

# FOOD

## PROCESSING

it. MAGAZINE  
n° 2-2022

### BEVERAGE & PACKAGING

### PROCESS AND PACKAGING



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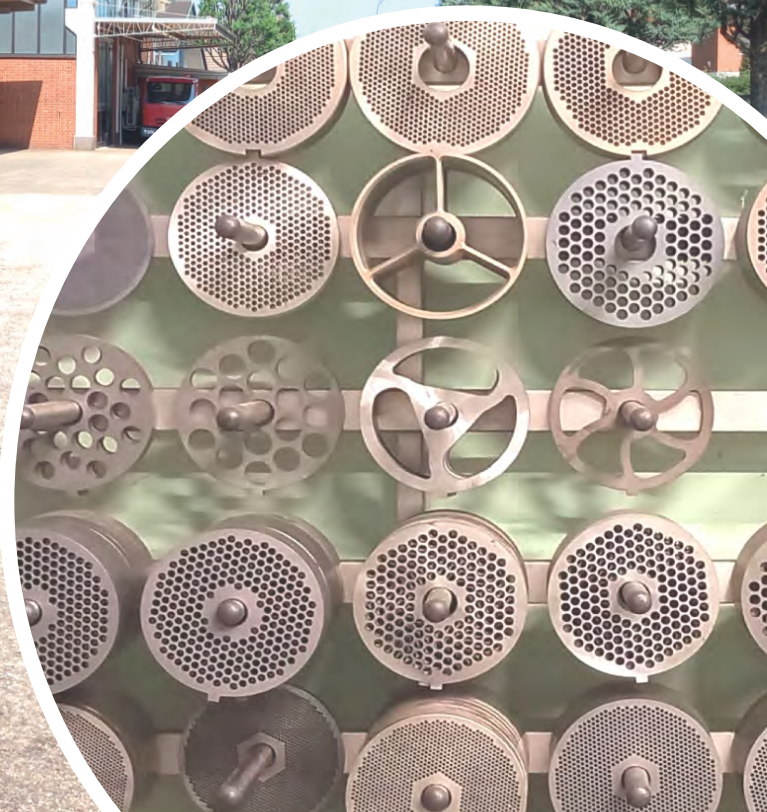
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EXHIBITIONS



SONIA V. MAFFIZZONI  
*Editorial Manager*

As I write this editorial, a dark cloud hangs over us and the consequences of the international geopolitical events are starting to make themselves felt. It is evident, however – as experience teaches and history confirms – that the food farming industry is capable of great resilience: it may have to change shape and adapt, but it will resist. Just as nature does. Some great themes will show us the way forward in the months to come, marking the boundary between what is destined to come to an end, in other words, the “old way” of doing things, and what will find a receptive market.

I am thinking of the sustainability of our industry, a theme that is particularly dear to consumers and widely interiorized by trade operators, and I also refer to the circular economy, which guarantees the survival of the planet and maximizes emission reduction.

How to move in the right direction? The answer is staring us in the face every day: the new technologies, for prevention, monitoring, and distribution, at each phase of the production process.

In fact, these technologies are featured in numerous pages of this edition, designed to help us find the right way forward, and the necessary drive.



## NAVATTA GROUP FOOD PROCESSING SRL

EQUIPMENT AND LINES FOR THE INTEGRATED PROCESSING OF FRUIT AND VEGETABLES.  
**PG. 34/36**



## SMART PACKAGING HUB

WHAT IS THE LATEST, INNOVATIVE AND COSTEFFECTIVE TREND IN THE PRIMARY, SECONDARY AND TERTIARY PACKAGING FOR FOOD SECTOR IN ITALY? **PG. 70/73**



# FOOD PROCESSING



## LAWER SPA

EXPERTS IN CREATIVITY,  
INNOVATION & SUSTAINABILITY.  
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## MINI MOTOR SPA

THE CHOICE OF BEING UNIQUE: MINI MOTOR  
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## CIBUSTEC FORUM 2022

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## “ TECHNOLOGY MEETS AGRICULTURE AND IT'S LOVE AT FIRST SIGHT ”

From small family-run farms to multinationals, many operators now rely on technology to monitor their production. It's not so much a change of direction, but the application of new tools, enabling an unprecedented saving of energy and labour costs. Welcome to agriculture 4.0



by Elisa Crotti

Everything is monitored in today's world, from calorie consumption to the number of kilometres a car can travel on a full tank, from sleep quality to the real-time performance of our investments. Can agriculture afford to lag behind? Certainly not. Moved by this precise vision, Matteo Vanotti, the farmer's son and engineer who founded xFarm, has chosen to place intelligent resources at the service of an industry that moves at the pace of nature, to facilitate those who supply us with food, starting from the seed.

While dreaming of an app to manage his own company, Vanotti happened to meet Farm Technologies, a firm specialized in agronomy and algorithms applied to irrigation. That was in 2019 and, since then, agriculture 4.0 has become a trending topic. In 2021 the two Italian start-ups merged to become xFarm Technologies. 6% of Italian arable land is comprised in their network, 90,000 farms have literally applied their technologies in the field. The advantages of such a choice are re-



Nicolò Barbano  
Marketing manager  
di xFarm Technologies





counted by Nicolò Barbano, Marketing manager of xFarm Technologies.

### **Barbano, what distinguishes traditional farming methods from technology-driven farming?**

«I could sum it up in one word: optimization. Technology supports decision-making by enabling the optimization of practically all resources.

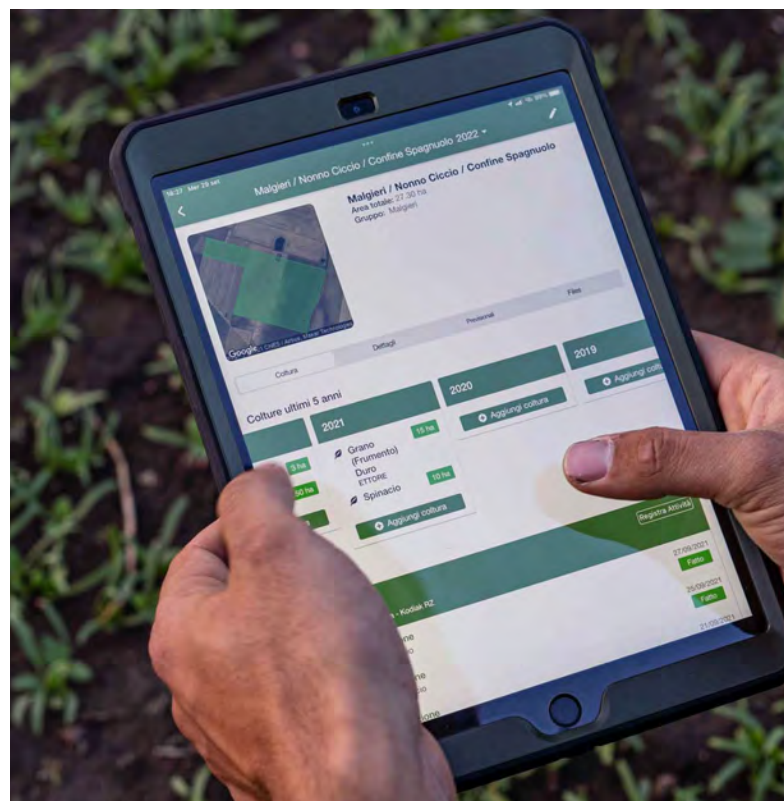
The first thing that comes to mind is water: by monitoring such parameters as the weather forecast and humidity, we can achieve a saving in water consumption of up to 40%. Likewise, in the ambit of plant protection (and we know how aware consumers are of residue on food products), we can limit the consumption of plant protection products by up to 10%. If that figure sounds irrelevant, let's consider the real cost of administering plant protection in terms of machinery usage and man hours».

### **How can a farmer know in advance how much plant-protection product to use? On which data do you base this decision?**

«We work on two fronts with two different types of treatment. Regarding plant fungus, we measure the environmental parameters, and we cross-reference them with weather forecast data to calculate humidity levels which, as you well know, impact the presence and development of fungi. As far as insects are concerned, we have designed special traps which attract them and analyse the previous generation's population. In this way, we are able to forecast the number of eggs and the entity of the new generation, and therefore optimize the decision as to whether and when to intervene to protect the crops».

### **That's quite fascinating. What sort of clients employ your services?**

«People of all kinds, really. We work for small firms run by farmer-entrepreneurs who "fall in love" with apps and almost enjoy themselves during the monitoring of the process, and then there are multinational companies that take our technologies to the other side of the world, to Brazil or Colombia, to monitor hectares and hectares of coffee plantations. But there are also clients that you would never expect to encounter, such as companies that manage woodlands and national parks on





the Apennines, or farms run by chefs and famous footballers. We started out as a niche operator but now the mainstream market is showing great interest».

### **Driven by a greater attention to sustainability?**

«Certainly, it's a very topical issue. The sort of sustainability we refer to is extremely extensive and consists of reduced consumption. It is the sustainability that derives from saved actions, in terms of resources energy and time. Then, as far as the processing supply chain is concerned, until recently, we merely estimated the impact of production but now we can even calculate each individual process and offer corrective tools, in agreement with the company agronomists. In this way, decision-making becomes a mindful process. Did we use the wrong fertilizer? Fine, for the next crop we will take the necessary corrective actions to reduce the impact leading up to the end-product».

### **What sort of crops are supported by your platform?**

«There are as many as four hundred of them. But the most common crops in Italy amount to about twenty, cereals first and foremost, followed by vines, fruit, and olives. We were fortunate to start up in a country like Italy which has a wide variety of crops. This has given us the possibility to consolidate our expertise and satisfy the most diversified requirements».

### **What can you tell us about public funding?**

«There are various types of grants, all focused on agriculture 4.0. They really have changed the look of this sector. I refer to the heavy investments in agricultural machinery: how many farmers have renewed their fleet

in the past two years? This has been an interesting opportunity, enabling us to extend our technology to the fleets. So, today's farmers can monitor their machines in real time. It's all part of one big monitoring system that responds to the idea of optimization».

### **Are we witnessing a sort of revolution in this business?**

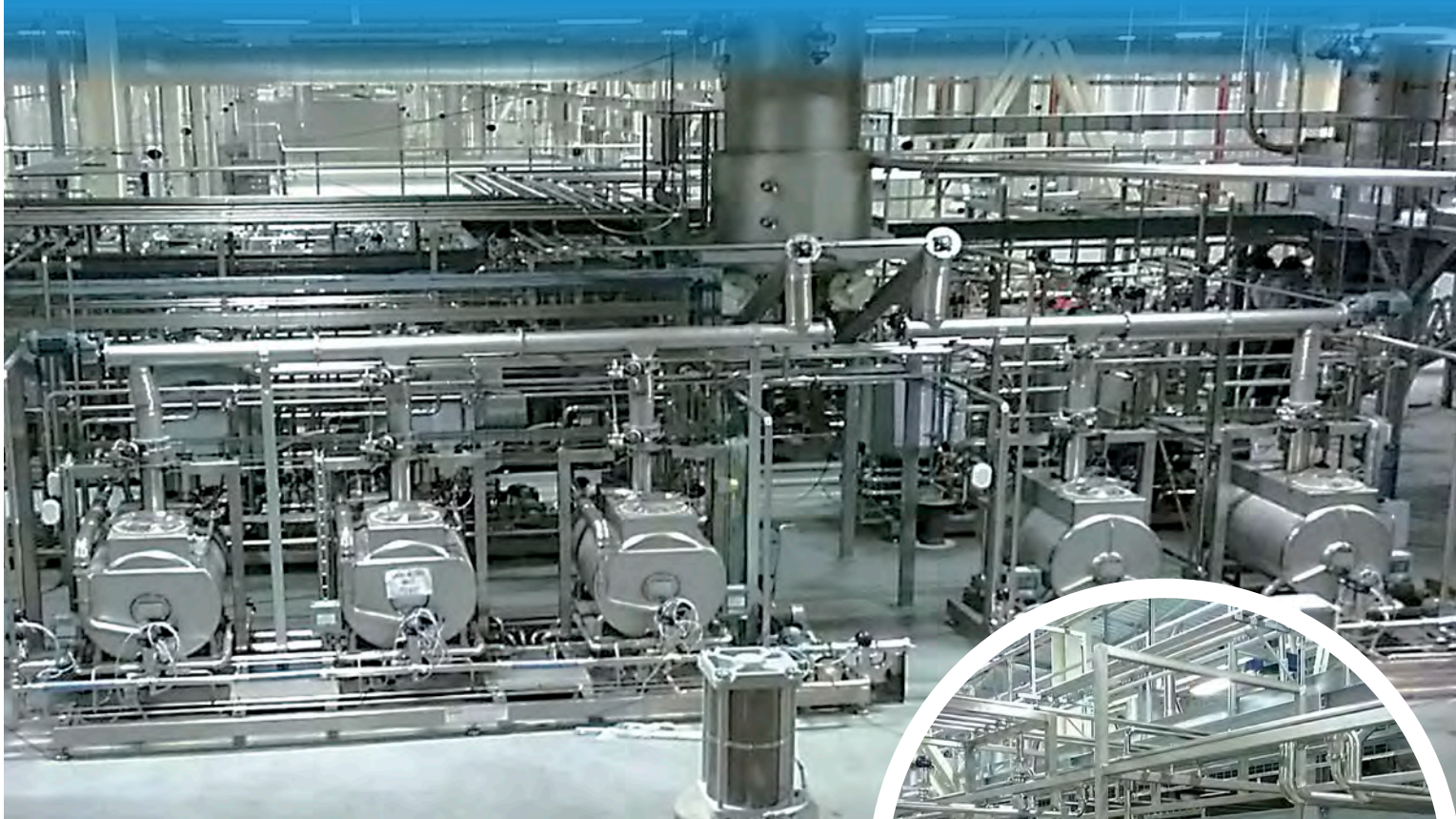
«A radical change is taking place and we can see it happening. Just three years ago, we set up our company and today six per cent of Italian fields are already managed by means of xFarm Technologies. When we entered the market, we placed the accent on trust as our key value. This is a trade in which word of mouth plays an important role, one in which trust is essential and we know the farming business because our founder has the same DNA, so to speak. We are now working on mindfulness: we hold educational sessions in schools with projects aimed at training students and teachers in the ambit of agriculture 4.0, and we even go as far as digitalizing the school's teaching activities. Furthermore, we have founded an Academy targeting technical operators, experts, agronomists, and farmers. This is another way to promote culture, because change can only stem from awareness».

### **Quite true. What will your next steps be?**

«Our biggest piece of news is that we are opening an office in Barcelona in the coming weeks, to serve the Spanish, Portuguese and Moroccan markets. As I already mentioned, we started business in a complex country, whose agriculture is highly variegated. We are now going to address these countries which are decidedly more straightforward. We will also be taking our solutions there, and we are more than ready to do so».

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## Industries



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**ALBRIGI**  
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at saving money, reducing costs, time, pollution and inconveniences, as well as increasing production and above all helping its customers to obtain a prestigious product of the highest quality.

Following the evolution of the market and the production needs, Albrigi creates both outdoor and indoor plants for the storage and mixing of food liquids in compliance with the safety regulations for those who use them, therefore the HACCP, FDA, PED,

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All systems are complete with pumps, piping, weight and level sensors, liter counters, manual and pneumatic valves, saturation with inert gas, nitrogen, CO<sub>2</sub>, argon, high performance dedicated electrical control panels, an indispensable tool to operate any P.C. system and PLC for the management of transfer processes that operate in





both manual and automatic mode with remote control process, managed by customised programs with algorithms reducing manpower by 70%.

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Albrigi: ingenuity, style and technology at the service of the food industry. 

[www.albrigi.it](http://www.albrigi.it)





# B.S. SRL, systems and machinery for industrial food processing and automation

**BS** srl was founded in 1980 in Parma, at the heart of the Italian Food Valley and, since then, its core business has been the production of systems and machinery for industrial food processing and automation.



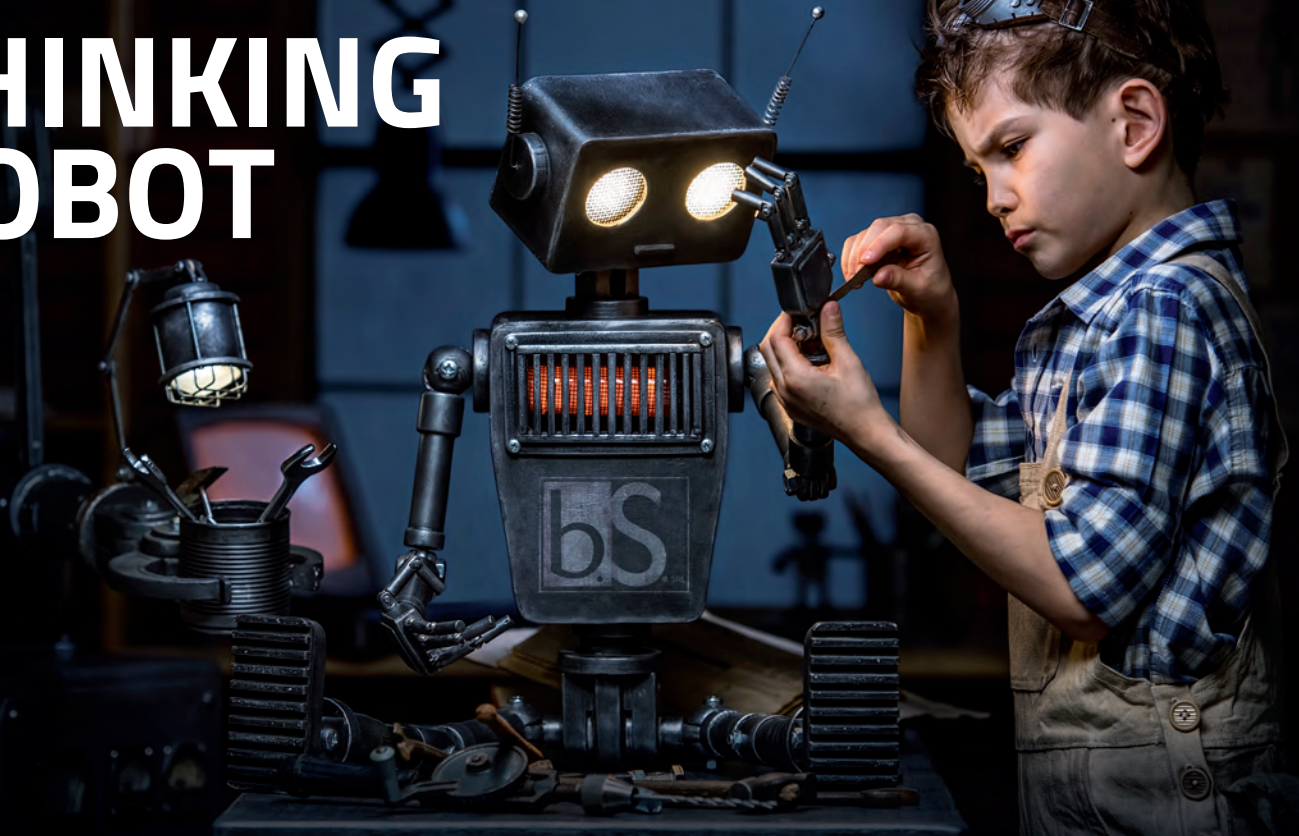
A growing desire for innovation, together with a consolidated reputation and



# Food Technology

Food Production Machines

## THINKING ROBOT



SANDWICH



SANDWICH LINE

## B.S. Pocket

# Sandwich

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📍 B.S. Srl: Via Minozzi, 3/A - 43122 Parma

✉ [info@bsparma.it](mailto:info@bsparma.it)



reliability have allowed B.S. to acquire and develop an up-to-date and advanced know-how in the food-tech trade.

By creating a partnership with its clients and conducting targeted market analyses, B.S. is able to identify the needs of the industry effectively and precisely, with a view to designing and producing special custom-built solutions, capable of delivering high standards of performance and product quality.

B.S. responds to a constant and exponentially rapid technological development by producing modern technological machinery with the capacity to anticipate future trends.

### OUR MANTRA HAS ALWAYS BEEN "THINK ROBOTIC"

### BS is very proud to present the latest novelty: the "B.S. POCKET" Sandwich Line

The system can process several sandwiches at the same time, enabling high levels of productivity.

A single block containing all the mechanisms for making pocket sandwiches.

### PRODUCTIVITY

The B.S. POCKET can produce up to 100 pcs / min. with different types of filling, from sweet to savory.

All the different settings can be saved in the recipe for easy recall.

### HYGIENE

The BS pocket line enables fast and safe cleaning operations.

The various parts requiring sanitization can be removed without the use of special keys, or washed directly on the line.

### FLEXIBILITY

The machine is equipped with Brushless motors on each station and dosing system.



This makes the system very flexible, allowing for optimal adjustments on each station according to the type of product to be processed.

### HOW IT WORKS

The line is divided into 6 phases: bread deposit, 2 sauce dosing groups, sandwich rotation, slicing station, and unloading.

The bread loaded into the machine is transferred directly onto the conveyor belt by means of a special mecha-

nical arm,. When the line moves forward, it positions the bread under the two dosing stations, before proceeding to transfer it under the closing station from where it is carried to the slicing station.

The last station will unload the sandwich onto the outfeed belt, which will carry the product to the packaging machine". 🏠

[www.bsparma.it](http://www.bsparma.it)



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tomatoes, legumes  
and vegetables alive



# PELLACINI Food Tech in Food Valley

**T**he Pellacini family started the business at the end of the 19th century, in Parma, in today's Food Valley. Working in synergy with the first canning industries, Pellacini has experienced all the growth phases of this sector.

Thanks also to an experience gained in the international field, today it is able to respond to the demands of a market that is increasingly attentive to productivity, safety and economic and environmental sustainability.

Collaborating today with the most important and qualified companies in the

technical sector, Pellacini designs and produces complete lines, as well as all the machines and components for the production of creams, purees and fruit concentrates, juices, nectars, jams, vegetable preserves, sauces, and vegetable concentrates. The range is then completed with: machines for heat treatments, pasteurization, sterilization both in autoclave and in continuous,

aseptic filling, enzymatic treatments and recovery of production waste.

