of approximately 10,000 square meters a couple of kilometers away from Milan, where all the macro-components of the production lines are designed and built, such as process tanks, scraped surface heat exchangers, continuous freezers , crystallizers, rotary pumps, etc.

Over the last decades, Soren has specialized in fully automatic food production processes, thanks also to a continuous push from customers in the search for the highest quality and technological innovation.

In order to be able to autonomously manage the entire production chain and after-sales assistance, Soren has internally developed





also the design and construction of the electrical and automation components.

The main, but not only, fields of application of our technology are:

- Pasteurized water-based creams for the bakery industry
- Ice-cream
- Margarine and shortenings
- Fat-based creams for biscuits and wafers
- Sauces, pestos and gravies.

More specifically, Soren is one of the biggest experts in the world regarding the crystallization process, which is the transition from a liquid phase to a solid (or semi-solid) phase of mixtures of water and fat in different percentages, through the use of the scraped surface heat transfer technology.

The use of this technology requires not only a deep knowledge of construction materials and process parameters, but also of product formulations.

This is why Soren is able to provide its customers with support throughout the design phase of a production line: starting from the study of the layout, all the way to the development of the recipes.

In 2023, today, Soren turns 50: let's keep on working together for the next 100! 🏛️

www.soren.it



EXHIBITIONS 2024-2025

PROSWEETS

28-31/01/2024 🏛️
COLOGNE

Fair for the sweets and snacks industry.

FRUIT LOGISTICA

07-09/02/2024 🏛️
BERLIN

Fair for fruit and vegetables.

BEER&FOOD ATTRACTION

18-20/02/2024 🏛️
RIMINI

Fair for beers, drinks,
food and trends.

MECSPE

06-08/03/2024 🏛️
BOLOGNA

Fair for the manufacturing industry.

PROWEIN

10-12/03/2024 🏛️
DUSSELDORF

International wine & spirits exhibition.

ANUGA FOODTEC

19-22/03/2024 🏛️
COLOGNE

Fair on food
and beverage technology.

VINITALY

04-08/04/2024 🏛️
VERONA

International
wine & spirits exhibition.

LATINPACK

16-18/04/2024 🏛️
SANTIAGO CHILE

International packaging
trade fair.

HISPACK

07-10/05/2024 🏛️
BARCELONA

Technology fair for packaging.

CIBUS

07-10/05/2024 🏛️
PARMA

Fair of food product.

MACFRUT

08-10/05/2024 🏛️
RIMINI

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

SPS/IPC/DRIVES/ ITALIA

28-30/05/2024 🏛️
PARMA

Fair for industrial automation sector.

FISPAL

18-21/06/2024 🏛️
SÃO PAULO

Fair for product
from packaging.

FACHPACK

24-26/09/2024 🏛️
NUREMBERG

International
packaging trade fair.

MCTER expo

16-17/10/24 🏛️
VERONA

Exhibition on energy efficiency.

MIDDLE EAST 2024/25

GULFOOD

19-23/02/2024 🏛️
DUBAI

Fair for food and hospitality.

DJAZAGRO

22-25/04/2024 🏛️
ALGERI

Fair for companies
of the agro-food sector.

PROPACK ASIA

12-15/06/2024 🏛️
BANGKOK

Fair for packaging, bakery, pastry.

IRAN FOOD+BEV TEC

16-19/06/2024 🏛️
TEHRAN

Fair for food, beverage&packaging
technology.

GULFHOST

05-07/11/2024 🏛️
DUBAI

Fair of hospitality.

HOSPITALITY QATAR

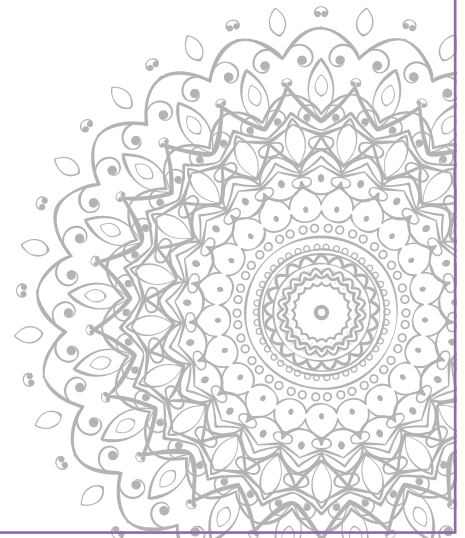
12-14/11/2024 🏛️
DOHA

Fair of Hospitality
and HORECA.

GULFOOD MANUFACTURING

05-07/11/2024 🏛️
DUBAI

Fair for packaging
and plants.



EXHIBITIONS 2024-2025

SIAL

19-23/10/2024 🏛️

PARIS

Fair on food products.

SUDBACK

26-29/10/2024

STUTTGART

Fair for bakery and confectionery.