Pellacini technology is extremely flexible, reliable, easy to maintain, updated and present in the main international markets: Europe, South America, North Africa, the Middle East and the Far East.

**Customer and project** are the heart of the Pellacini philosophy, thanks to the new production method, "Pellacini Tailoring System": a process that, having eliminated its production constraints, allows you to create the perfect equipment for each customer,

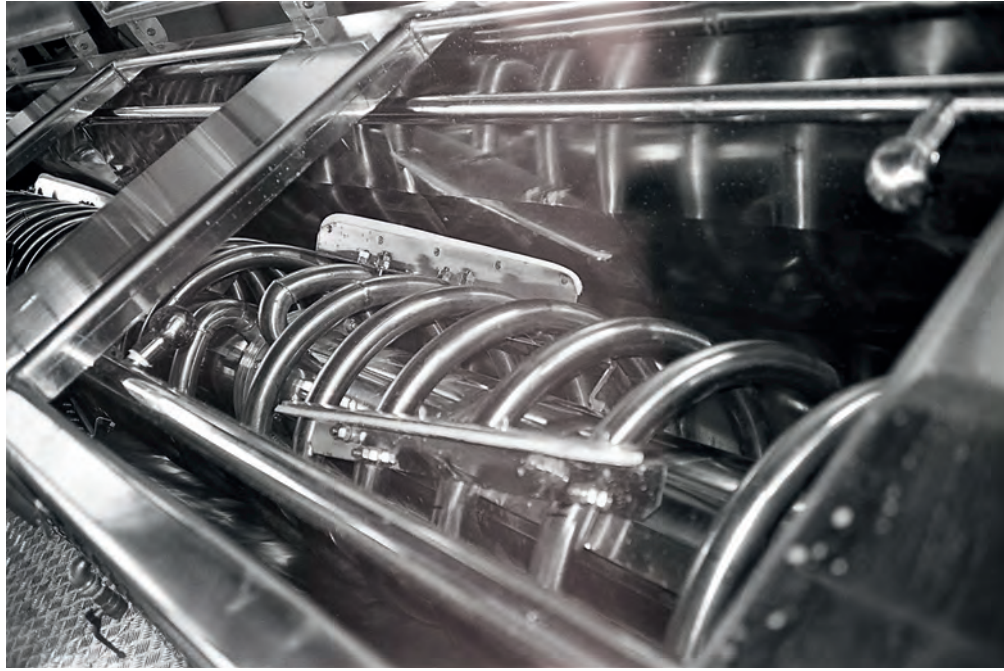




entrusting its production to workshops carefully selected and specialized in individual processes.

The global food process sector is made up of consolidated and established technologies in which the residual space for innovation would seem little, but today more than ever with the affirmation of the issues of sustainability and energy and production efficiency, a space for evolution opens up in the production processes which concern in particular the food sector. And it is precisely in this direction that Pellacini directs its research more, as evidenced by some projects already established on the market concerning the **recovery of production waste** and the production of **rotary sieve pulpers and refiners**.

The recovery of production waste is a new technology that allows the **reuse of 95% of waste** from passers and refiners: it is a totally natural process and does not involve the use of any chemical substance foreign to the product. A diluted cream is obtained which maintains the color and aroma of the raw material and which can be reintroduced into the processing line. The management of the whole process is completely automatic and does not require the presence of an operator, there is also an automatic C.I.P. washing system.



With a view to production and energy efficiency Pellacini designs and manufactures a range of pulpers / refiners that allow to work, without interruptions and maintaining a constant

yield, all highly viscous or low humidity products such as berries, rose hips, mustard, products of the undergrowth, garlic and the like. The machines are equipped with a system that keeps the



internal sieve clean automatically and continuously, keeping the machine yield constant and thus **helping to reduce energy consumption** in relation to the quantities produced.

Pellacini's production ranges in many fields of the process industry, producing and designing machines and plants for:

- fruit single strength purees and pulps, nectars, natural fruit juices and flat drinks, jams and concentrates, both of fruit in a temperate and tropical climate;
- tomato paste, "Passata", pizza sauce, tomato pulp and cubes;
- other tomato derivatives such as: ketchup, spicy sauce and different sauces;
- vegetable sauces, pepper sauces, baby food, canned legumes, harissa sauce;

- production lines of clear and cloudy juice starting from fresh product.

**Aseptic Packaging machines:**

- aseptic fillers, in various models, with one or two heads, for: liquid, dense and semi-dense products, products in pieces, fruit and tomatoes cut up to 25 mm, in flexible aseptic bags of 200 kg (Bag-in-drum) or 1000 kg (Bag-in-bin).

**Machines and plants for defrosting and cooking:**


- vacuum cookers for jams, with double bottom and rotating coil;
- rotating coil defrosts for IQF and products in pieces;
- blancher with rotating drum for legumes;
- cooking groups;
- continuous multi-effect evaporators

for heat-sensitive products even with high viscosity.

**Machines and plants for extraction, milling and pitting, in particular:**

- centrifugal extractors and turbo extractors for fruit, tomatoes and vegetables;
- mills and crushers for fruit and vegetables;
- de-pulpers for peach stones, apricots, cherries, plums;
- roller pitting machines.

**Machines and plants for enzymatic treatments, in particular:**

- specific enzymatic inactivators for fruits and tomatoes;
- enzyme treatment and dosage groups. 

[www.pellacini.com](http://www.pellacini.com)



# FRUIT PROCESSING INNOVATION



CERERE 6000

THE BANANA PEELER  
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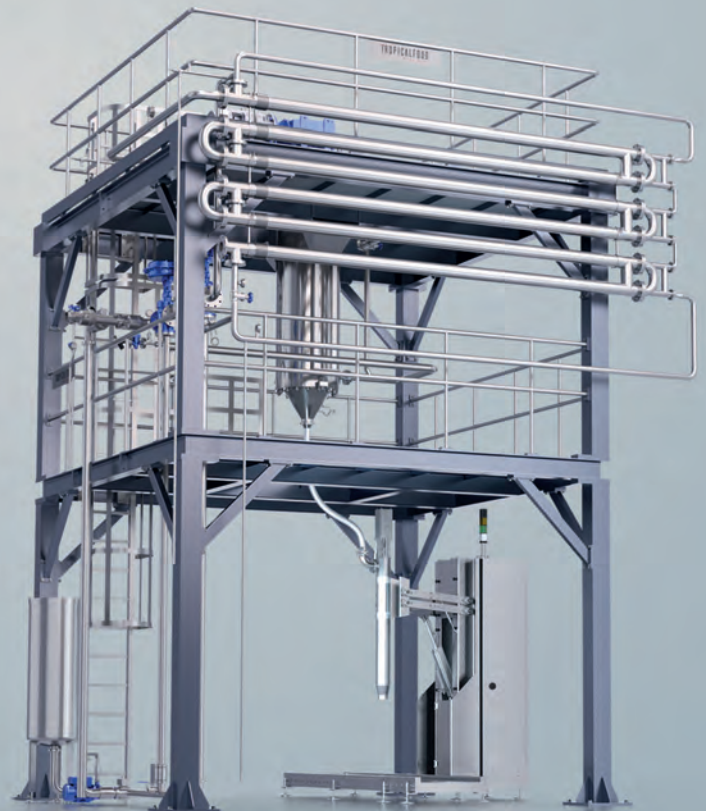


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26 - 29  
April 2022

HALL 10.1

STAND D-008 | E-007

# CUTTING-EDGE TECHNOLOGY, research and professional ethics serving the clients' needs

**W**ith decades of field experience on its back, the Italy-headquartered Tropical Food Machinery is a leading company in the global field of fruit processing machinery. Founded in the late 1970s by a pioneering Italian

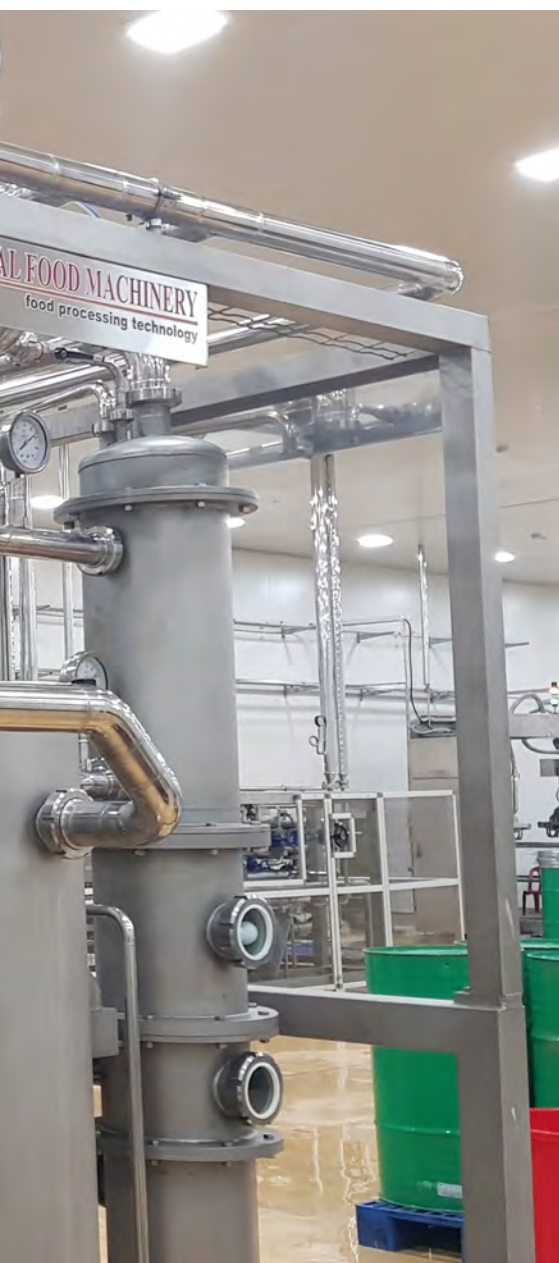
**TROPICALFOOD**  
MACHINERY





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

The ongoing research and development of new fruit processing solutions underpins the technological advancement of the company. In recent years alone, various new machines have been launched, such as: the "Aroma Recovery" machine and, in 2021, the new automatic banana peeler,



## International FoodTec Award 2021

Innovation Magazine

"Cerere 6000". The latter has won an International Food

Tech award from DLG, which is in fact engaged in evaluating and awarding revolutionary developments in terms of innovation, sustainability, and efficiency destined for use in the food industry, with an award-giving ceremony held during the Anuga Food Tec event. The latest but by no means less important system developed by Tropical Food is destined to revolutionize the production of frozen fruit juices.

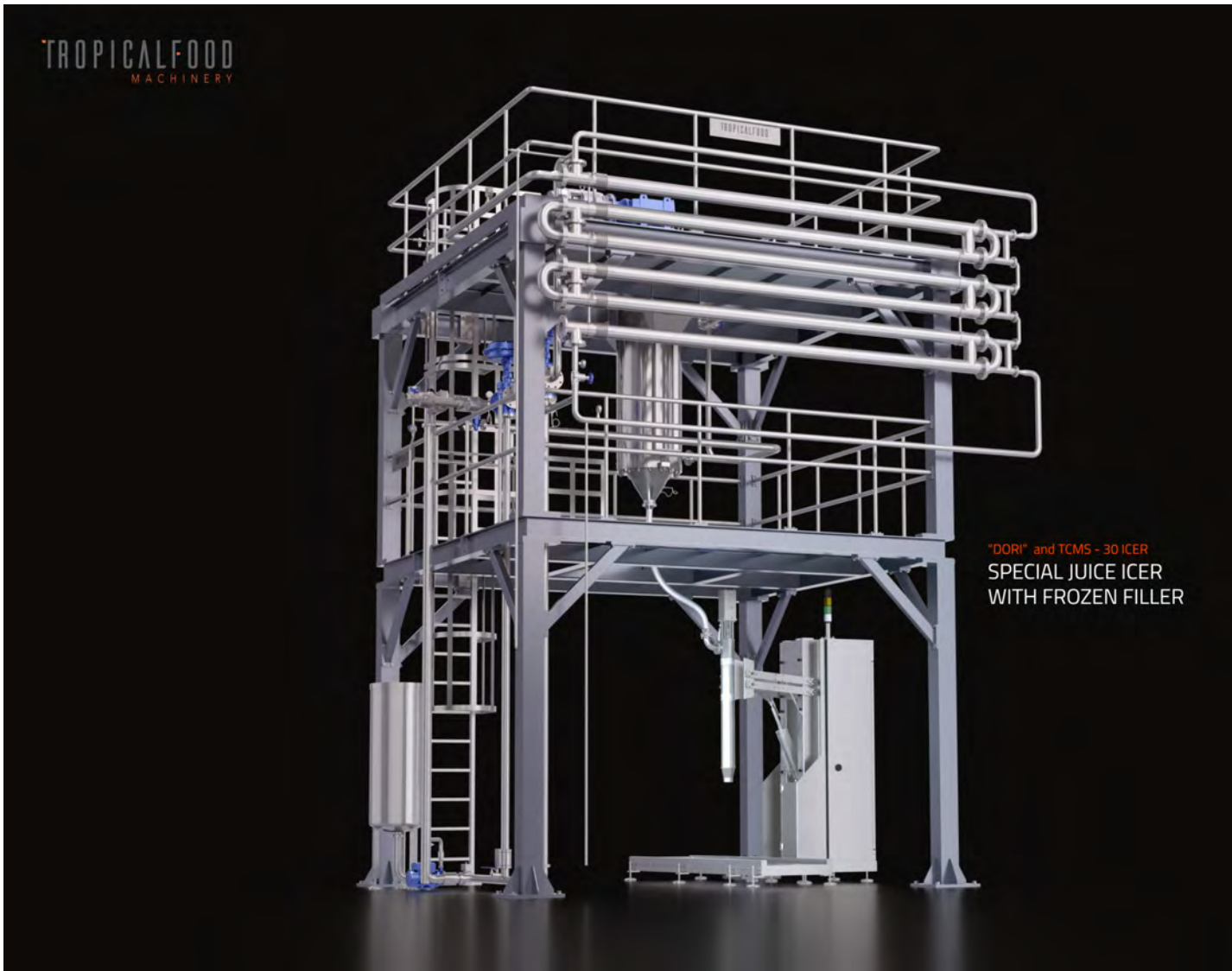
The new Icer System designed by the company is the first ever to effect the freezing process directly on the production line, thus avoiding the use of special refrigerator cells once the juice is extracted.

This translates into an immediate advantage in terms of cost and en-

ergy saving, 30% less than traditional techniques, in an industry which has achieved an ever-greater market share in recent years. Consequently, there is no longer any need to subject the "blast chilled" product to thermal processes which negatively impact the aroma and taste of the end-product.

Brazil dominates the international market for frozen concentrated orange juice. By the mid 1980s, Brazil accounted for about 80 percent of world exports of the product. Brazilian producers supplied more than 94 percent of U.S. imports of the product in the 1980s and accounted for 50 percent of sales in the U.S. market.

The dynamism of the Brazilian industry is attributable to Brazil's comparative advantage and to the series of climate



"DORI" and TCMS - 30 ICER  
SPECIAL JUICE ICER  
WITH FROZEN FILLER

shocks to Florida's orange groves. In Brazil, the industry is largely in the hands of four large firms, who sell 80 percent of their products to a few large U.S. firms, at significant price rebates.

Florida orange growers, beset by import competition and climate shocks, turned to unfair trade laws for protection in the early 1980s, relying on them increasingly as a substitute for safeguard actions.


Because of Brazil's interventionist trade policies, the prevailing U.S. belief was that any Brazilian industry was guilty of unfair trade practices until proven innocent. Unfair trade actions have had

a particularly negative impact on their supposed beneficiary, the U.S. citrus industry. The antidumping cases were used to protect orange growers at the expense of U.S. juice processors.

Their effect has been to strengthen the oligopoly-oligopsony relationship between Brazilian producers and their U.S. partners, further hindering the competition prospects in the world market for frozen concentrated orange juice.

Every line is designed in-house and then built and tested before every and each delivery. This enables a complete control over quality and produc-

tive speed, creating a strong sense of responsibility within the company's workforce. In addition to that, Tropical Food Machinery boasts a comprehensive after-sales support service that is able to provide spare parts and a prompt technical support if the need should arise.

In recent years, the interest of the retailers, driven by the increasingly tasteful market demand, has headed towards the constant improvement of the organoleptic characteristics of their products. Waste reduction is also a growing focus. 

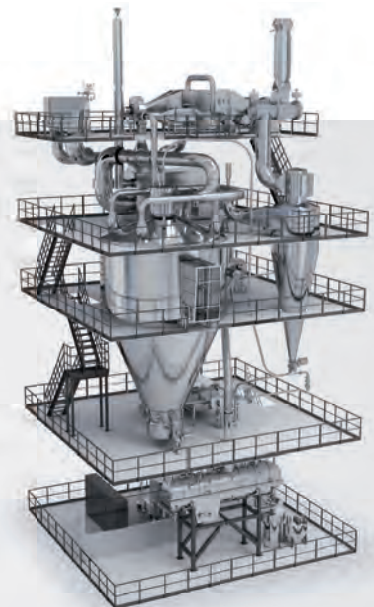
[www.tropicalfood.net](http://www.tropicalfood.net)



# Mixed Flavours

## GLOBAL PARTNER FOR **FOOD** INDUSTRY

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



# ICF & WELKO: colours and fragrances for everyday life



**F**or thousands of years, man has been dedicating himself to the preparation of food, not only to satisfy the taste and the sense of smell, but also to provide a certain aesthetic pleasure to those who receive it.

All food has always been combined with spices and other organic substances to change its taste, smell and appearance.

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

Colours and flavours in powder form have always been necessary in both the private and industrial circle for the preparation of foods, fragrances





*Guarantee a production process without contamination that could compromise the quality of flavors or smells.*



and other chemical and non-chemical products that present themselves to our sensory organs. It is therefore essential for companies to be able to produce these substances in full compliance with the natural features that are intrinsic in the ingredients used, with the aim of giving pleasure to end users.

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

In the market of Flavours and Colours for the food and chemical industry, I.C.F. & Welko S.p.A. has reached a high level of proven experience over

the years and for this reason has been chosen as a partner also by important international companies with production sites in various parts of the world.

Our technological knowledge of the sector enables us to offer our customers both small plants for the production of powders of various flavours or colours in small batches, and large plants for the production of large pro-

duction batches. All this is done in full compliance with international environmental and safety standards, and fully meeting the expectations of each individual customer.

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

[www.icf-welko.it](http://www.icf-welko.it)

**ICF:WELKO**  
FOOD

# GEA high pressure homogenization technology in Food & Beverage applications

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

## How homogenization enriches food products?

The benefit of high pressure homogenization is well known in dairy, food & beverage industries for subdividing particles or droplets present in fluids, and reduce them to the smallest possible size, down to nanometer range. Enhanced stability, shelf life, viscosity, color and taste are the essential characteristics that the emulsion gains through this process. Homogenization contribute in increasing digestibility and, as consequence, facilitating assimilation of the nutritional principles as well.

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

## What makes GEA your ideal partner?

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









and continuous improvements on production technologies allow the company to offer a complete range of homogenizers, from laboratory up to the industrial scale.

Thanks to a strategy of development of both established and potential applications, often based on cooperation with our customers' Research and Development Centers, GEA can offer highly specific and customized process solutions to always meet, ensure and repeat over time product quality excellence.

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

**Ariete Series. The state-of-the-art technology for power, reliability and flexibility.**

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

**Main advantages:**

- Easy to use
- Highest reliability on continuous production (24/7)

- Reduced operational costs (water, lubrication oil, energy)
- Low environmental impact
- High capacity at ultra-high pressure

**One Series.**

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

**Main advantages:**

- Ready-to-use
- Ideal for small-medium dairy & beverage industries
- High versatility and smart installation
- Long lasting core components
- Reduced maintenance cost
- Safe sanitary design

**Find the perfect homogenizer for your product**

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

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

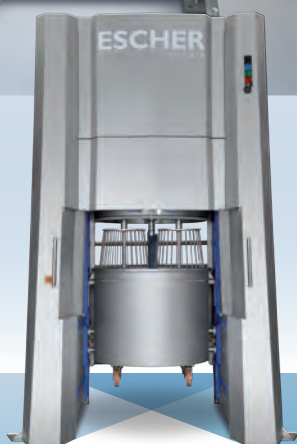
The quality and the reliability of GEA homogenizers are well known all around the world, find out all the information on website

[www.gea.com/homogenizer](http://www.gea.com/homogenizer)



# ESCHER

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# Equipment and lines for the integrated processing of **FRUIT** and **VEGETABLES**

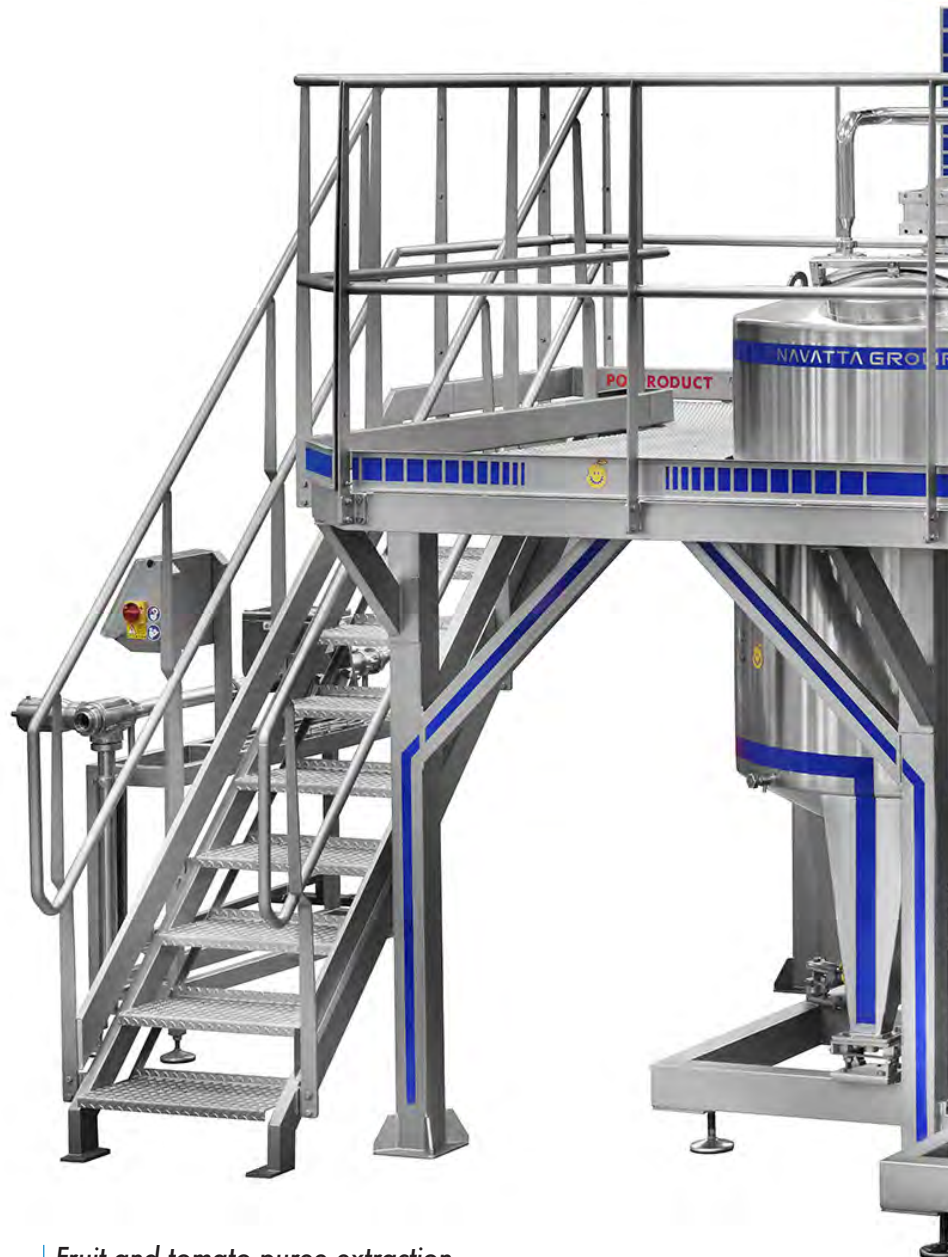
**T**he company Navatta, founded by Mr. Giuseppe Navatta in 1983, produces and installs fruit and vegetable processing lines and boasts references across the globe.

Navatta, the global supplier of integrated fruit & vegetables processing equipment and lines, providing well proven and innovative solutions for a full range of plants also thanks to the numerous companies' acquisitions over the years, such as Dall'Argine e Ghiretti in 2001, a 40-year-old company world famous for rotary can pasteurizers and tomato pulping lines; Mova, in 2010, with extensive experience in bins handling, bins and drums emptying, palletizers and de-palletizers, washing systems; Metro International, in 2012, leader in fruit and vegetables processing, boasting international patents for juice and puree extraction, concentration plants and thermal treatment; Ghizzoni Ettore, in 2012, specialized in special batch plants for ketchup, sauces and jams.

## MANUFACTURING RANGE

NAVATTA GROUP manufactures and commissions Processing Lines, Systems, Equipment for Fruit, Tomato, Vegetables for:

- peeled / diced / crushed tomatoes, tomato sauces and purees, tomato paste, all filled into any kind of package or in aseptic;
- diced, puree, juices (single strength or concentrated) from Mediterranean / tropical fruit, all filled into any kind of package or in aseptic;



*Fruit and tomato puree extraction system complete with juice recovery tanks*



*Navatta, the global supplier of integrated fruit&vegetables processing equipment and lines, providing well proven and innovative solutions for a full range of plants.*





*Single head aseptic filler Webzero for web small bags 3-5-10-20 liters automatic loading system - no operator needed. Semiautomatic filling of 220 bags in drum*

- Fruit crushing lines from IQF, frozen blocks and frozen drums
- high yield PATENTED fruit puree cold extraction, fruit purees / juices equalized in aseptic.
- Wide range of evaporators to produce tomato paste Mediterranean and tropical fruit concentrate.
- Aseptic sterilizers
- Aseptic fillers for spout bags/ spout-less Bag-in-Box 3 – 20 liters, Bag-in-Drum 220 liters, Bin-in-Box / IBCs 1.000 – 1.500 liters;
- "all-in-one" pasteurizer / cooler spirals
- formulated products productions (jam, ketchup, sauces, drinks) starting from components unloading to dosing, mixing, mechanical / thermal stabilizing, to filling into any kind of package or into aseptic;
- processing pilot plants;
- vegetable processing as receiving, rehydration, cooking, grilling

Navatta Group's headquarter and the two production units are located in Pilastro di Langhirano, Parma, with a total production area of 10,000 square meters. A new area of 10,000 square meters has recently been purchased and is ready for the third processing unit to be built.

**VISION:** Passion is the factor that drives us to higher targets, in terms of technology, products and services.

**MISSION:** To constantly increase Customers' satisfaction and fidelity. 🏛️

[www.navattagroup.com](http://www.navattagroup.com)



**NAVATTA GROUP**  
Food Processing S.r.l.

**ANUGA  
FOOD  
TEC**  
26-29 APRIL 2022  
COLOGNE  
VISIT US HALL 10.1  
STAND E050-F055

**PROPAK  
EAST AFRICA 2022**  
10 - 12 MAY 2022  
THE SARIT EXHIBITION CENTRE • NAIROBI • KENYA  
VISIT US  
STAND C21

# CANTINE ASETTICHE

MISCELAZIONE • STOCCAGGIO • TRASFERIMENTO • CIP



  
**DIZIOINOXA**  
IMPIANTI E SERBATOI PER L'INDUSTRIA

# OMIP is showcasing its New Cherry Pitting Machine at Anuga FoodTec

*New pitting machine for cherries and sour cherries*

**A** new cherry pitting machine/puncher, designated to all cherry processing companies worldwide, is able to offer the highest economic advantage by reducing: the number of skilled personnel necessary for processing and maintenance operations; the expenditure on spare parts.

We are talking about the Cherry Pitting machine Mod. KC-196, designed and manufactured by the Italian company OMIP. This machine is suitable for removing the pits in both sweet and sour cherries thanks to a set of punchers.

The movements of the conveyor belt as well as the heads for punching and support are actuated by the means of Brushless motors, controlled by a PLC which keeps them perfectly synchronised.

"This type of movement allows to operate the machine by making it carry out a double movement at a time, for a standard operation, or by permitting the belt to make one forward movement at a time, and hence destone and/or repit the same fruit. T

he latter is useful to reduce the percentage of pit residue in the fruit to its minimum", explains Francesco Pannullo, one of OMIP's corporate directors.

The machine is equipped with a touchscreen panel view, which permits to: vary the desired production speed by selecting first, second or

third speeds; vary the punching speed with a fast or slow downward stroke; vary the type of timing of the belt, if it is double (standard) or single (for repitting the fruit); manage the phase-synchronisation of all the movements; see the error messages, including both historical and current ones.

"We are negotiating sales with clients in Australia, Uzbekistan, Russia, France and Greece – adds sales manager Timothy Ahiagba – and we are showcasing our KC-196 cherry pitting machine at the Anuga FoodTec 2022 in Koln, from 26th to 29th April, in Hall 10.1 Stand A033"

Made in accordance with machines Regulations 89/392/CEE, the frame of the machine is built entirely using stainless steel, which renders the machine remarkably robust and highly resistant to rusting.

"The frame has been stabilised after welding and successively refined on numeric control machines.

All the components of the machine are interchangeable – concludes Pannullo – The parts having contact with the fruit are all made of food-grade materials (plastic, aluminium, and stainless steel)." 🏢

**[www.omip.net](http://www.omip.net)**







Avocado Pitter mod. KAV2



## “ RESEARCH INTO SUSTAINABLE PACKAGING: THOUSANDS OF WAYS TO REPLACE PLASTIC ”

Sustainability – as a corporate value, driven by consumer awareness and the need to preserve planetary resources – has become a topical trend for companies in all areas of business, engaged in researching innovative solutions. The food and beverage industry is no exception and has come up with a number of possible solutions aimed at reducing the use of plastic.



by Elisa Crotti

**S**ustainability as a business philosophy also embraces the world of packaging, where the great challenge lies in replacing plastics, whose characteristics and properties are difficult to match in other materials. The research laboratories of leading international companies are therefore presenting and perfecting innovative, if not ground-breaking solutions, which have been presented at Anuga FoodTec 2022 in Cologne.

Driven by growing market pressure and consumer awareness, the food and beverage industry is orienting its packaging choices towards renewable raw materials and recyclable materials, leading them to replace traditional packaging with more contemporary solutions. Many producers are attentively evaluating the possibility to replace plastic, in favour of renewable fibres or alternative materials. It goes without saying that across-the-board solutions do not exist; quite the contrary, each proposal needs to be adapted according to the philosophy “a container for every content”. In this case, more than ever before, personalization is the keyword.

Wherever possible, composite films or plastic trays are being replaced by mono film or cardboard. This requires new generation modular machines, based on intelligent robotics and automation, to process both traditional and new sustainable packaging.



Some solutions are already available on the market and there are companies which, showing a high degree of flexibility, have been able to offer avant-garde solutions, for instance in the ambit of sparkling beverages and beer, where films and plastic rings have been replaced by cardboard alternatives, and these are processed without causing delays in productivity or poorer performances. Then there are the flowpackers which process both conventional composite films, with hot-cold sealing, and recyclable or paper-based films.

Here the key challenges consist in maintaining the efficiency levels of the machines, since it is certainly more complex to work with paper-based film: paper is more susceptible to tearing and wrinkling; it is stiffer and requires special attention during processing to prevent stoppages. Furthermore, it is abrasive and may therefore damage the mechanical parts of the machine in the long term. For these reasons, the latest generation flowpackers must be designed to handle such criticalities, perhaps by contemplating more resistant or protected surfaces.

Another aspect of great significance regards the contact with foodstuffs: the more complex and perishable the food, the more difficult it is to find valid alternatives to plastic, which must be researched in the ambit of bio-active materials. In this case, one strategy consists in covering the paper utilized with safe waxes and natural proteins, and with organic-based additives. Some interesting results have emerged: on one hand, the proteins act as a barrier against oxygen, and the waxes against vapour, which prevents such foods as fruit from losing too much moisture. On the other hand, organic-based additives perform an antioxidant and antimicrobial action, which improves the preservation and shelf life of the food product. None of which prevents the paper from being collected and recycled after use.

Since sustainability is based on the 3Rs, Reduce, Reutilize and Recycle, another critical aspect is that of reducing consumption. The various solutions are aimed at reducing the quantity of plastic, whenever it is not possible to identify a substitute. Also in this respect, much has been accomplished: thanks to structural innovation, we have succeeded in using from 15 to 40% less plastic for the packaging of tomatoes, berry fruits and stone fruits. After use, these containers may be collected for recycling, destined to become raw materials for further utilizations.

The principle governing this rising trend is that of the circular economy: the circular economy is a generic term used to define an economy that is designed to be regenerative. It is an economic system planned in such a way as to reutilize materials in subsequent production cycles, to minimize waste. To all effects and purposes, this is one of the keys to sustainability.



# FUTURE OF FOOD PRESERVATION

## Already present and available

**P**IGO srl is a family-run company, founded in 1991, and based on continuous research and development of new technologies, and improvement of the most cutting-edge technologies existing in the food processing.

PIGO srl is specialized in freezing that for decades was the best way to store the food, and still is. With deep freezing, up to 100% of all the natural characteristics and nutritional values of the fresh product are preserved, but

the frozen product requires the cold chain.

The future of the conservation is in the possibility to conserve the product in the easiest way possible. That is why the future is now.

The perfect complicity of the high technology, simplicity for the user and economical advantage are all concentrated in EFD Easy Freeze Dryer. Taking the frozen product, drying it with the sublimation process (freeze

drying), we obtain a product with all the characteristics of the fresh product, but completely without water, with a "shelf life" of many years, which does not require any particular conditions for the storage.

Today it is possible to freeze-dry not only individual components, but also whole meals. All we had the pleasure of seeing and trying complete meals, also for celiacs, who do not lose their taste or natural characteristics, thanks to one of our customers





*“The only way to predict the future is to have power to shape the future.” (E.H.)*



who with decades of experience in the medical-pharmaceutical field uses these methods for its product.

Foods processed in this way have always been used by astronauts but today these products are the most innovative and most popular in all sectors of the food industry worldwide.

**Today, PIGO srl is one of the very few companies in the world that offers all three main methods of preserving food: freezing, drying, and freeze drying.**

Managing to improve existing technologies, obtaining the final product of clearly superior quality.

Following guideline “our raw material is gray matter”, PIGO srl is focused on research, development and continuous improvement, thanks to engagement of entire team and collaborators.

PIGO srl long term experience in fruit and vegetables processing brought also to develop the high tech freeze-dryer that allows to save delicate aromas while drying the frozen product under vacuum, producing a premium quality product. The sensorial properties of the finished product are absolutely superimposable to those of the fresh product. After the process, product will have retained its form, volume and original structure, as well as all its physical, chemical and biological properties.

As the product is porous, it can be re-dissolved by the simple addition of a proper solvent (water).

As mentioned PIGO srl is specialized also in freezing, and for the perfect IQF freezing process we recommend **EASY Freeze IQF Freezer**, PIGO srl avantgarde in freezing technology.

Fully controlled fluidisation method keeps the product constantly suspended above the belt in a cushion of air. The result is the immediate crust freezing and efficient core freezing of individual pieces, regardless of type, variety or condition of product.

**Maximized freezing efficiency** is guaranteed for each unique





product, whether the product is heavy, light, soft, sticky or fragile, thanks to Variable speed control of all fans and all other build-in drives, allowing on-the-fly optimization of air flow conditions.

PIGO srl is also specialized in other drying and freezing technologies. Besides **Easy Freeze Dryer EFD**, main machines for drying are **Adiabatic Multistage Belt Dryer PG135** and Tunnel Dryer PG128. For freezing, besides the **IQF Freezers EASY Freeze**, PIGO also produces **Spiral Freezers EASY Freeze SPYRO**.

PIGO srl experience also in complete stone fruit processing lines is perfectly proven and incorporated in the **High Capacity Pitting machine - PG 103**.

**The key advantages of PIGO Technology and competitive technologies:**

**FASTER PROCESS WITH LESS ENERGY** – Our method reduces process time up to 25% while consuming less energy.

**LOW TEMPERATURE OPERATION** – Uniquely designed features allow the low temperature operation cycles which are crucially important for preserving the natural integrity of the product.


**NO PRODUCT WEIGHT LOSS / ZERO DEHYDRATION** - Uniquely designed features allow air flow which are crucially important for preserving the natural integrity of your product, almost immediate crust freezing and preventing product weight loss.

**HIGHER YIELD** and faster investment return.

**LISTERIA AND PATHOGEN FREE OPERATION** - Today's "must" for food safety, provided by open design of all machinery parts by unique PIGO design.

**OPERATOR FRIENDLY** - All steps in the freezing process are designed to facilitate simple, fast and efficient operation and maintenance, **with NO DOWNTIME**.

For more information we invite you to visit our website **www.pigo.it** or simply send an e-mail to **info@pigo.it**.

Recalling philosophy "give the best to people who expect the best. (D.Z.)" PIGO srl invite you to give us a try. 

**P i G O**®



# “TECHNOLOGY AND ROBOTICS FROM PREVENTION TO HARVESTING”

Fruit and vegetable farming looks to the future

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by Elisa Crotti



**T**echnology as an opportunity to look ahead, in a market that witnessed a decline in consumption in 2021 and relies on a supply chain that has still not recovered completely, in which the interests of fresh product exporters and logistics service providers have never been so distant.

In this context, attention to innovation plays a key role in creating new market opportunities, by

optimizing every step in the supply chain: from the land to the table, from production to consumption.

In this perspective with the aim of reconciling innovation with the environmental/economic sustainability of fruit and vegetable production, the spotlight is on certain technologies that could give a new impetus to the sector.



## agricultural machinery today

First and foremost, the use of sensors in agriculture, a practice which has evolved rapidly in recent years: from the use of the first weather stations- essential in the prevention of critical climate issues- , to soil probes, not to mention sensors and biosensors, which are able to directly detect the conditions of a single plant and ensure prompt action in case of need. A series of proposals focused on prevention, also considering the increasingly frequent difficulties associated with climatic conditions.

While it is true that these tools will play an increasingly central role in the near future, especially in view of the possibility to reduce the use of chemical substances in farming, it is equally true that they will require significant investments and an ever increasing awareness on the part of entrepreneurs. In some ways, they will constitute the dividing line between the old and new way of perceiving this business.

While on the subject of technology, it must also be said that the use of drones is increasingly widespread. Their application enhances the sensitivity of monitoring tools from the scale of the plot to that of the single plant, and they even arrive where satellites fail to provide a sufficiently accurate view. Besides, drones can facilitate crop inspection thanks to virtual or augmented reality,

especially in the ambit of phytosanitary defense. This is another way to directly access the needs of the plant (in some cases it is even possible to monitor the condition of the fruit) and make the necessary adjustments and integrations for an optimal harvest.

If we look even further into the future, we can imagine a scenario characterized by the preponderant use of robots. The market is already starting to offer interesting robotic applications for weeding, sowing and tillage. Technology is also pushing, albeit at a prototype level, towards the harvesting of those crops which had so far been excluded from the automation of mechanical processes, thereby opening the world of fresh produce to mechanized harvesting, a prerogative of industrial crops until very recently.

Since the extended use of these technologies will necessarily go hand in hand with the energy issue (how and at what price can we guarantee power supplies to equipment, robots in particular, given the high cost of energy and the rising cost of fuels?), it is necessary to consider possible solutions. A very important one is represented by a growing receptiveness towards the electrification of the agricultural sector, particularly with regard to solar energy. This is an opportunity that needs to be explored by a forward-looking industry.





# HYGIENIC LINE: hygienic wash-down motors in stainless steel or in aluminum with silver treatment

**O**ur stainless steel motors present a completely smooth surface, capable of respecting and guaranteeing the highest hygienic standards demanded by the market.

The motors are manufactured with tubular frame, totally enclosed and without ventilation. The nameplate data is laser engraved directly onto the end shield. The exterior parts of the motor are in stainless steel, no plastic components are used.

The surface of these motors is extremely easy to clean, and they withstand the most common aggressive cleaning agents. Stainless steel motors are available with cable gland or with the rear terminal box, where it is possible to position a terminal block, a brake or a position transducer.

These motors excellently resist corrosion and represent a reliable and long-lasting solution in those areas where the hygiene is a basic requirement.

The IP degree of stainless-steel motors is IP69K and the efficiency class is IE4 Premium. Thanks to an accurate electrical design, the internal heating and the surface temperature are limited.

These motors are particularly suitable to be used with an inverter, because they are made with superior class insulations.

As part of our Hygienic Line, we also have a new motor with silver treatment, patented by Carpanelli.



**Carpanelli**  
Motori elettrici

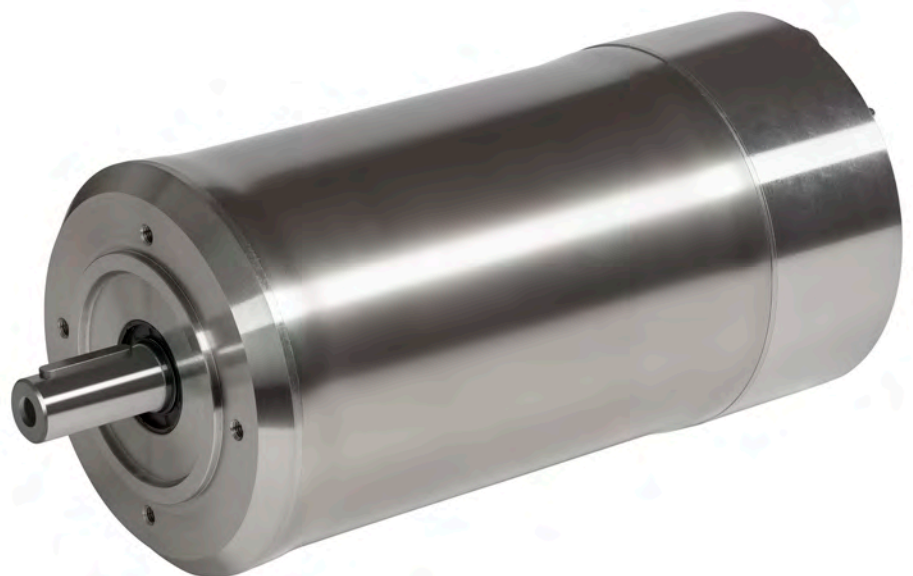
This silver treatment created for aluminum alloy motors, gives the motors antibacterial properties and as such offers a valid alternative to stainless steel motors. These motors are perfect for those industries, such as food and pharmaceutical, where a clean and aseptic environment is needed.

This treatment gives the motors interesting characteristics, such as resistance to corrosive agents, better electrical and thermal conductivity,

anti-mould and germicide properties, high resistance to abrasive wear, lower weight, capability of resisting high voltages and higher motor efficiency.


The advantages of using these motors instead of stainless steel motors are several.

Silver's antibacterial properties allow the motors to be used in closed contact with food, preventing microbial contamination.





nents, a reduced chance of wear and corrosion of internal components and motors are not dangerous for operatives that may come into contact with their surface.

Also the electrical efficiency level of the motor takes advantage from the lower temperature. 

**[www.carpanelli.net](http://www.carpanelli.net)**

The materials used in the manufacture of these motors are non-toxic and non-absorbent. While stainless steel contains Nickel, antibacterial motors don't. The high thermal conductivity of this aluminum treated with silver, permits the motor to dissipate 10 times more heat than stainless steel.

Working at lower temperatures guarantees a longer life of the compo-



# “ FOCUS ON THE RECOVERY OF THE FRUIT AND VEGETABLE MARKET ”

A phase of contrasts, in anticipation of agriculture 4.0



by Elisa Crotti



Photo by Pina Messina on Unsplash

Once again, we are addressing the post-pandemic in an attempt to understand the trend of the fruit and vegetable market which, certainly more than any other, has been affected by the restrictions. After more than two years of uncertainty, now that business activities are picking up, the situation is one of strong contrasts.

On the one hand there is the great potential of the industry, with consumers increasingly aware of the

quality and social/environmental sustainability of what they eat, doubtlessly conditioned by health concerns.