ALL4PACK

04-07/11/2024 🏛️

PARIS

Exhibition about
packaging technology.

SIMEI

12-15/11/2024 🏛️

MILAN

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

BRAU BEVIALE

26-28/11/2024 🏛️

NUREMBERG

Fair of production
of beer and soft drinks.

TUTTOFOOD

05-08/05/2025 🏛️

MILAN

Fair B2B show to food & beverage.

INTERPACK

07-13/05/2025 🏛️

DUSSELDORF

Technology focused
on packaging, bakery, pastry technology.

IBA

18-22/05/2025 🏛️

MONACO

Fair for the bakery and confectionery
industry.

IPACK-IMA

27-30/05/2025 🏛️

MILAN

Exhibition about food and non-food
processing and packaging.

DRINKTEC

15-19/09/2025 🏛️

MONACO

Fair for the beverage,
liquid food industry.

POWTECH

23-25/09/2025 🏛️

NUREMBERG

The trade fair
for powder processing.

HOST

17-21/10/2025 🏛️

MILAN

Fair for bakery production
and for the hospitality.

SAVE

2026 🏛️

VERONA

Fair for automation,
instrumentation, sensors.

CIBUS TEC

27-30/10/2026 🏛️

PARMA

Fair for food & beverage
technologies trends.



AGRINEXT AWARDS & CONFERENCE
42/45-47

7327 Hanover Pkwy STE D 20770
Greenbelt - USA

CAMA GROUP
20/22

Via Verdi, 13
23847 Molteno - LC - Italy

CESARIN SPA
66/69

Via Moschina, 3
37030 Montecchia di Crosara - VR
Italy

CLEVERTECH SRL
16/19

Via Brodolini, 18/A
42023 Cadelbosco Sopra - RE - Italy

FRUTTHERA GROWERS SOC. COOP. AGR.
36-37

Via Provinciale, 15
75020 Scanzano Jonico - MT - Italy

GEA MECHANICAL EQUIPMENT ITALIA SPA
34-35

Via A. M. Da Erba Edoari, 29/A
43123 Parma - Italy

GORRERI SRL
I COV

Via Alfieri, 11
42041 Sorbolo Levante di Brescello - RE - Italy

**IPAMA (INDIAN PRINTING PACKAGING & ALLIED
MACHINERY MANUFACTURERS' ASSOCIATION)**
51

Plot No. C - 54, Sector - 62,
Institutional Area, 201307 Noida - India

LAWER SPA
46-48

Via Amendola, 12/14
13836 Cossato - BI - Italy

MAKRO LABELLING SRL
7/9

Via S. Giovanna d'Arco, 9
46044 Goito - MN - Italy

NVC - NETHERLANDS PACKAGING CENTRE
23/26

Stationsplein 9k - PO BOX 164
2801 AK Gouda - The Netherlands

ORION ENGINEERING SRL
38-39

Via Pietro Gobetti, 6
43036 Fidenza - PR - Italy

PND SRL
IV COP-30/32

Via Brancaccio, 11
84018 Scafati - SA - Italy

PNEUMAX SPA
58/60

Via Cascina Barbellina, 10
24050 Lurano - BG - Italy

RE PIETRO SRL
70-71

Via G. Galilei, 55
20083 Gaggiano - MI - Italy

SACMI PACKAGING & CHOCOLATE
14-15

Via Trebbia, 22
Loc. Quinto dè Stampi
20089 Rozzano - MI - Italy

SCANNY3D SRL
61-62

Via Archetti - Zona Artigianale, 15
63831 Rapagnano - FM - Italy

SMI SPA - SMI GROUP
4/6

Via Carlo Ceresa, 10
24015 San Giovanni Bianco - BG
Italy

TECNO PACK SPA
10/13

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

XNEXT SPA
49-50

Via Valtorta 48,
20127 Milano - Italy

4|5|6 Sep 2024
Hong Kong

**ASIA FRUIT
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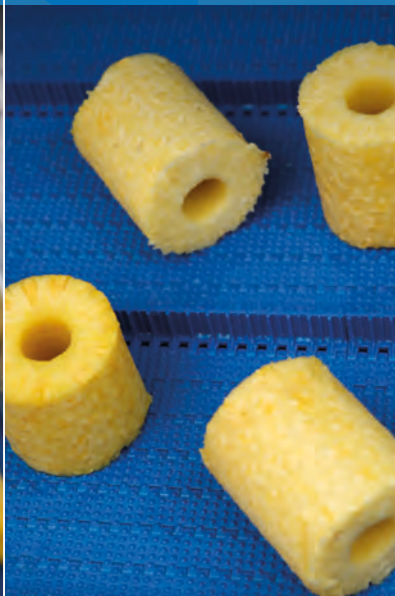
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