Hence the trend in favour of healthy foods - with fruit and vegetables at the forefront - and a growing preference for online retail purchases. In brief, at first glance the sector presents unquestionable growth opportunities, as demonstrated by the continuous, albeit slight, increase in per capita expenditure over the last year.

On the same optimistic note, today, the whole system is at the center of a process of radical modernization, also dictated by the need to produce more fruit and vegetables (estimated at +350 million tons by 2050 when the planet will be populated by nearly 10 billion people). This inevitably entails the immediate need to reduce the environmental impact of both production and trade.

If we observe the market from another point of view, however, the outlook is less rosy.

First of all, the market appears to be characterized by supply chains that are increasingly under strain: the effects of the pandemic have modified and continue to modify the transportation of goods and the movement of people, creating difficulties even among those who work in the industry.

To further complicate the picture, in the past year there have been critical climate-related issues, such as frosts in southern Europe, which decimated stone fruit harvests in the affected areas, and heavy rainfall in Western Europe, which caused significant losses, especially with regard to vegetables, whose inevitable price increases are amply covered in the media.

Added to which is the cost of fuels, with its infinite repercussions on the market, and the increase in the cost of energy, a cause of concern especially for producers in north-western Europe engaged in protected agriculture, to the point that some farming operations relating to the 2022 season have been delayed.

Finally, as regards water resources, which are also closely monitored due to climate change, new technologies are proving to be essential in supporting an agriculture 4.0 capable of resilience.

The past two years have accustomed us to a new digital world, which represents the challenge as well as the opportunity of the near future.

At this time of great change, the fruit and vegetable market cannot afford to take a back seat: the best possible scenario will be that of companies which are able to adapt and seize opportunities.



Photo by Pina Messina on Unsplash



# DE SANTIS: labelling & packaging machinery

**D**E SANTIS is specialized in round metal can handling machinery.

We have a history of more than 80 years, and we have a very good reputation all over the world, covering all continents.

Our company is a family-owned company, from the beginning, up to nowadays.

We can offer a comprehensive range of machine including:

## Can labelling machines

These machines with rolling horizontal

system, are suitable to label cylindrical metal cans, both traditional cans, 3 pieces, as well as stackable cans. The machines are adjustable for different can sizes.

Models:

- **LB serial:** can label cans from small sizes up to big sizes.
- **HSL:** high speed with NON-STOP system.

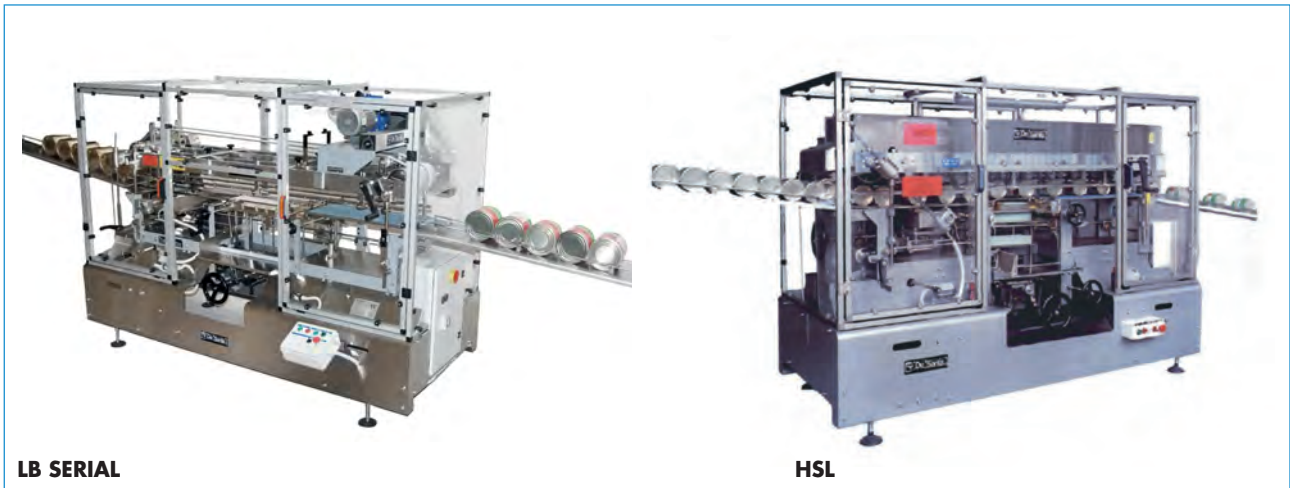
## Semi-automatic case packers and case gluer

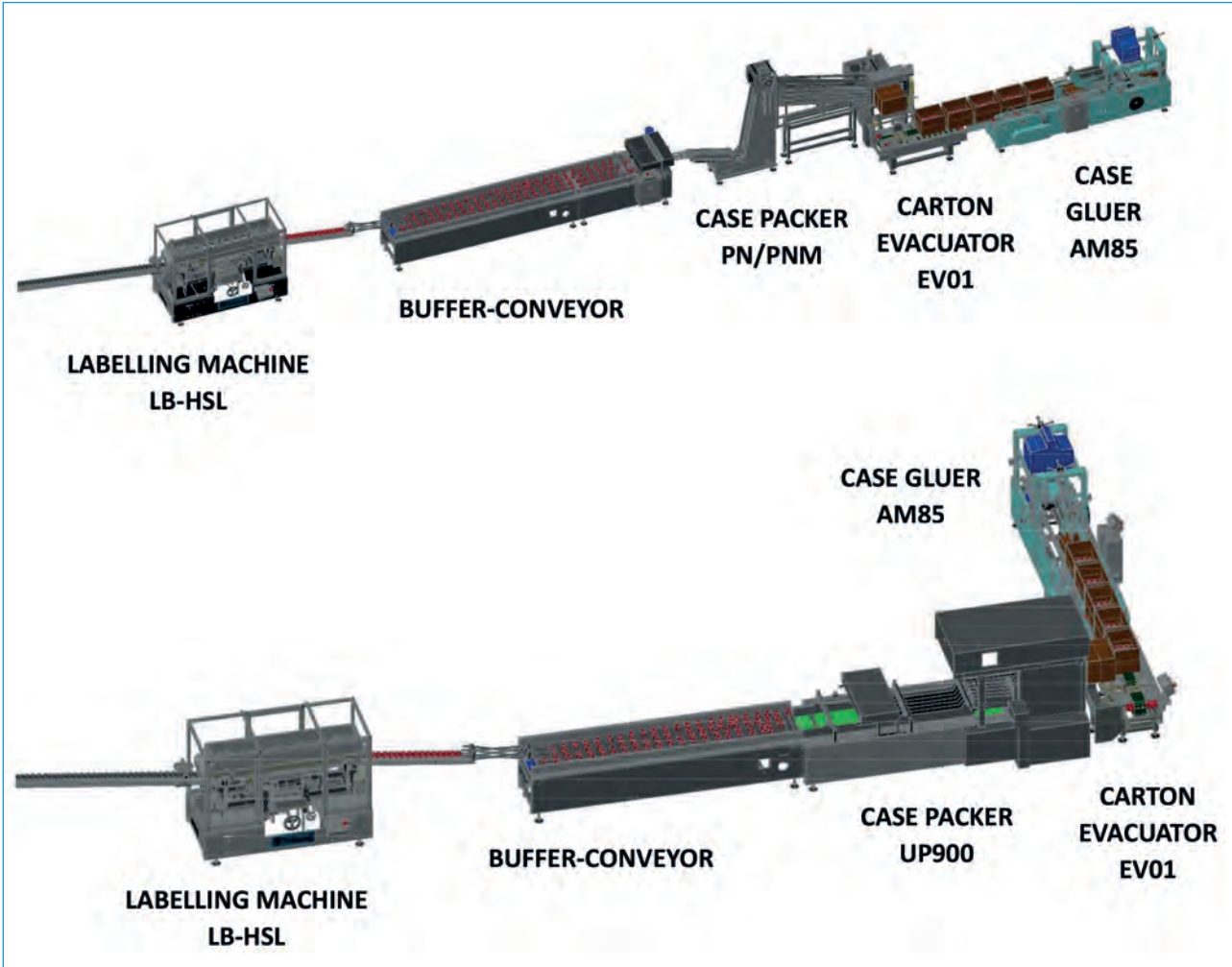
The DE SANTIS CASE PACKERS in

different model, with mechanical system, can fill "American" cartons with round metal cans, according to a fixed layer in single or multiple layers.

Models:

- **UP900:** Non shock system, adjustable for different can sizes.
- **PN -PNM:** Rolling system. These machines work with fixed can diameter adjustable heights only, according to structural possibilities.
- **EV01:** Carton evacuator (extra).
- **AM85:** CASE GLUER for "American" cartons.





**Complete lines**

According to our customers requirements we can project and realize special COMPLETE LINES. Some samples you can see above.

**Our history**

Our history starts at the beginning of the 20th Century when Giovanni De Santis starts his workshop as a forger. During the 30ies /40ies he is approached by some of the local canning companies who require special machinery for can handling.

In 1938 De Santis develops the first automatic high speed labelling machine to be built in Italy and it is a great success ! Since that time the company has continued the policy of being one of the most specialized manufacturers of can handling.



**LEADER**



## IN MANUFACTURING HIGH SPEED LABELLING MACHINES

DE SANTIS SRL, leader in manufacturing HIGH SPEED CAN LABELLING MACHINES, is one of the oldest exhibitors at CIBUSTEC PARMA!

The Company exhibited in 1942 and now it is ready to show new improvements.

In 1938 the first DE SANTIS Automatic Labelling Machine, called "LA RIVOLUZIONARIA", appeared on the market, it was suitable for all round metal cans. The system designed was the rolling one, with the use of cold glue for first and second operation.

In the 70s, the company realised the first HIGH SPEED LABELLING MACHINE, with NON-STOP SYSTEM. (HSL 8 model). This model had a great success all around Italy and all around the world (in more than 70 countries!).

This model is still now TOP SELLER, thanks to the simple functioning and high performance (over 500 cpm) The Company has been working for many years to a new model, with a new gluing application system. Now it's READY!

### The First Labelling Machine "De Santis" with one type of glue - Model HSL16

#### ADVANTAGES ARE:

- HIGHER PERFORMANCE  
(up to 700-800 cpm)
- CLEANLINESS
- LESS GLUE CONSUMPTION
- OPTIMISING COSTS 🏠

[www.de-santis.biz](http://www.de-santis.biz)





## “ GLOBAL TECHNOLOGICAL TRENDS IN THE FOOD AND BEVERAGE INDUSTRY ”

According to the DLG, there are 5 trends shaping today's food and beverage industry: sustainability, digitalization, innovative packaging, new products, and climate change awareness. They will soon be influencing our choices.



**A**t Anuga FoodTec 2022, the trade fair event dedicated to technological innovations for the food industry, the DLG partner (Deutsche Landwirtschafts-Gesellschaft – German Agricultural Society) presented the 5 most important trends destined to impact the food and beverage market in the near future. Intelligent solutions and a high degree of flexibility are the keywords enabling us to interpret these themes, which have evolved as a response to market solicitation, collective requirements, and the need for business to optimize resources.

This is a necessary change of perspective in a business of ever-increasing complexity with a need for ongoing research. Companies seek optimal solutions for reducing costs and resource waste, while consumers expect variety, novelties, and innovative packaging, all of which must comply with sustainability criteria.



by Elisa Crotti

The impact of these trends will be felt on both raw materials and, above all, on the technologies we utilize.

### **Sustainability, what else?**

This is a topic that interests the entire industrial sector, and it is also an important consideration for end-consumers. About one third of the food produced in the world never gets as far as the table. This amount is equivalent

# PND: fruit processing machines

**A**mong the **most innovative companies** in the field of **construction and marketing of machines for fruit processing**, PND srl is continuing to follow its path of growth and specialisation, further consolidating its **leadership in international markets**, providing the

**ideal solution** to its customers who are engaged in processing fruit by **anticipating and supporting market trend, continuously designing and constructing new machinery**.

The company's success has not distracted PND from its own objectives:

to design machines capable of efficiently fulfilling the required task and **continually improving processes**.

PND is proud of its **strong identity**. This philosophy allows the company to only focus on the **singular task of designing machines that will com-**



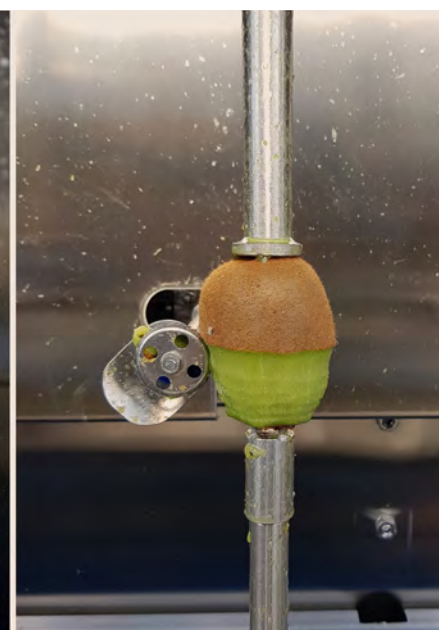
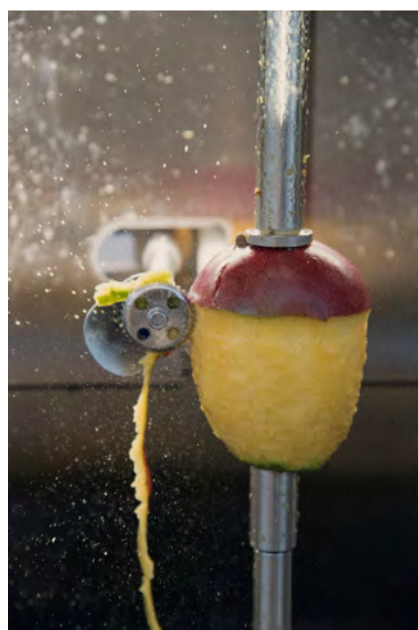
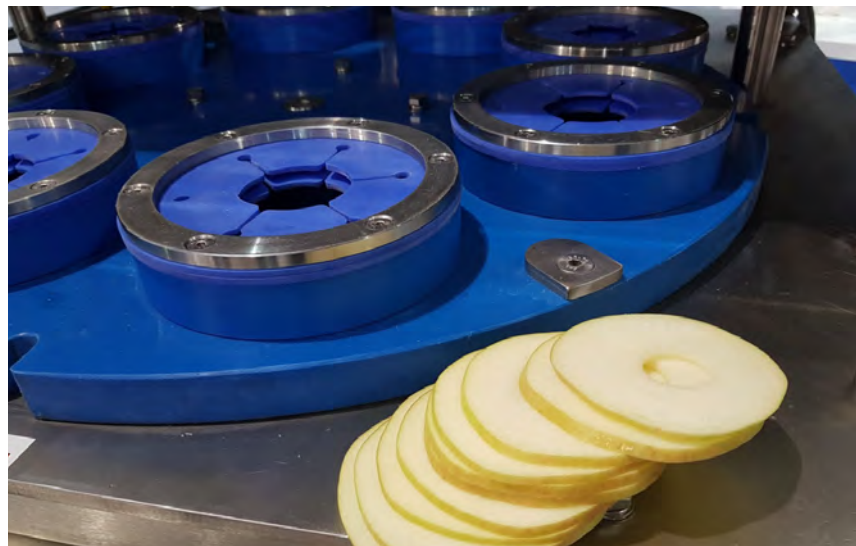


*This philosophy allows the company to only focus on the singular task of designing machines that will complement our customers goals.*

**plement our customers goals. By focusing on the customer, we avoid the pitfalls of frenetic diversification.** The only recognition to which PND aspires is the satisfaction of its **customers**, who **choose PND machines based on** the substance of the proposed solutions.

By selecting PND as a business partner, the customer chooses a made-to-measure technology. PND's ability to renovate its image and the new communication strategy **make it** among the most modern companies in the sector. The **experience** that we have gained in the last **22 years of ac-**

**tivity has allowed PND** to make **continuous innovation on machinery design and creating an** extensive catalogue of machinery. This includes advanced solutions for the processing of **pears, apples, kiwis, oranges, grapefruits, lemons, pineapples, lemons, mangoes, strawberries and**





**peaches, with all possible variations** in order to meet the needs of companies processing fresh products in Fruit-Fresh-Cut, the **canning industry** (fruit in syrup), and **dried** and **frozen** sectors. Among our company's top products are **Automatic and manual peeling, coring and cutting machines** as well as treatment and prewash tanks for many varieties of fruits.

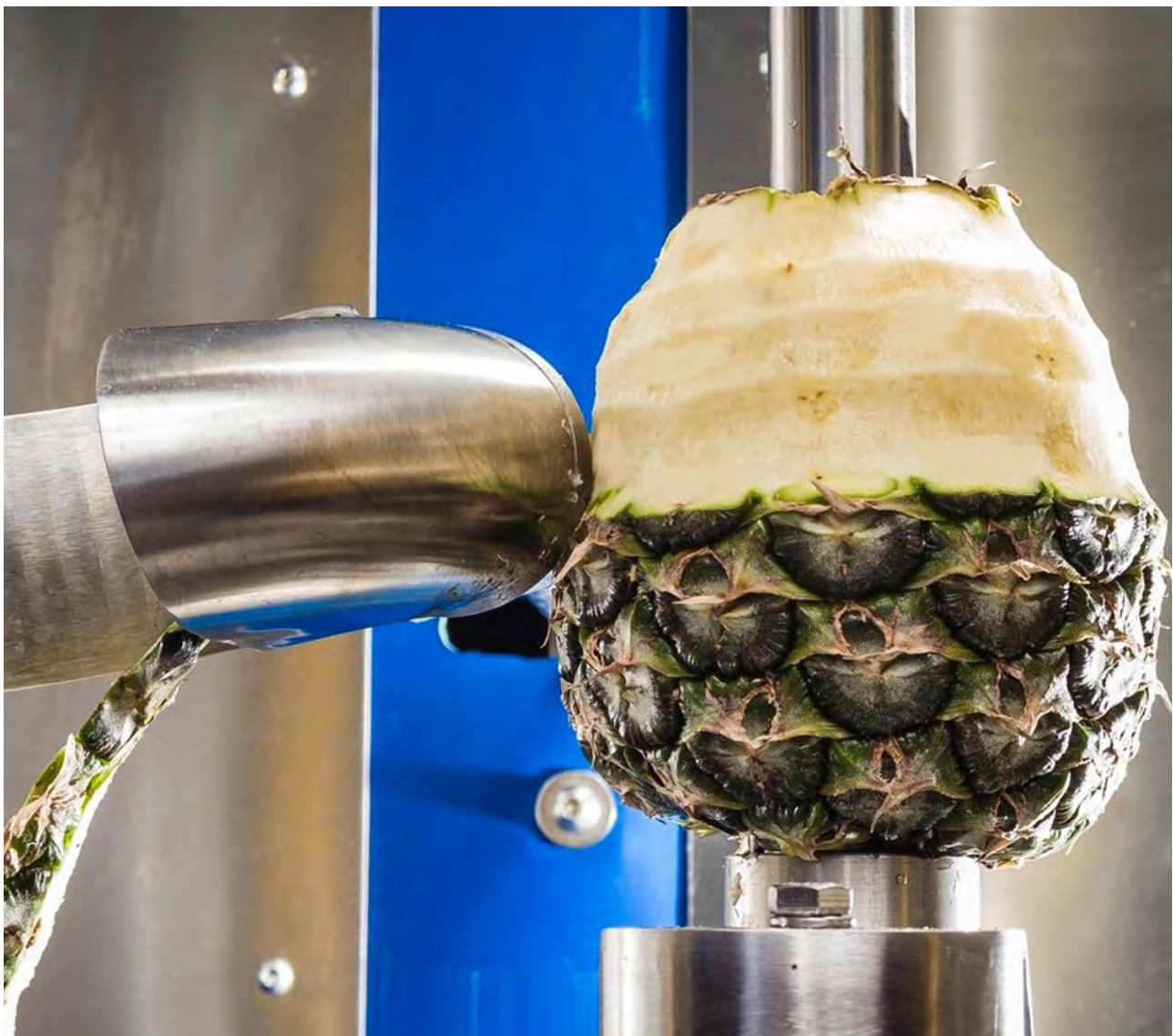
In the **United States, the Fresh Cut sector** is a fast growing and important sector of the food industry. But in other countries like Turkey, the main operations are focused on dehydrated or dried products. This trend is also proving a **great success in Europe** where **dried fruit** is

racking up triple-digit figures in the percentage growth of **dried fruit snacks**.

The food industry has always had a **need for innovation, with different** requirements and uniqueness depending on the different target markets. By choosing one of the **18 semi-automatic, manual or automatic machines** manufactured by PND, customers re choosing a standard machine that can be tailored to your needs. All of PND's machines are designed to **facilitate inspection, maintenance and cleaning tasks**, and possible **replacement** of damaged items, thanks to the **easy access** to the corresponding parts.

Those wishing to learn more about the wide range of solutions offered by PND srl can visit the website. Visitors can also see our full calendar of **international trade events**. The **upcoming events** at which we will be participating include the following: **Anuga Food Tec** 26-29 April, Cologne; **Macfrut** 4-6 May, Rimini (ITALY); **Expo Pack Mexico** 14-16 June, Mexico City (MEXICO). 

[www.pndsrl.it](http://www.pndsrl.it)



to 1.3 billion tons, a huge quantity that causes considerable economic damage. The responsibility for this is widespread: some food gets damaged in the production and transport phases, and some fails to be used by the end-consumer. The most critical areas regard meat, cereals, and milk, for which only smart solutions can make the difference.

The traceability, responsibility, and transparency of the production chain, as well as choices in favour of sustainable packaging are some of the key aspects, for which there is a strong market demand. For this reason, it has become of essential importance to adopt computerized tracking systems throughout all phases of the production chain: from raw materials to the consumer. Just think, traceability could be applied to the product source, batch number, processing date, shelf life and delivery, as well as cold chain compliance.

The environmental commitment of companies also goes in this direction. The aim is not merely to comply with the laws and directives for the protection of people, nature, and the climate, but also to research and identify interesting benefits, such as the treatment of wastewater and other types of waste, technologies for controlling pollutants and exhaust gas purification. In the food industry, this translates into the identification of strategies and technologies aimed at using resources in "intelligent cycles", resulting in a greater economic advantage.

### **Industry 4.0 and digital transformation**

The food and beverage industry is characterized by a profound awareness of costs and by mass production, in which choices are oriented by consumers and their expectations, as in the case of innovative packaging or wide varieties of flavours.

In this respect, digital technologies can come into play at any point in the production chain to ensure an optimization of processes and greater efficiency, with important effects on product quality, sustainability, and work organization flexibility.

The resources come in different forms: IoT (Internet of Things), 3D printers, ERP systems, virtual reality, IT security, artificial intelligence, and Big Data.

### **Packaging, a new product styling**

Dosing and packaging processes require a high level of automation and, at the same time, a keen attention to the functional safety of machinery and systems. Consumers, on the other hand, demand solutions that are sustainable, personalized, and smart.

It is up to producers to find the right balance between safety, automation and economic viability. In this respect, digital transformation offers great opportunities,

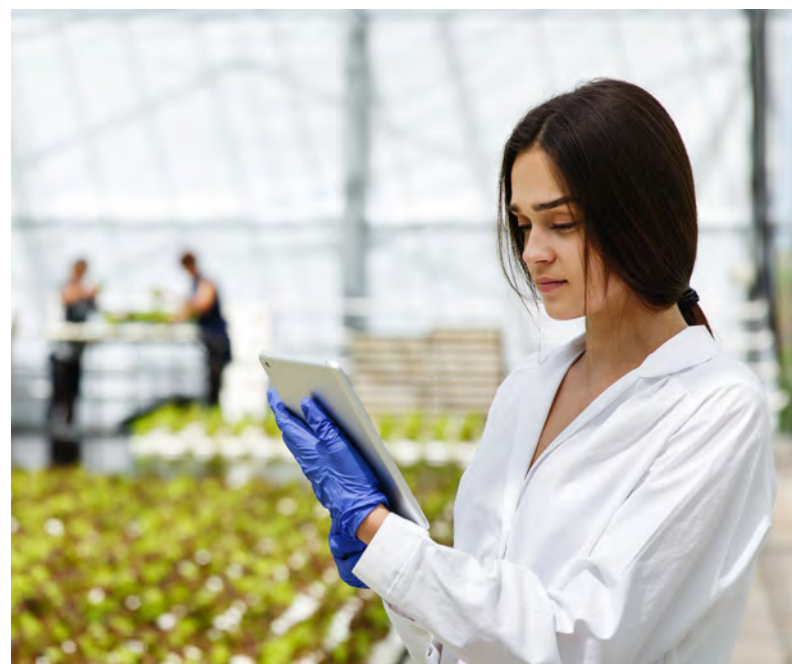
especially in the ambit of dosing and packaging, where it is possible to optimize cycle times, minimize errors and maximize product safety.

### **New products with new technologies**

The constantly growing world population presents new challenges for the provision of food resources, especially proteins. New production methods are therefore emerging, such as vertical agriculture, a farming method based on the practice of growing crops in vertically stacked layers, wherever land is totally unavailable, the production of artificial meat, or aquafarming, that is, the production process that consists in the farming of aquatic organisms by means of techniques designed to increase their production beyond the natural capacity of the environment. Moreover, there is a growing demand for plant proteins, while recycled or upcycled foods are another trending topic, produced from by-products to counter food waste. Some examples? Cacao pulp juice obtained from the residue of chocolate making, or mayonnaise produced from the cooking water of chickpeas, otherwise disposed of by hummus producers.

### **Climate neutrality**

Climate change is a central topic on social and political agendas. Global warming and its consequences (rising sea levels, flooding, extreme weather conditions, drought) demand specifically targeted measures. The most salient of these consists in the reduction of emissions by means of investments in renewable energy sources, enhanced energy efficiency and low-carbon technologies. Aspects that constantly engage our companies, in their strive for best practices.



# Universal blow molding machine-filler connection module to ELIMINATE AIR-CONVEYOR PROBLEMS

In a PET bottling line, the air conveyors connecting the machines are often at the origin of a number of problems, including the impossibility of working with new types of bottles and the risk of con-

tamination due to the movement of bottles by air blowing.

The engineering department of BBM Service has designed and developed the first universal module that allows

the elimination of air conveyors in between the main machines of the PET line. The module is called UNICOM because it unifies and combines a blow molding and filling machine of any manufacturer, even different



## *The innovative module reduces the consumption of water and energy, the risk of bottle contamination, and the distortion of bottles*

ones. Designed to modernize and optimize the PET bottling line, the module consists of a bench aimed at transporting bottles between the two machines in a short distance, reducing the consumption of water and

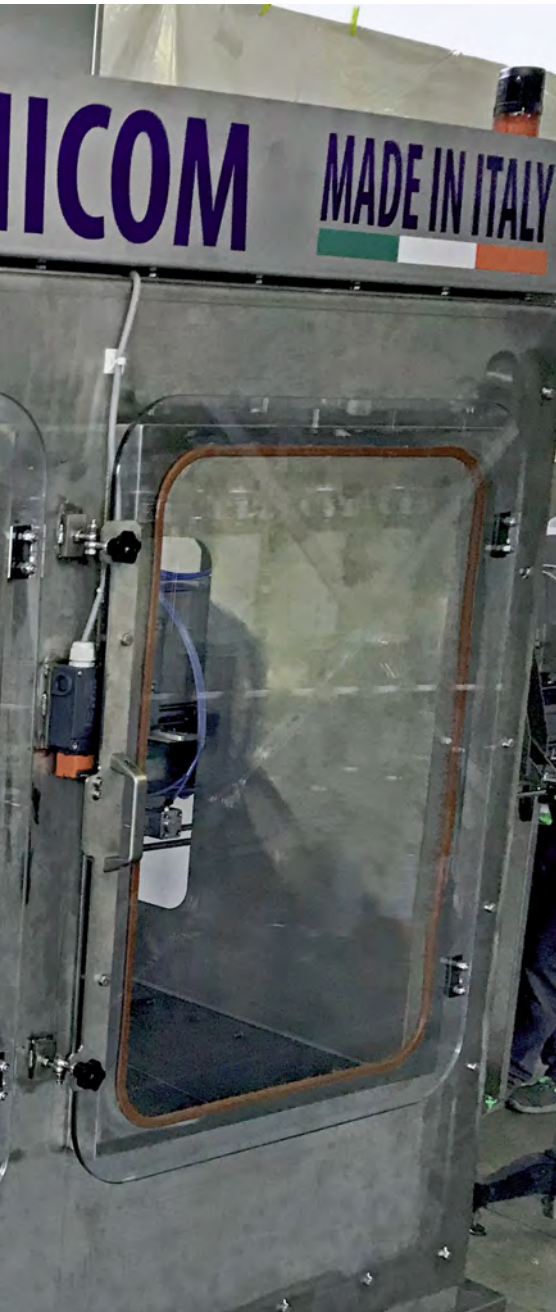
energy, the risks of bottle contamination, and the problems of crushing and distortion of the bottles.

In recent years, new market and production needs have led to the increasingly common choice of lower-weight bottles, in order to reduce the raw material used and the related costs. Because they are lighter, these green bottles are more prone to deformation in transit; the same applies to recycled plastic bottles, which are particularly prone to binding and rubbing. Thanks to a star-shaped transfer system, UNICOM is the best solution available to overcome these problems, and guarantee the protection of the wrappers.

The innovative module, designed for a nominal production of up to

25,000 bottles per hour, can be offered with a series of cutting-edge options: a stainless steel structure, which is easier to wash and more resistant; a fan cabin, to keep the internal air clean from external particles; an automatic adjustment system with a stepper motor, to adapt the module to the different bottle formats, and a chiller to speed up the cooling of the bottles coming out of the blower.

The combiner is just one of the solutions that BBM's technical department can offer its customers. Having an in-house engineering department allows BBM to follow the customer at every stage and create tailor-made solutions that meet their goals. These skills, combined with flexibility and prompt assistance, have enabled us to gain the loyalty of top players in the beverage sector.





Giampiero Latassa, CEO of Fabriella Group, a company of excellence in mineral water bottling, talks about his experience with UNICOM by BBM Service. The machine was installed by BBM in the Parma plant:

*"The module is fantastic and helps a lot in production, space management, and hygiene; the bottles, which previously ran on-air conveyors and were exposed to dust, now pass directly into the filler. Another advantage is the ease of format change operations; BBM's intervention has brought old machines to top performance levels.*

*BBM provided a fast, turnkey service; we had a great time with the engineering department and the installation was done directly by BBM technicians. They managed every single step. It's a product I would recommend to everyone."* 🏠

[www.bbmpackaging.com](http://www.bbmpackaging.com)

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**BBM**



# GLI SPECIALISTI DEL PACKING *THE PACKING SPECIALISTS*

Dal 1994 studiamo e personalizziamo le nostre macchine per rispondere a ogni richiesta. **Anche la tua!**

*Since 1994, we design and customize our machines to respond to every request. **Even yours!***



**BONDANI S.r.l.**

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Tel. +39.0521.621100 - Fax +39.0521.621101  
[info@bondani.it](mailto:info@bondani.it) - [bondani.it](http://bondani.it)

# BONDANI SRL: Continuous wrap-around case packer



**B**ondani's activity began in 1994 when Bruno Bondani decided to carry on the activity started with Pnelmec first and then with Parmasei, giving birth to Bondani srl.

The year 2019 has rewarded the 25 years of strong commitment that have made Bondani one of the leading companies in the packaging sector, thanks to its know-how and experience gained over the years, together with its owners' strong entrepreneurial intuition and the trust shown by its client, which has made it possible to gradually but constantly grow in terms of range of products, turnover and staff.



The presence in the company of the second generation, in the figure of his son Alessio, has given strong impetus to the realisation of new projects for faster machines with a greater focus on the efficiency and environmental impact. An evolution that passes through technological renewals and the ongoing improvement of previous projects.

Today Bondani internally develops all the different processes that lead to the


construction of a machine or a plant: from the designing project to the final installation, always providing professional advice to its clients and an effective after-sales service.

To celebrate its 25th anniversary, the company will present the new WA30 Continuous Wrap Around case packer at the next edition of Cibus Tec in Parma: a packing machine able to satisfy different packaging solutions and to process different containers, from bricks to bottles.



With a structure entirely made of stainless steel and other stainless materials, it has small dimensions and is equipped with a curvilinear multi-way entry with divider block.

This configuration makes the operator's work easier, ensuring ease of access to the machine both during its functioning and during ordinary and extraordinary maintenance.

The WA30 Continuous Wrap Around case packer is equipped with a touch screen panel for easy and immediate control of all parameters. Its main features are: fast format changeover, increased energy efficiency and reduced noise levels. In fact, this machine is provided with direct drives where the mechanical synchronisms are obtained by connecting the drives (drive unit with gearmotor) to a multi-axis inverter (electronic controller). Self-motorized groups in electric axes are the following: feeding conveyor belt; upwards die-cut feeding chain conveyor; main chain conveyor for carton forming and advancing for complete closing operation; upwards chain conveyor to close the upper part of the carton. 



[www.bondani.it](http://www.bondani.it)

# Automatic cutting and distribution system of Oxigen Scavenger sachets: the ETIPACK project for the packaging tortillas

One of the largest companies globally specializing in the production, distribution and sale of tortillas, tacos, corn chips and cornmeal needed to remove the level of oxygen in the packaging's to maintain of his products safety and extend shelf life.

## **The solution: The automatic bandolier feeder Whizzy Cut & Feed for cutting and distribution of sachets**

Etipack has designed a solution capable of to insert inside a flow pack, containing 2, 5 or 10 tortillas, one or two sachets of Oxigen Scavenger, an oxygen absorbing sachet very suitable for the food industry. A machine with a motorised module able to cut and feed on a continuous belt the sachets obtained from a reel.

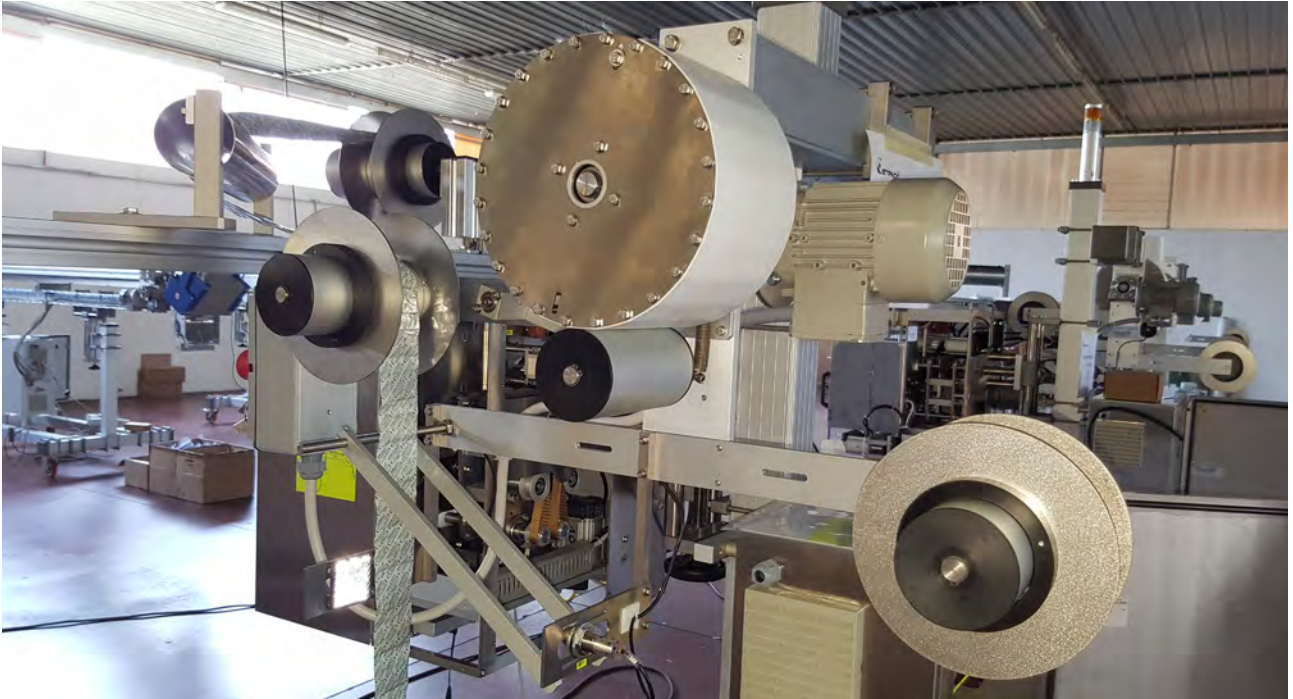
## **The peculiarity of the machine:**

is that it cuts and distributes the entire reel in compliance with the tight life expectancy of the Oxigen Scavenger. Once the Oxigen Scavenger reel is opened, the life time before the oxygen is absorbed around it is about three hours. The special feature of the machine is that it is able to cut and distribute all the sachets of the reel before this one becomes unusable.

With a motorized terminal, the machine can distribute and cut 150 pieces per minute. It is designed to distribute sachets on a continuous line by placing them horizontally on the packaging line. The machine is equipped with protection guards that cover the moving mechanical parts and with plexiglass








doors with safety microswitch. Allows to modify the cycle parameters according to the specific production needs and the type of product.

The motorized cutting system on electric axis allows to reach speeds up to 150 pcs/ min, performing the cut in a short stop of the towing group, creating a serrated cut in order not to create waste even on the most critical products. The electric axis is in phase with

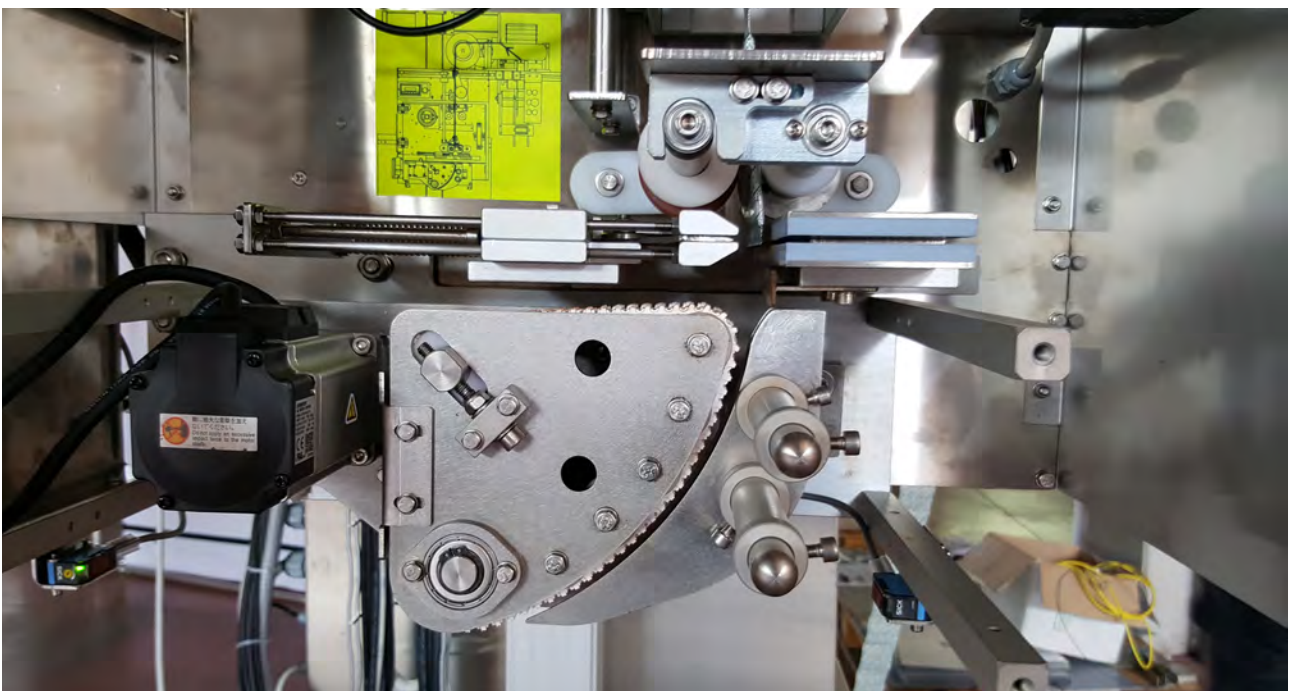
the motor that carries out the towing, in order to have the cut sachet perfectly matched perfectly match with the underlying product.

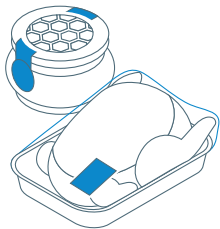
The motorized unwinder module, in aid of the Whizzy Cut & Feed, manages the product from the reel, making a single strip of product to the haul-off unit. The separate motorization unwinds the reel by unloading its weight through a secondary motor.

The reel is vacuum-packed and the moment the sachet is inserted into the flowpack, it consumes the air inside. It is a valid alternative to the insertion of nitrogen as a preservative

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

**[www.etipack.it](http://www.etipack.it)**





# etipack FOOD

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**CODING,**  
**PACKAGING**  
**DESIGNED**  
FOR THE **FOOD** INDUSTRY.



System 4/2



System 1



Whizzy Cut & Feed


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 labelling, coding, caring

# What is the latest, innovative and cost-effective trend in the primary, secondary and tertiary packaging for Food sector in Italy?

**A**ccording to market research, ready to eat food in portable packaging with tasty and fresh product characteristics are meeting the expectation of today's consumers demand. In current fast paced lifestyle, less time is available to prepare healthy snack at home for office or school mid-day break. The other important aspect, packaging wise, is that consumer demand environment friendly packages, easy to dispose in different waste collection program. Considering these starting points we can certainly confirm that

Cama, Clevertex and Tosa has jointly developed, produced and successfully commissioned near Rome, for an important multinational company in Food Consumer Sector, the production line which is producing and handling this innovative packages.

Let's bring you through the production process to explain the combined innovation which leads to tremendous cost reduction with the environment friendly approach. The flexible pouches, with integrated nozzle, are made of monolayer material, which is a fan-

tastic innovation since it provides the consumer the possibility to easily and correctly dispose it in one waste bin without requiring to separate material for two different bins, because in the past, the packages were made of different materials assembled in a multi-layer form. As we are producing and handling monolayer material it gives saving in the material cost itself, as for its production process, less production passages are required.

Moving on to the processing and filling part, which has the biggest sav-





# CASE HISTORY

ing, the products are filled and sealed in aseptic condition.

This is another great innovation as it cut all the associated costs that usually are linked to the product pasteurization that is performed in autoclaves requiring automation, also with treatment time utilizing important energy quantity and with reduced space requirement in the production hall. Summarizing, while excluding the pasteurization step, the capex costs are reduced to at least 40% as the tray loading/unloading and autoclave are not required, at

the same time, looking at the total cost of ownership the estimated reduction is about 50%.

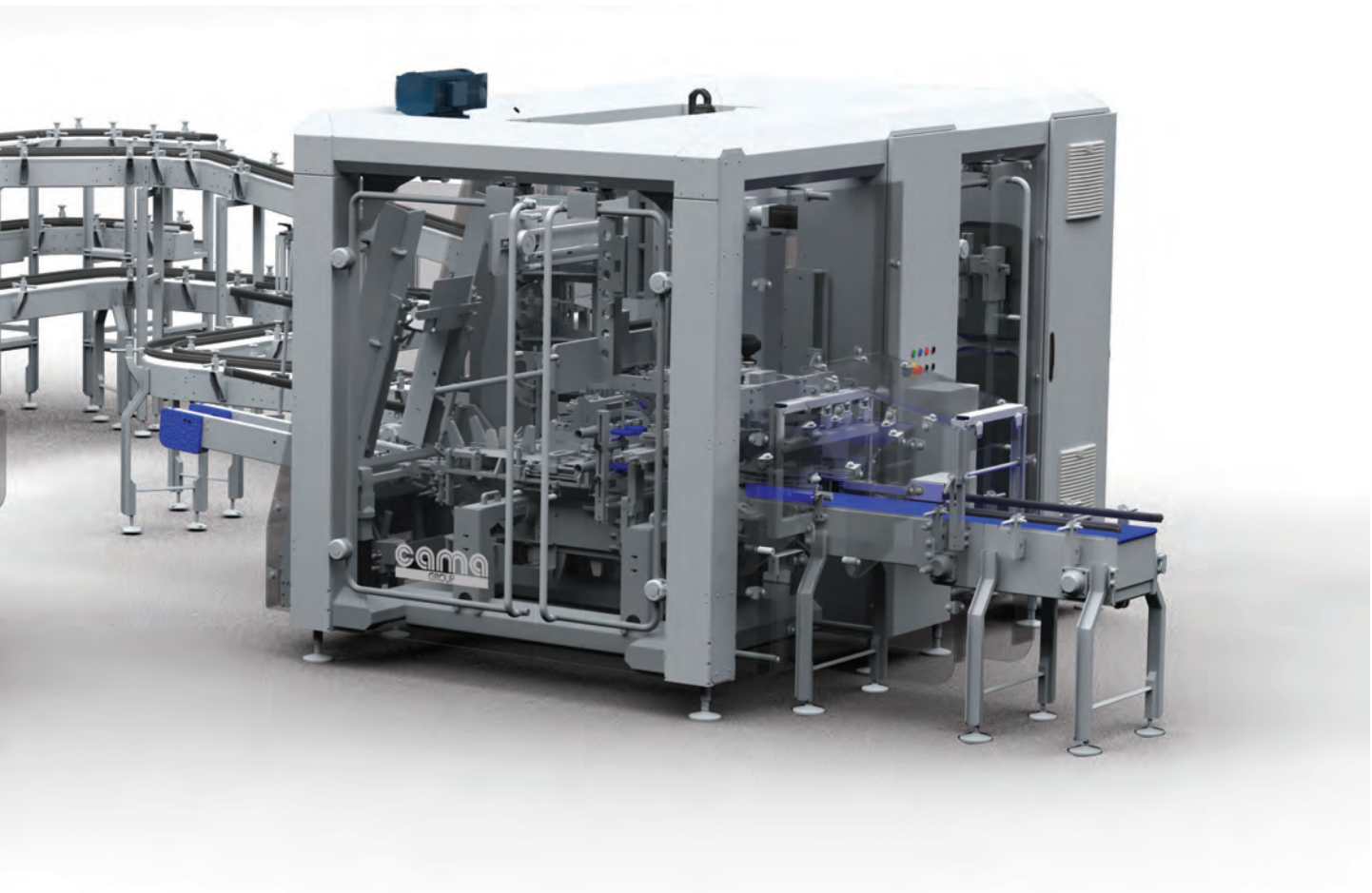
Once the primary package is filled and seal, Cama is placing the pouches in the packaging flow and their



“

*The consumer demand environment friendly packages, easy to dispose in different waste collection program*

”



“ *combined innovation which leads to tremendous cost reduction with the environment-friendly approach* ”

journey to the shelves begins. Cama's system begins at the filler's exit with the orderer, who determines the correct flow of the products and their orientation during the transport path.

The first operation is to transfer the Pouch to the SRP case: the products doypacks with caps (stand-up pouches ranging in weight from 85 to 180 g) are weighed, labeled, checked with an X-ray system for the presence of

contaminants, and then sorted with the divider, which orders the products to the packaging lines for the creation of both types of format. The Shelf Ready Packaging boxes (four pouches) are grouped and placed in corrugated cardboard wraparound boxes made from flat blanks (closed with hot glue). SRP tertiary packaging is the second operation handled by Cama FW wrap around model very versatile, allowing to perform multiple tasks with

a single machine. Cama FW model can create crates with dimensions up to a quarter of a pallet (400 X 300 mm) for products that require reduced packaging due to the demands of the large-scale retail trade.

Now the secondary package is carried into Clevertech system where there is the second weight check for the secondary packaging to assure that it is completely filled with all settled pouches. The cases are labelled



# CASE HISTORY

with a print and apply system to have the full traceability along the production line.

The reject, positioned prior to the downstream of the line, is rejecting the packages with incorrect weight or non-readable labels. Further, the secondary packages are taken into a spiral elevator and transported them directly to the warehouse. This design, yielded another big cost cutting in the total cost of ownership of the production line as originally the customer preferred to have the palletization near the primary packaging, but during the evaluation in project design development phase, with a win – win philosophy, it was decided to have an higher capex investment in conveyor which eliminates the use of forklift to move loaded pallet from production to warehouse.

At the end of line, performed in the high level palletizer Clevertch AC

520, the product is entering in a positive layer pattern forming with Lineflex manipulator which gives the possibilities to handle very small packages from 4 pouches per case up to collecting carton with 48-64 pouches. The other flexibility from Clevertch, beside the product range handling, is in the production speed that can be doubled once another Lineflex in layer pattern forming is added to the existing one, in other words, adding a reduced Capex the line can be taken to double its performance.

The Clevertch system is complete tie sheet and slip sheet application and it integrate print and apply label to pallet in a seamless condition, which is connected to the print and apply to carton for a perfect integration and tracking to customer ERP and WMS.

The pallet stretch wrapper Tosa 090 integrated in the Clevertch supply, is

installed with a system for vertical corner application, complete with 2 fixed corner posts storage units and n.1 automatic applicator useful for increasing the overall capacity or for using up to 2 different formats of corner posts, automatically selected according to the type of pallet to be stretch wrapped. The machine guarantees outstanding performances and maximum stability for entry level productions: it is designed for low maintenance, ground level motor positioning for easy inspection and maintenance, for maximum flexibility and versatility of components to suit any layout configuration.

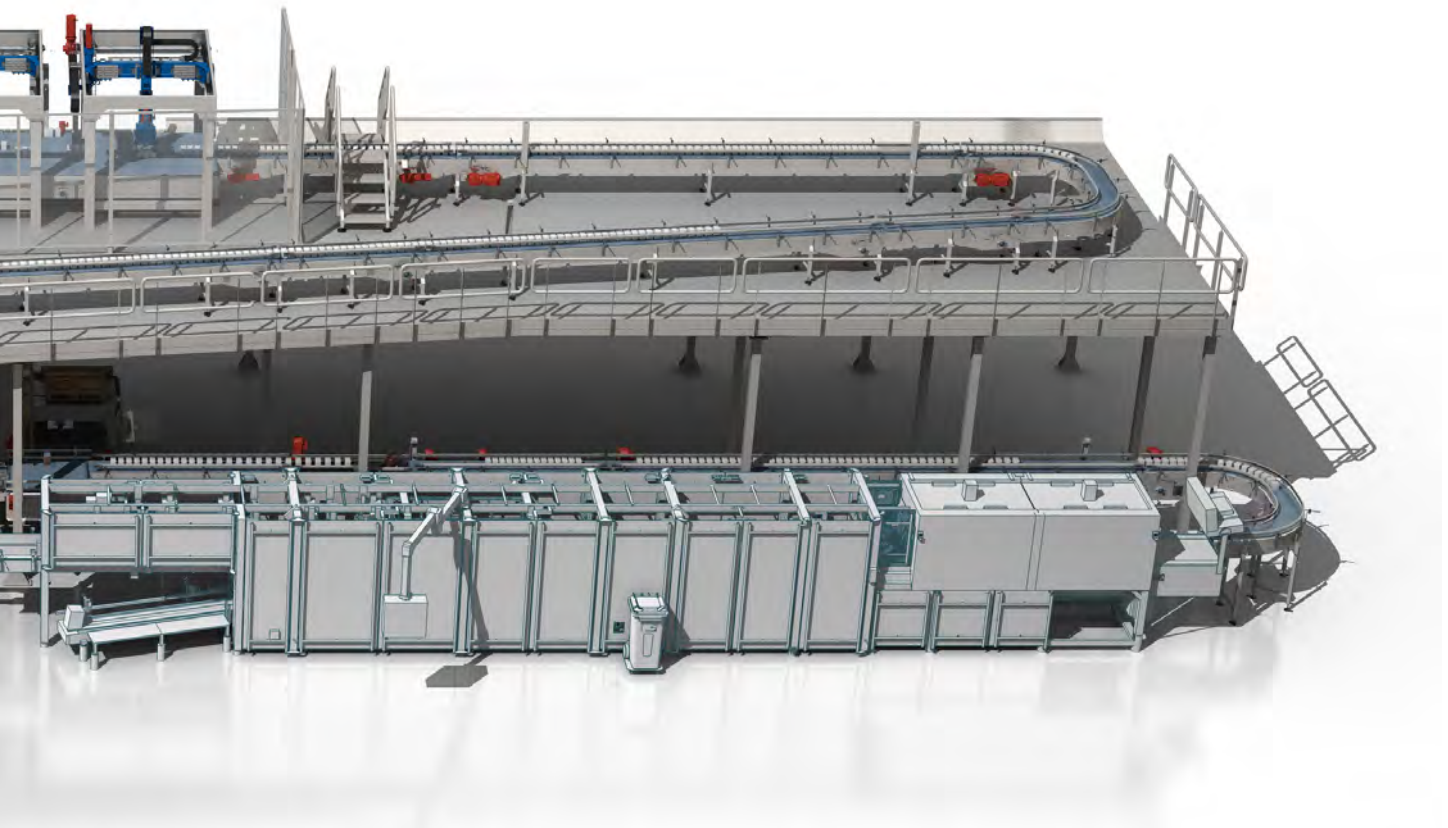
The philosophy currently applied on this machine provides that the design of each device will guarantee minimum maintenance, optimize costs, time saving, increase sustainability, safety and cleanliness. 🏢

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**CLEVERTECH**  
HANDLING YOUR SUCCESS



**LACMI**  
FOOD & BEVERAGE PLANTS



# PERSONALIZED SLEEVES and self-adhesive labels

**O**rograf S.r.l. has been in the **SELF-ADHESIVE LABEL and SLEEVE** business for 50 years and we are a well-established firm, both in Italy and internationally, hold ISO 9001:2015 certificate. We offer a high-quality and highly flexible all-round service, **from graphic design through to final printing.**

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

We have a wide range of printing systems (letterpress, screen, HD flexo, digital, offset, hot relief, dry relief, perforation, glitter effect and on-foil pantone overprinting), and **we can print on all types of material,**

**adhesive and non-adhesive** (laid, embossed, metallized paper, synthetic films, twin and booklet labels, reels and sheets), for any kind of end product. But what really distinguishes Orograf S.r.l. is that **we can combine multiple printing systems on the same production line** and therefore offer our customers unique and customized final products tailored to their specific needs.

## FOOD Labels

Regardless of whether they are applied on packaging or directly on products and fresh foods, labels for foodstuffs must be produced respecting a series of precautions dictated by the particular products on which they are to be applied. Above all they

must be produced in compliance with **consumer health protection laws.** OROGRAF uses top-quality certified and guaranteed materials that meet these legal requirements and guarantee consumer protection. In addition to informing the consumer about the product, food labels can be used as warranty seals or open-and-close labels; they can also carry advertising, recipes, warnings, information about competitions, discounts, and so on.

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





# Self-adhesive Labels and Sleeves

We have **all the printing technologies** known on the market.



## Innovation and research

We have a wide range of printing systems (letterpress, screen, HD flexo, digital, offset, hot relief, dry relief, perforation, glitter effect and on-foil pantone overprinting), and we can print on all types of material, adhesive and non-adhesive (laid, embossed, metallized paper, synthetic films, twin and booklet labels, reels and sheets), for any kind of end product.




**MULTIPAGE, TWIN LABEL and PEEL-OFF**

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

**Multipage labels**, as their name suggests, have a number of pages and they come in different sizes and formats: they can take the form of folded leaflets; detachable or with a transparent resealable cover; or booklets (bound like a book).

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

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

[www.oroGRAF.it](http://www.oroGRAF.it)

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

Orograf offre una vasta gamma di materiali plastificati, sia bianchi che trasparenti, oltre a rifiniture standard come la laminazione e vernici UV protettive, stampe con lamina a caldo e goffrature a rilievo.

Our sleeves (produced in PET, PVC or PLA) can be printed in **multiple colours, including metallized ones**.

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

**SLEEVES**

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





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# New needs lead to new design for SLEEVER TECHNOLOGY

*Revised machine design, higher performance and smaller footprint address industry's most pressing needs, while delivering contemporary performance and integration capabilities to wider markets*

**A two-year development program for a packaging solution with an outstanding 30-year pedigree has resulted in a new range of sleever machines from leading global packaging technology company Cama Group.**

The three new machines in the range offer better speed, simpler integration, a smaller footprint and significantly improved flexibility – all of which are coupled to a servo-based infrastructure and a digital architecture that will deliver seamless Industry 4.0 integration.

“Sleevers machines have been part of our product offering for the last 30 years,” explains Alessandro Rocca, Group Sales Director at Cama. “They have always offered impressive speed and performance, but we knew we needed to develop them further to make them more suitable for modern connected plant operations.

“The market for this machine technology is growing,” Rocca explains. “We have always enjoyed successes in the dairy industry, but we are starting to see a real pull from other verticals, such as pet food and ready meals – both of which would benefit from this newer technology.”

There are multiple facets to the re-development of the machines. First is a new framework, based around the company's class leading Break-through Generation (BTG) approach.

This comprises a modular, scalable design that offers easy entry and

access, optimised cable runs and hygienic features, all of which house contemporary automation solutions – including advanced rotary and linear servo technology and robotics – to deliver the all-important flexibility and adaptability required by modern packaging operations.





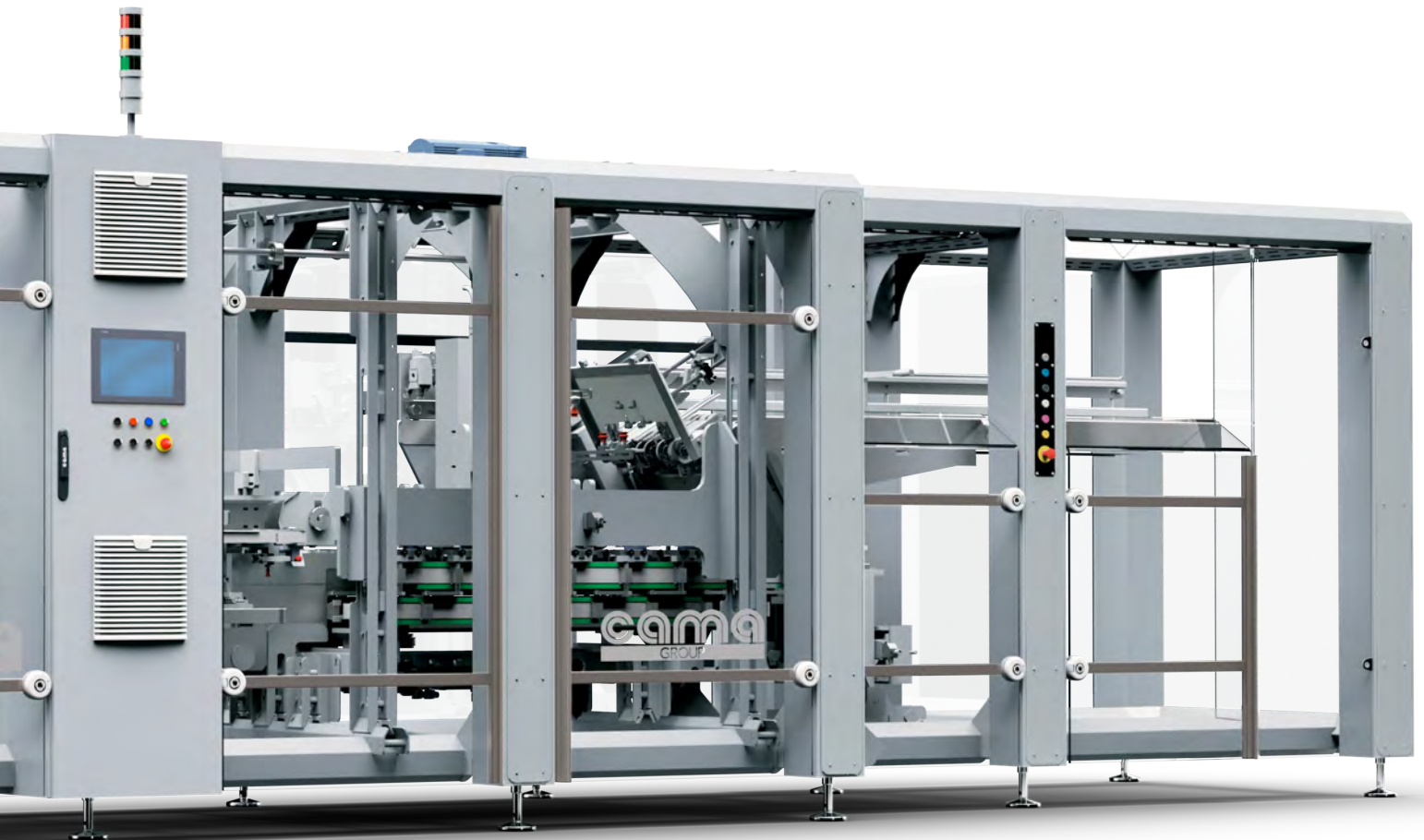


"We have also redeveloped the primary internal elements," Rocca adds, "such as the rotary feeder, which is not only faster, but comprises fewer parts, which will result in greater up-

time and far easier maintenance. We have also simplified the infeed starwheel and clamping system for the same reasons." A new phasing device has also been deployed,

which phases one or two-layer configurations accurately.

This double-pitch layout will give users the flexibility to more easily adapt



the machine depending on the packaging format required, and this is coupled to a new stacking device at the infeed for the creation of double layers.

The new designs also cater for packaging variety. "One of the important enhancements is the ability to deploy a corrugated cardboard overwrap for larger product arrays," Rocca explains. "Sometimes compact cardboard is simply not up to the job, so we offer the possibility of stronger packaging with a stronger closure."

The starwheel, the phasing device, the rotary feeder and the stacking device are all smaller than the technology they replace, which has resulted in a machine that is overall smaller/shorter – an essential design cue, especially for plants within limited or premium real estate.

"We also like to make the machines easier to operate," Rocca enthuses. "Not only does the new design benefit from our simpler clamp-based format changeover – with single- to double-pitch conversions taking less than 20 minutes – but we have also lowered the blank magazine, making it far easier to load."

Tight integration of Cama's in-house-developed robots allows users to create multi-flavour configura-

tion, insert gadgets or leaflets and formulate multiple stacks. "In a standard application we may see the same cup design, but in different layer counts," Rocca adds. "However, for different product arrays – that could be multi flavour or require the insertion of a sachet, spoon or leaflet – robotics is certainly the way forwards, as the immense flexibility offered by our robots removes the need for large-scale format changes.

"We can also integrate case-packing," Rocca adds. "Most of the time, the products go into trays, which is typical for dairy, and we have developed a case packer that is 100% integrated onto the sleeving machine, even removing the need for conveyors or other phasing units."

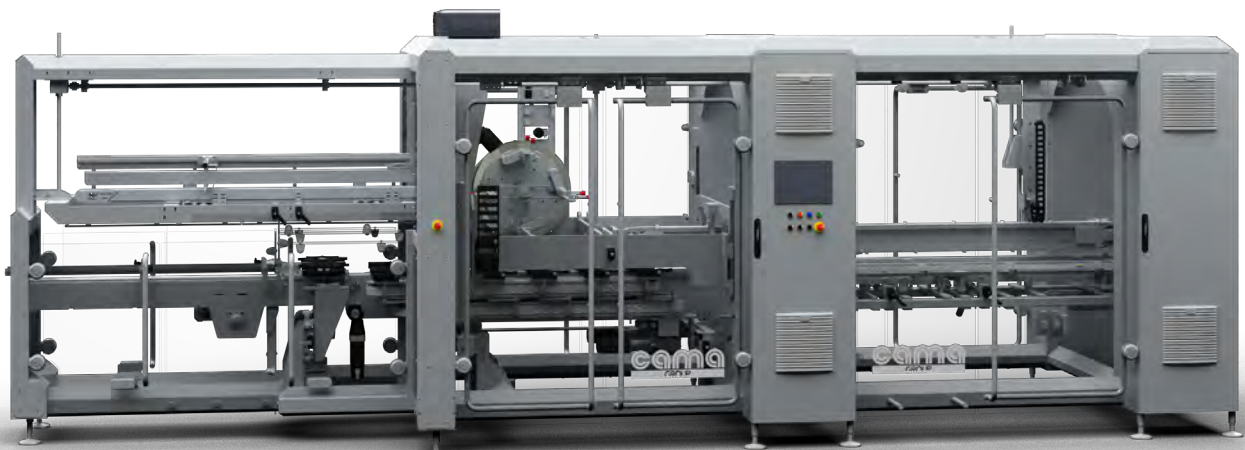
Available in three variants depending on the complexity and requirements of the application, the new MP series – like other new variants in Ca-

ma's extensive packaging technology range – will set the standard for the industry. Already in action at a leading global dairy company, the machines have proven their pedigree.

"We really do feel that we can now offer the complete package to all of our customers in all the industries we serve," Rocca concludes. "With full Industry 4.0 compatibility, seamless robotic integration, multi-architecture control solutions and the services of our highly experienced packaging design team, we have customers returning time and again.

And with extensive AR and VR capabilities – including completely immersive customer design reviews and flythroughs before a contract has even been signed – it's not just our machine performance that makes us the first point of contact." 🏠

[www.camagroup.com](http://www.camagroup.com)



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FuturaPack

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## High-tech solutions for packaging and end-of-line

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The Group, born from the strategic union of Gampack with FuturaPack, two historical companies of the Emilian Packaging Valley, offers a wide range of services for companies operating in the food & beverage industry, dairy, cosmetic and pharmaceutical, starting from the development of the idea to the supply of turn-key solutions.

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# BABY FOOD BOOM!

*FuturaPack, a Gampack Group Company, creates an innovative robotic packaging line for a Global Key Account American multinational, world leader in baby food.*

**T**he **baby food market** has continued to expand and grow even in times of pandemic. Neither the effect of prolonged lockdowns nor the continuous decline in birth-rate have dampened the demand for this increasingly technological and specialized sector, where brand reputation is closely linked to a sense of responsibility towards the target audience.

**FuturaPack**, a **Gampack Group Company**, based in **Piacenza** in the heart of the Emilian

packaging valley, has specialized in **end-of-line and robotic high-tech secondary packaging solutions in the food and beverage** sector for many years.

Thanks to network synergy and simultaneous development in product innovation and an eco-sustainable packaging policy, FuturaPack has been able to counterbalance the crisis period by capitalizing on its core assets and utilizing the flexibility of its machines in order to respond to today's very demanding market.

**FuturaPack** is already internationally renowned for its high-performance end-of-line systems, with many successful installations at production sites of major brands and co packers in a large variety of sectors, including food, dairy, beverage, pharmaceutical, cosmetics, home, and personal care around the world.



**FuturaPack** has had considerable success in the **United States baby food market** since its debut several years ago, delivering complete robotic lines for packaging cups containing fruit puree for children) Furthermore, the company's business in this specific market segment concerning packaging technologies for baby food, has expanded, and has led to the design of even more sophisticated solutions in terms of engineering and design, thank to the latest generation robots manipulating doypack.

R&D in baby food technology have led to an important collaboration with an international company in the food and beverage market. The synergy between the companies has resulted in the development of many successful projects with high customer satisfaction through professional project management and an increasing operational interest at Customer sites.

In relation to this, a first robotic line for packaging baby food was installed at an important American interna-

tional company in 2019. Thanks to the success of this installation, the Customer confirmed his confidence and commissioned a second line, which will be delivered in the coming months. The robotic system designed and engineered by FuturaPack offers high flexibility, while ensuring a high degree of efficiency.

Let's have a closer look about how this end-of-line system works. Doypacks, loaded manually on a conveyor belt arrive randomly arranged





in 4 rows at 180 pieces/min. Perfect alignment and accurate orientation of the products are not needed since they arrive from the customer's production line and from manual loading. This avoids the need for a complicated orientation system and difficult regulations, which can often cause stumbling blocks. This process simplification, with the aim of eliminating complicated systems of directing and grouping products, **is the ideal technical solution for the Customer**

Products leaving the production/filling line moist, are dried by an air flow and a simple vision system identifies their position, "communicating" it to the collection robots. Due to the constant flow rate of the products, four high-speed Delta robots are mounted on the machine structure.

The cardboard boxes are formed starting from flat blanks handled three at a time by three axes manipulator, controlled and inserted into an inclined pocket transport. This technique allows the robots to store the product

horizontally into the cardboard box and during the transfer, taking advantage of the maximum handling speed. The filling is done from the upper side of the box, whose flaps are open until the format is completed.

Thanks to this efficient filling operation process, the maximum capacity of the secondary packaging is ensured. Once the box filling is completed, the flaps are closed, the lid is pulled down and glued; the cardboard box returns to a horizontal position, where it is weighed and labelled.

FuturaPack packaging machine can be equipped with an option of a static balance inside its frame to eject

any incorrectly formed carton boxes and to only deliver the correct, controlled packages.

Thanks to the extensive knowledge gained during years of experience handling primary products (doypacks, envelopes, flowpacks...), FuturaPack has achieved several successes in the development and supply of packaging solutions at production sites of Various leading worldwide brands. Futurapack has delivered during the years reliable, automated, and sustainable solutions, customized according to specific production needs. 🏢

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# Wrapping up quality with TAILORED PACKAGING SOLUTIONS

**D**olcezze 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 Dolcez-

ze 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 bo-



asts 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,



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



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general system pack

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 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 Dolcette 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 Dolcette Savini has resulted in the development of three packaging lines, specifically designed by the group for the bread sector of the Tu-

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

- Monopiega Diamond 650 wrapper. This is an innovative and high-performance shrink wrapping machi-





ne, 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. [🏠](#)



# GLOBAL CUSTOMER base demands global support



In modern industrial operations, it is rare to find a company that has earned a reputation based solely on the quality of the products or machines it manufactures. These days, an equally important element of any company's market standing is the level and quality of pre- and post-sales support it can offer.

Much like consumers who have experienced easy and pleasant purchase-and-support experiences from high street stores or online retailers, industrial end users are looking for suppliers who can act as full-solution providers, as opposed to just hardware vendors.

In the food and beverage industry, this

heightened level of service is essential, as many companies work using agile and lean principles in order to generate the best possible yield and efficiency. As a result, extended downtime is not acceptable, which means that these end users depend on their machine suppliers to help maintain maximum uptime.

In a local context, the delivery of in-person support is relatively straightforward, the same is true on a national scale, albeit a little slower for on-site visits, but delivering this level of support internationally becomes more difficult and sometimes

to leading multi-national companies in many countries and, as such, has grown a rapid-reaction support network to make sure it can operate as quickly as possible and as locally as possible to its installed machine base.

process streamlining; uptime optimisation; and software patching, updating & enhancement.

The programme also offers Augmented Reality (AR) capabilities – using an app



An example would be its commitment to the Americas, where it has two permanent technicians in the USA and another in Mexico, all of which are supported by a comprehensive centrally located spares facility in Indiana.

Zacmi offers support in nine other core markets too, comprising either technician access or remote interactions; and the global team is backed by Zacmi's own support team in Parma, which comprises five engineers and 10 technicians who can travel to where local on-site support is not available or additional support is required. In addition to technical assistance, the support team can also help with installation, training spares and upgrades.

Thanks to advanced automation hardware and on-machine digitalisation, Zacmi is also able to offer its class-leading Remote Access Service (RAS) programme. Using a secure communication network, engineers from Zacmi can connect to machines – anywhere in the world – to deliver a range of value-added services, including: monitoring and troubleshooting; start-up &

– for connection via smartphone, tablet and even smart glasses. Using this service, end users can interact virtually with Zacmi's support team in real time or via photo and video messages. Live training sessions can also be undertaken to help increase Overall Equipment Effectiveness (OEE).

"Any company with a global footprint, such as ours, has to offer a comprehensive support infrastructure," explains Martino Chiefari, USA After-Sales Manager, at Zacmi. "We have to deliver peace of mind as well as class-leading technology and help ensure that our customers are operating as efficiently as possible. One of our key selling points is OEE, so we must fulfil this promise with dependable support, no matter where the customer is located." 🏢

[www.zacmi.com/en/after-sales/](http://www.zacmi.com/en/after-sales/)

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FOOD & BEVERAGE PLANTS

attracts longer lead times. It is for this reason that many companies are investing in an international support network.

One such company is Parma, Italy-based Zacmi, a designer, fabricator and installer of tailor-made filling, seaming and processing lines for the international food and beverage industry. The company supplies high-end equipment

# New models of compact shrinkwrappers with 90° infeed. ASW ERGON series



**A**mong the numerous innovations made to its product portfolio, SMI has decided to expand the ASW ERGON series of compact packaging machines for shrink film packaging with single lane infeed and 90° product introduction. The range of this type of machines, has in fact been enriched with 6 new models, dedicated to the packaging of a wide range of containers with a cylindrical, oval or square / rectangular base at the maximum speed of 30 (ASW 30) and 40 (ASW 40) packs per minute. The ASW ERGON series was designed two years ago, from the desire to offer a compact version with single lane infeed, suitable for production needs from 50 to 80 packs per minute, of the "historic"

range of SK series automatic packaging machines, marketed by SMI with great success since the mid-nineties. The favorable market reception of the ASW 50, 60 and 80 has led SMI to extend the range of these machines also to those who need lower speeds, introducing the new ASW 30 and ASW 40 ERGON models. The latter combine the best of the SK ERGON series with some innovative technical solutions present on the models of the LSK ERGON series in terms of modular assembly, space saving, process simplification, advanced ergonomics and latest generation automation. The various models of the ASW ERGON series allow packaging in shrink film only, in pad + film and in tray + film.



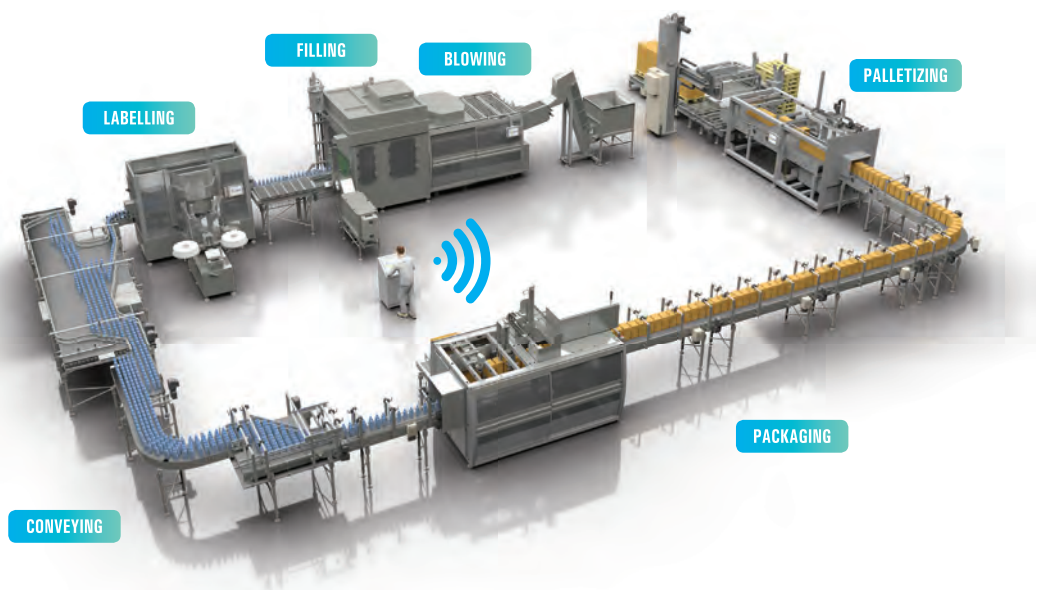
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**New models of compact shrinkwrappers with 90° infeed**


The ASW packaging machines, equipped with a single-lane infeed belt, have the considerable **advantage**, also in economic terms, of **not requiring the presence of a divider for channeling loose products**; moreover, **the format change operations are completed quickly and in a simplified manner**, because it is possible to process different types of containers, of various sizes, without having to resort to additional equipment. This compact solution easily adapts to the logistical conditions of the end of line of any production plant; in fact, in the infeed section, the ASW ERGON SMI packaging machines, are equipped with a single lane infeed system, preferably positioned on the side opposite the operator, which facilitates the correct channeling of loose containers on a conveyor belt equipped with low friction thermoplastic chains. In the pack formation area, a pneumatic device groups the containers alternately, before the packaging operation, in the desired configuration; this section is

characterized by a double belt system, which, through an electronic cam, separates the products according to the format to be processed. Subsequently, thanks to the rotary feeder, the loose products are moved from the single lane conveyor to the multi-way conveyor belt at the machine infeed.

In the ASW P and T models, the carton magazine is located under the infeed belt; from here the corrugated cardboard pads or trays, taken by means of an alternating motion picker equipped with a group of suction cups with pneumatic suction system, run along the cardboard ramp and are positioned under the group of incoming products with the wide side facing forwards. The unwinding of the film reels, positioned in the lower part of the machine, is controlled by a progressive brake, which ensures optimal film tensioning. The splicing of the film at the end of the reel, takes

place via a manual sealing bar. The reel-holder spindles have pneumatic locking and when the reel film is running out, a special device intervenes to stop the machine. Before the pack enters the shrink tunnel, the film is cut by a motorized blade knife, wrapped around the group of containers and superimposed on the bottom of the pack.

**ASW 30/40**

- Single lane infeed
- 90° product introduction
- Compact structure
- Rapid, simplified format changeover
- Easier maintenance
- Film unwinding controlled by progressive brake, which ensures constant and optimal film tensioning
- Automatic setting of film winder
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# SLIMFRESH



**GB** Bernucci is an historic company operating in the food packaging since 1946. In accordance with the law and in compliance with quality requirements, **GB Bernucci**, with its business partners, provides a wide range of packaging solutions and is constantly dedicated to the research and development of innovative products made of eco-friendly materials that comply with its Mission: **Food Safety, Respect for the Environment & Search for innovative packaging.**

## SLIMFRESH

One of the most extraordinary products that **GB Bernucci** offers is **Slimfresh**: it is an innovative and environmentally friendly packaging solution, made of a laminated cardboard base with a food liner and coated with a top as a second invisible skin around the product. This coating offers the possibility of

extending food shelflife, ensuring freshness and time lasting. Recycling and sustainability are the guidelines of this new eco-friendly packaging: with a simple gesture you can remove the paper from the film ensuring an efficient recycling. **Slimfresh** is indeed recyclable with paper.

The versatility of the product and its immediate display are the strengths of his new packaging. In addition, thanks to a completely customizable paper based with four colour printing, it offers a new advertising solution and it also give the opportunity to pack irregular shapes for better merchandising.

Upon request, **Slimfresh** can be produced with paper branded FSC (Forest Stewardship Council). FSC, is the international NGO that established a certification system to ensure responsible forest management and sustainability in the wood-paper supply chain.

FSC issues two different certifications: FMC (Forest Management Certification) and COC (Chain of Custody).

In summary, this skin-pack is the solution to meet the various needs of the consumer, manufacturer and environment.

## PAPERSEAL

**Paperseal® is an innovative, eco-friendly and sustainable tray that offers brands and retailers the opportunity to replace Modified Atmosphere Packaging (MAP) plastic trays and Vacuum Skin Packaging (VSP) trays with a barrier-lined paperboard alternative.**

Compared to traditional trays, this new packaging allows a plastic reduction of about 90% as the thin inner layer can be easily removed and disposed separately, ensuring an efficient recycling.



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This tray is recommended for cheese, fresh or processed meat, ready-made products, frozen foods, snacks, salad and fruit. The hermetically-sealed tray ensures the product remains fresh, with up to 28 days of shelf life, depending on the application. Minimum bulk and maximum advantage in one single

packaging. The exclusive sealing process leads to a perfectly sealed surface. It is possible to customize the whole surface of the tray with an offset print up to 5+5 colors, both internally and externally, ensuring a 360° communication that perfectly meets the requirements of each

customer. PaperSeal® Cook is a brand new tray technology for oven and microwave-ready chilled and frozen food applications. It has been created to match the functionality and performance of existing trays. . 

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- ✓ Liquids
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# LABELPACK, packaging of baked sweets

**F**low-pack packaging machines offer the most high performance solutions for packaging sweet baked goods (for example brioches, rolls, snack cakes, cookies, and breadsticks), creating a very protective package while maintaining the visibility of the product inside thanks to the use of special neutral or printed plastic films.

Some sweet products are packaged loose in plastic bags with the classic vertical packaging machines, which are capable of creating pillow bags

or square-bottom bags. The use of neutral or partially printed plastic film makes it possible to manage the packaging of small production lots by customising the package during the packaging phase through the application of a self-adhesive label which displays all of the product information.

The LABELX® labelling machines can be perfectly integrated into flow-pack packaging lines with a high or low bobbin, for label application that keeps up with the constant flow, elec-

tronically synchronised with the movement speed of the packaging film and on vertical packaging machines with application systems that can be integrated in the film unwinding area or in the forming tube area.

Two different LABELX® labelling machines are available: 140mm wide and 250 mm wide. The advanced management electronics guarantee precision of the application at any speed. All of the operating parameters can be managed from a simple and functional touch-screen operating panel.





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LABELLING EVOLUTION

Thanks to the integration of a printing and thermal transfer unit, LABELX<sup>®</sup> labelling machines can transform into high performance print & application systems that are capable of solving online-print issues with variable data like: product name, ingredients, bar code, and other customised information. The print data is managed by the BarTender<sup>®</sup> advanced label creation and printing software.

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MORE INFO



tions and, like all of the labelling machines produced by LABELPACK®, can be equipped with printing and thermal transfer modules for the printing of variable data and bar codes.

It can be configured to all application systems available on the market and with numerous accessories that allow for easy integration on the various kinds of packaging machines.

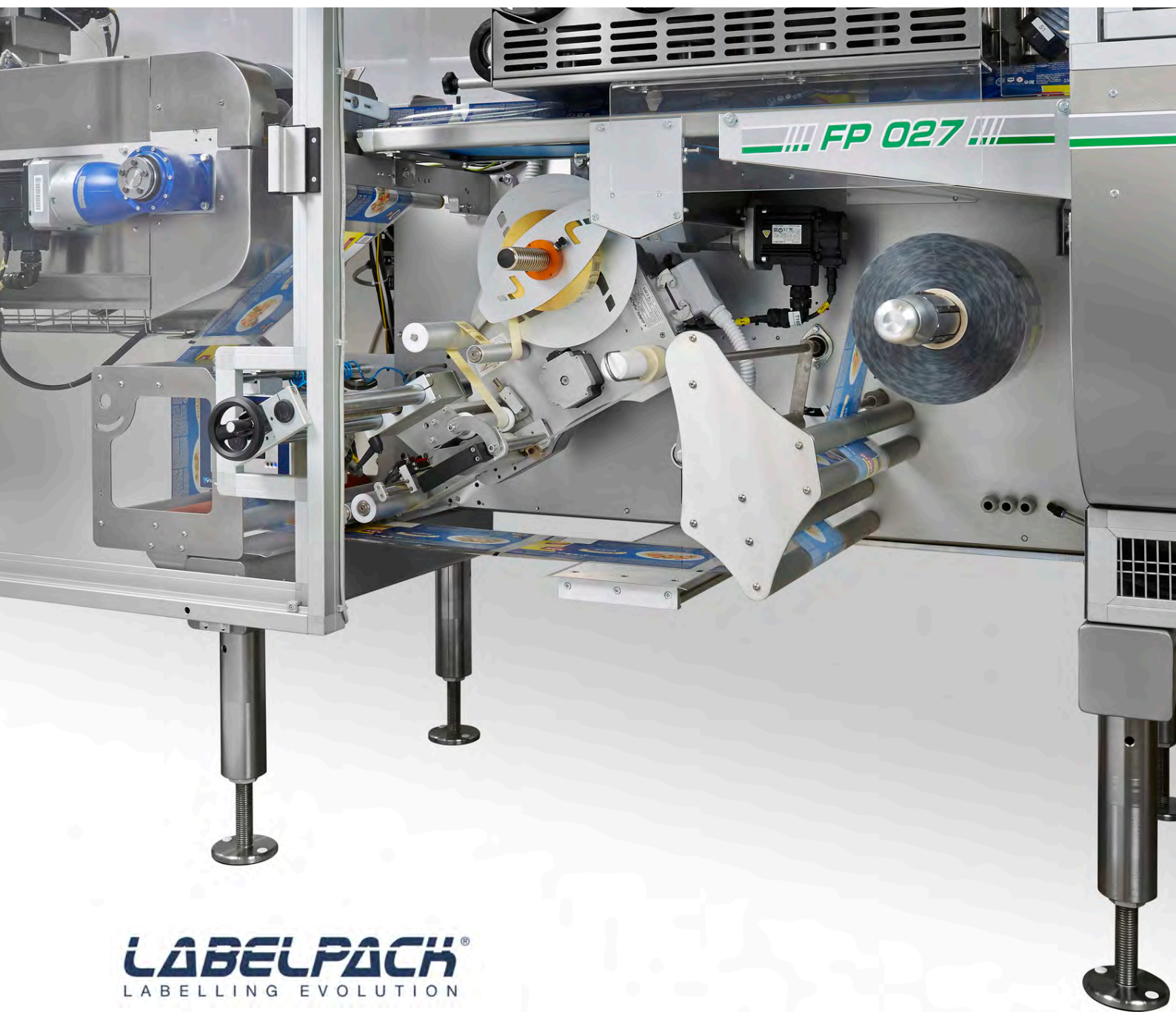
LABELX® labelling machines are the heart of the MODULAR and COM-

PACT labelling systems. These systems are specifically designed for automatic labelling downstream of the packaging machine for primary packaging in which integration on the packaging machine itself is not possible.

The system has a modular structure with a stainless steel tubular frame that houses the labelling units and the conveyor belt which transports the products and other accessories necessary for the proper application

of labels on the package. The direct and indirect collaboration with numerous manufacturers of flow-pack and vertical packaging machines has allowed LABELPACK® to develop solutions which are always up-to-date, adapted to the ongoing technological evolutions in the sector, and able to respond to the need for flexibility and reliability requested by users. 🏭

[www.labelpack.it](http://www.labelpack.it)



**LABELPACK®**  
LABELLING EVOLUTION

**FOOD**  
processing



**GSP 50 S**  
electronic horizontal  
pillow pack  
wrapping machine



# BE THE EVOLUTION



**HIGH-SPEED  
PACKAGING LINE**



Via Lago di Albano, 82  
36015 Schio (VI) Italy  
info@gsp.it - www.gsp.it



*general system pack*

**+39 0445 576 285**

# The (re)discovery of hygiene, health and safety connection with COLUSSI ERMES

*The whole world has a new awareness: the connection between hygiene and health cannot just exist but must be tangible.*



**H**ow? This is Colussi Ermes' starting point. This company specialized in food industry washing systems has seized the opportunity to renovate their mission, which has always aimed to pursue perfection in terms of hygiene and sanitization.

Colussi has done so trying to strengthen the concept of safety in the food industry world. During such an intense period, many food-production companies faced the demand to comply with new strict standards.

No one knows this better than Colussi Ermes who has met many new requests coming from its clients: ranging from the meat to the dairy industry, from the confectionary field to fruit and vegetable production, from the poultry sector to fish industry. How can safety be increased during the food production and washing cycle? With solutions that allow to reduce cross-contamination risks thus protecting consumers and also with the kind of care for every detail that distinguishes Colussi Ermes. Machine design, energy consump-

tion reduction, water and detergent use, cycle automation, loading/overflowing automation and the parameter monitoring in compliance with HACCP rules are just a few of the features that combined in a single washing system make the difference. The CIP (Clean in Place) self-wash programs are an example of this. Their goal is to protect and decontaminate the production lines from organic and inorganic contaminating agents.

Thanks to this automatic system – that involves all of the machine circuits,





walls and key points and that is performed with pre-set pressure and temperature including also a final rinse and sanitization phase – companies can reach the high safety standards that are required.

Colussi Ermes’ challenge for 2022 becomes another opportunity to make the world a safer place. Two new plants have been built comprising the new Colussi Research Centre site.

This is an actual innovation space, a lab where experts can study new improved systems for industrial washing, sanitization and drying that guarantee energy savings and that aim to ensure higher quality, safety, performance and efficiency levels. The new site, which are completely covered with solar panels, qualify Colussi Ermes as a model of sustainable excellence.

Colussi Ermes exports all over the world, extensively in many countries. Europe, North America and Australia

are the main markets where the most important sales targets are constantly reached. Furthermore, with the aim of strengthening the efficiency in the American market, Colussi Aws Inc. has been established in California, together with an all-American brand.

**Saving resources**

Large and small companies working in the food market and using COLUSSI-ERMES machines have been able to achieve extraordinary advantages such as:

- dramatic energy and chemical savings
- environmentally friendly wash op-

erations

- reduced wash time vs. very high hygienic and sanitary standards
- increased production capacities and safety
- better working performance of their staff

Colussi Ermes is continuously innovating to improve your safety.

This is a company that marked its path with its resilience spirit which is fundamental in this memorable period. 🏛️

[www.colussiermes.com](http://www.colussiermes.com)





# COLUSSI ERMES

Advanced Washing Systems

COLUSSI ERMES is a worldwide leader in the design and manufacture of tailor made washing systems in various food sectors, such as the bakery, confectionery, chocolate, meat and dairy, and also in logistics, pharmaceutical, hospital and automotive Industry. Every project is extensively studied, customized and developed by Colussi Ermes specialists in order to ensure the absolute hygiene fully satisfying the most severe and rigorous international standards HACCP.

## Inline Tunnel Washers and Spin Drying Systems for Plastic Crates and Pallets

Colussi Ermes will propose the best solutions for manual and inline crate washers with a great range of capacities, up to 10,000 crates/hour. These systems allow to wash different crate shapes and types such as collapsible, rigid and stackable crates. All Colussi Ermes crate washing system ensure maximum hygiene, eliminating any bacteria – even the most aggressive – in compliance with pharmaceutical-hospital hygiene standards. Continuous innovation over the years has led not only to the creation of more and more powerful spin-drying systems – with increased performance levels – but also to the idea and design of the “super-compact” spin dryer: a machine that is able to combine high drying capacity with minimum footprint.



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

Colussi AWS Inc.  
9520 Chesapeake Drive,  
Suite 606  
92123 San Diego USA  
+1 858w 384 2222  
info@colussiaws.com

# The TOP QUALITY industrial mixers

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

## BAKERY Equipment

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

## PASTRY Equipment

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



[www.eschermixers.com](http://www.eschermixers.com)

# ESCHER

mixers



# RUMMO is born again thanks to unique partners

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

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

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

## #SAVERUMMO IS ICI CALDAIE'S CONTRIBUTION

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

tory with its expertise.

### The beginning of a successful collaboration

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

To achieve this ambitious goal, Rummo decided to turn to an important ESCO (Energy Service Company) operating in the industrial sector, S4E System ([www.s4esystem.it](http://www.s4esystem.it)). This company had been working for some time with ICI Caldaie, an Italian boilers and steam generators manufacturer







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

To do so, ICI Caldaie has always relied on the collaboration with national and international partners, including research centres, universities and manufacturing companies, and on innovative methods (including design thinking, a person-centred process aimed at solving complex problems). ICI Caldaie, in fact, strongly believes that only through a multifaceted and versatile know-how it is possible to create a truly efficient and functional system. In

the specific case of Rummo, the challenge was to continue to improve the quality of its production, reducing both energy costs and the company's environmental impact. Making use of each other's expertise, ICI Caldaie and S4E System developed several solutions that perfectly met the requirements of the pasta factory.

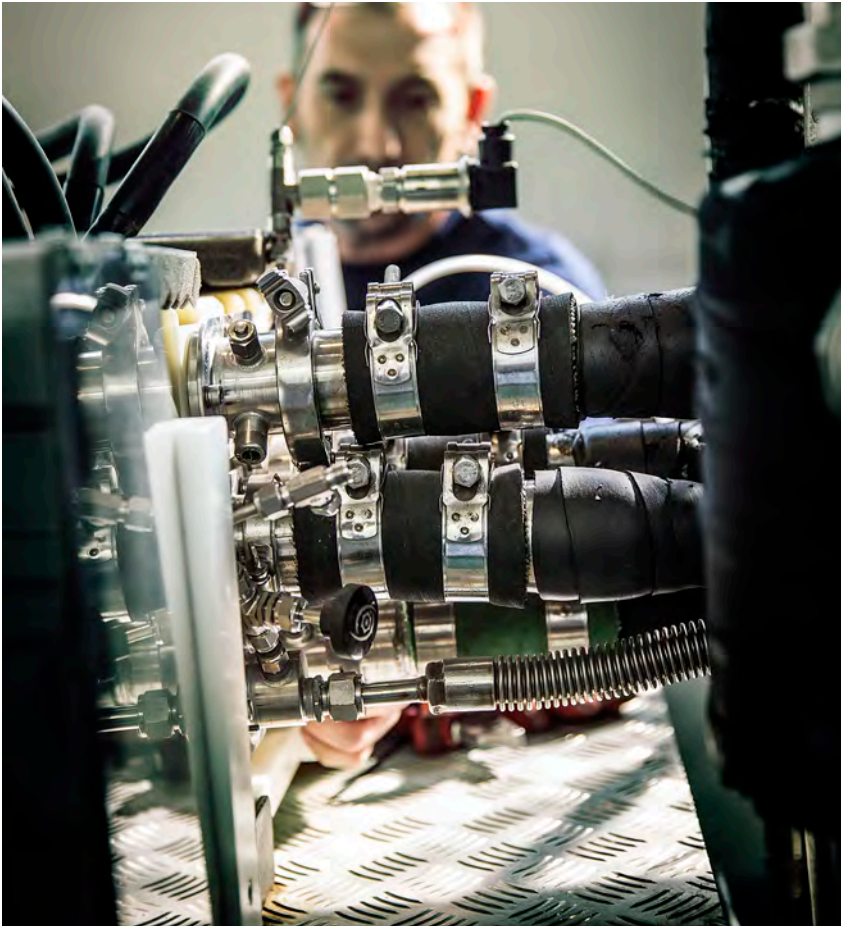
#### **Interventions and results**

The design and modernizing activity was performed throughout 2016 in collaboration with the plant technicians, and ended in 2017. The interventions mainly focused on the heating plant, but also involved the refrigeration plant, the compressed air plant, the vacuum plant and the general energy monitoring system of the heating and refrigeration plant, including the Energy Diagnosis procedure according to the Legislative Decree 102/2014. The main intervention in

the heating plant was to improve the production efficiency of superheated water. S4E System identified the main problem, detecting an ex-ante situation with an efficiency of 86% characterised by the presence of a boiler that used diathermic oil as an intermediate heat transfer fluid for the production of superheated water at 140°C.

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

To date, the boiler working on the three pasta production lines in Room 2 produces at full capacity about 50% of the nominal power. This translates



into a methane consumption saving of 200,233 Sm<sup>3</sup>/year, corresponding to about 58,000 €/year. The new system configuration also eliminates the diathermic oil circulation pump (diathermic oil pump Q=400mc/h H=35mt c.l. Pel ass= 45kWel) with a consequent electricity-saving equal to 356,400 kWh/year, about 28,500 €/year.

The energy efficiency path has thus produced the expected results: lower costs and reduced environmental impact.

Overall, the intervention conceived by S4E System and carried out through the introduction of an ICI Caldaie boiler has led to saving about 234 TOE/year, a cost reduction of about 86,500 €/year and a decrease of about 520.86 tons of CO<sub>2</sub>. The energy improvement process is not limited to this but has involved other sectors with excellent results. In the refrigeration plant, for instance, a reduction in

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



TOTAL ECONOMIC SAVINGS

**154.100** €/year



TONS OF CO<sub>2</sub> SAVING EVERY YEAR

**800** Ton/year



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



TOTAL POWER SAVING

**1.202.359** kWh/year





energy consumption for the production of chilled water has been achieved by changing the system configuration and improving the efficiency of chilled water production by achieving an EER of 4.5.

This result was made possible thanks to inserting refrigeration units with screw compressors under inverter and replacing the plate heat exchanger with direct exchange and mixing hydraulic disconnector to work at the same

temperatures as the cooling tunnels of 14°C. The electricity saving is equal to 282,972 kWh/year, equivalent to about 22,600 €/year, i.e. 93 tons of CO<sub>2</sub> less released into the atmosphere. As for the compressed air power plant, the ex-ante situation was based on fixed speed compressors.

These were replaced by inverters compressors, which resulted in an electricity saving of 30%, about 325,387 kWh/year, corresponding to about 26,000 €/year and a reduction of about 107.38 tons of CO<sub>2</sub>. Finally, in the vacuum plant, the vacuum pump has been replaced by a liquid ring pump cooled by the chilled water produced by the Fridge Units with an air-cooled pump.

This replacement has allowed a saving of electricity of 30 kWh in addition to the non-use of chilled water for cooling, which means a saving of electricity of 237,600 kWh/year, equivalent to about 19,000 €/year and about 78.41 tons of CO<sub>2</sub> less released into the atmosphere. S4E System has also introduced an energy monitoring system for the heating and cooling plant, and also installed switchboards with PLC and digital interface to replace the previous electromechanical switchboards with no digital interface. In 2019, Rummo commissioned S4E System to carry out and transmit the Energy Diagnosis procedure according to the Legislative Decree 102/2014.

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

When the client's initial needs are fully met, there is no question of success. Success is made possible by the vision of those companies that no longer think themselves in terms of simple producers, from an individual perspective, but see the project on a larger scale.

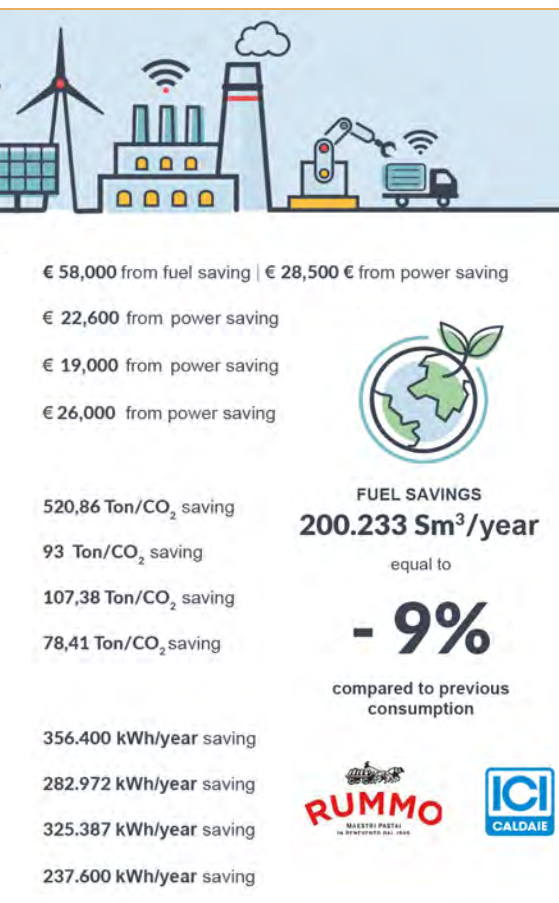
Only if driven by the desire to achieve a comprehensive solution one can establish partnerships with other companies that have different specializations and bring together multiple skills to develop complete projects.

With this ambition in mind, a company like ICI Caldaie collaborated in the energy improvement process of another company, in this case Rummo, not simply offering its boilers, but participating in a design process that involved many other areas.

Starting from a specific urgency, making useful energy-saving actions, it has been possible to create a condition of saving in a wider sense, making the company sustainable while maintaining the high-quality standards of its efficiency and productivity.

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

[www.icaldaie.com](http://www.icaldaie.com)



## “ AI TRENDS IN THE FOOD PROCESSING INDUSTRY ”

**A** I has been a rapidly growing part of the business world for a number of years. Recent developments in the technology have accelerated that growth to the point where it is now believed that AI is going to be the driving force for innovation in business over the next 12 months. In the food processing industry especially, AI is a huge factor in the move towards smart factories. As we look towards 2022, we can see what trends in this space are likely to bring the biggest changes to the industry moving forward.

### Deep Learning

Deep learning is where machines are able to learn and adapt to be able to complete new tasks. It utilises data, statistics and predictive modelling to, in a way, mimic the way in which human cognitive function is able to

work out tasks critically. Rather than a linear code structure deep learning code is much more complex and ambiguous. In a way, deep learning is a way of automating predictive analysis. With the recent uptake of AI over the last several years deep learning is set to have a larger and larger role in how AI is used on the factory floor in the future.

This is because the AI that has been previously installed will now or will soon be required to adapt to changes. This is where deep learning comes in to allow those changes on the factory floor to be made without large scale and expensive hardware changes. For the food processing industry this is especially beneficial. Deep learning means that hardware is able to adapt to changes in manufacturing process such as recipe chan-



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agenziatecnologie.com



## Steam and superheated water boilers for food industry

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



[icicaldaie.com](http://icicaldaie.com)

ges or even entire product changes without the need to change the machines. This saves money for the business and also builds agility so that the company can respond with speed to changes in the market, ultimately improving profitability.

### **Robotics**

One of the most obvious ways in which AI is able to serve the food processing industry is through the improvement of robotics that it is able to bring. AI is able to create smarter processes through intuitive coding that improve the productivity of the machines on the factory floor. This is a key area of improvement for businesses in the industry. In fact, it is often the primary factor in the decision for business owners to implement AI into manufacturing processes. Improvements to the robotics speed up production which increases the capacity of the business, ultimately improving profit margins. As a result, improvements in the robotic technologies on the factory floor is set to remain a major trend for AI in the manufacturing industry.

### **Marketing and Reduced Admin**

AI is also to help businesses away from the factory floor. It also able to promote the company and streamline

their marketing processes. AI is able to interpret data effectively to work out exactly what the end user's requirements are. This helps businesses to effectively market themselves to new customers improving their sales and increasing profits.

Similar technology can also be used to complete more menial tasks. One of the ways in which AI is looking to progress in the future is through document analysis. This means that admin tasks that would previously have to be completed by staff, who often dislike this area of their role, can now be automated. The streamlining of this process has a number of benefits, where in areas of the business where there can be a lot of red tape. Not only is the admin process made more efficient by the use of AI, the lack of admin can also improve both staff productivity and satisfaction. This is because they can focus on the more challenging areas of their jobs without the need for the distraction of admin tasks.

As noted at the beginning of this article, AI is one of the quickest evolving areas in business and its potential is almost unlimited. The trends we are seeing now are just a small part of where we see the technology reaching in the future. For businesses, harnessing that technology now is key to moving with the technology as it develops to give themselves the platform to utilise AI properly.





## PTFE Hoses for Food and Pharmaceutical Industry.

- Unique Patented Design
- Non-Absorbent Liner • High Hygienic
- Maximum Flexibility
- "Platinum Cured" Silicone Cover
- Chemical and High Temperature Resistant
  - Manufactured Under EN 16643.

April 2021 Edition

**Allegri Cesare S.p.A.**

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Download from Our Site the New  
 PTFE Flexible Hoses Catalog!



Since 1951.

# ALLEGRI, flexible hoses for the food industry

## **P** HARMALINE N Hose

W/PHARMALINE N is an unique line of products, PTFE hoses smoothbore inside and convoluted outside, and now included a 316 SS helical reinforcing wire wound into convoluted on the outside to improve strength and flexibility. Covered with a braid AISI 316 SS and a "Platinum-Cured" white silicone rubber cover marked in accordance with EN16643.

The Pharmaline N hose has been designed for to obviate the lack of flexibility and easy of clean internally and externaly of the hose.

## **PHARMALINE X** Hose

W/PHARMALINE X is a very flexible smoothbore inside PTFE hose convoluted outside included a 316 SS helical reinforcing wire with a clear silicone rubber cover "Platinum Cured" marked in accordance with EN16643.

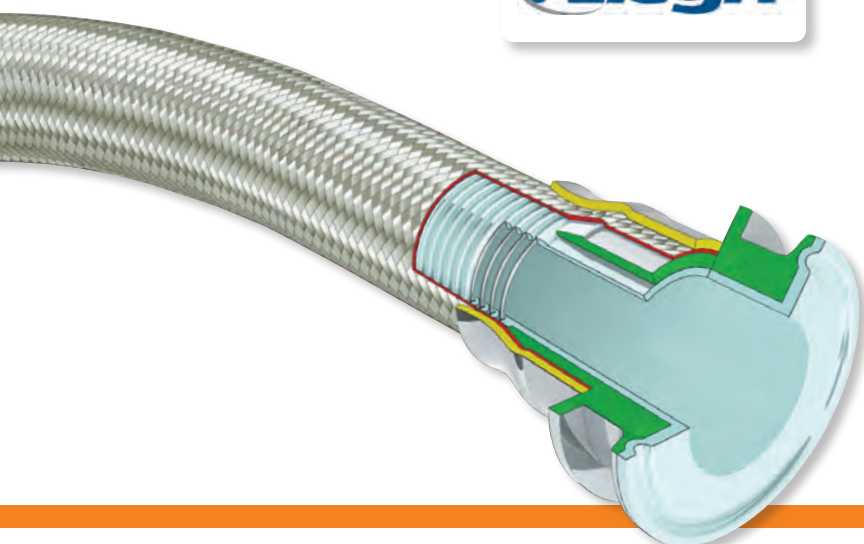
It is designed to replace conventional all-silicone rubber hoses in application where the inner silicone rubber liner may be subject to chemical reaction with fluids passing through, which may either contaminate the fluid, or degrade the rubber liner.

### **APPLICATIONS**

Thanks to its high purity the Pharmaline X is designed for uses not burdensome and high hygiene where the operating pressure is not high; It is particularly suitable in pharmaceutical, biotech, chemical and food due to its high degree of cleaning inside and outside.

It 'also used in industrial general applications, especially for the passage of hot liquids and gases. 🏭

[www.allegricesare.com](http://www.allegricesare.com)







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MACHINE FOR ICE CREAM CONES  
AND WAFER MOLDED PRODUCTS

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EXPERIENCE

—  
Imar has more than 60 years of experience and highly qualified staff



INNOVATION

—  
We never stop improving  
Catching the best that technology can offer



HIGH STANDARDS

—  
We always offer high quality products and services to match any customer request



PASSION

—  
We love our job and our planet. Our mission is a sustainable and environmental friendly production

# Food Machinery Industry Rome

**B**ased in Italy I.M.A.R. company is specialized in manufacturing ovens for the production of molded ice cream cones, cups, and wafer products and take-away containers in a wide variety of shapes, from the shape of a fish or a corncob to a flower or even a bear, also using gluten-free or vegan batter.

Delicious ice cream cones and cups, custom-made, also vegan and gluten-free.

Waffle-based products are 100% eco-friendly. They can replace plas-

tic products, as they are completely biodegradable and edible at the same time.

We have been producing wafer baking machines and molds since 1947, selling them all over the world and we keep growing with our

long work experiences in this field. We are 11 people working inside IMAR premises, where we have our Research & Development division with two engineers and one project manager, so that we can offer a design and engineering dedicated to each client.





## Coffee & Chocolate Pleasure

Cialda ricoperta di cioccolato fondente, per una nuova emozione al caffè.





At IMAR we also manufacture the molds and we assemble the equipment; and then we directly co-operate with two companies nearby IMAR for the manufacturing of some parts of the machine .

Our machinery fulfill any production rate (from 2000 pcs up to 8.000 pcs/h) and wafer products can have any shape and dimension (upon customer request and/or drawing).

Five models are available:

- type AML 14 complete with a set of 14 moulds, production rate from 2.000 to 3.600 pcs/h,
- type AML 18, complete with a set of 18 moulds, production rate from 2.600 to 4.500 pcs/h
- type AML 21, complete with a set of 21 moulds, production rate from 3.000 to 5.300 pcs/h
- type AML 28, complete with a set of 28 moulds, production rate from 4.000 to 7.000 pcs/h
- type AML 36, complete with a set

of 36 moulds, production rate from 5.000 to 8.000 pcs/h

Production rate can be calculated according to the diameter of the cone/cup.

Each machine has a Remote Control Device installed, so that we, from our office in Italy, can connect to the oven, to the PLC of the oven, in the event of problems or malfunctioning and help the customer to solve any issue.

After-sale Service, with our dedicated office, is also another important issue that we really care about. Just tell us about your project

This is the way we work, STEP BY STEP:

- (1) together with the customer we decide shape and dimensions of the cone.

- (2) IMAR prepare a drawing.

- (3) If the customer likes the drawing, we make a few samples with our 3D printer and we send them to the Customer.

- (4) Once the Customer places the order, we make some real samples and we send them to the Customer. Customer checks the samples. At this stage any variation on the cone is still possible.

- (5) Only after Customer's approval we start manufacturing the Molds, cause we want our Customers to have exactly the product they like.

Should you need a quotation or any additional information, please do not hesitate to contact us: 🏠

**imar@imaritaly.com**  
**www.imaritaly.com**



## CONVEYORS

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



MODUL-FLEX

## BUFFERING SYSTEMS

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



BAT BUFFER

## MERGERS & DIVIDERS

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



MERGER DU32



# FOOD GRADE CONVEYORS: a guide for selection

**T**he issue of food safety is rightly held in great importance by both institutions and manufacturing companies and over the years it has produced many regulatory updates and best practices for machine building.

EU legislation (No. 1935/2004) is the milestone, but it certainly cannot be the only one, first of all because each country can integrate additional requirements and secondly because the legislation refers only to the requirements of materials that come into direct contact with food, but does not establish specific construction standards, which rather derive from the need to prevent contamination of products during the use of machinery.

The fact that the burden of ensuring proper sanitation of the systems falls on the user has led as a direct consequence to an “enrichment” of the project specifications by the food companies that have spread through the machine manufacturers along the entire supply chain.

Although widespread, this approach is not correct and entails significant increases in terms of both the cost of the machinery and the time required for the design and maintenance of the plants.

With reference to conveyor belts, the philosophy of **M.H. Material Handling** is to propose adequate solutions from a regulatory point of view while safeguarding the value of the investment; we will therefore analyze three possible construction standards: washdown, easy to clean and finally hygienic design (we exclude belts



*The philosophy of M.H. Material Handling is to propose adequate solutions from a regulatory point of view, safeguarding the value of the investment.*



for packaged products positioned in the dry area for which aluminum or painted iron structures comply with all regulatory requirements). We assume that every time a part of the belt can come into contact with the food product, materials that comply with current legislation are used with accompanying documentation.

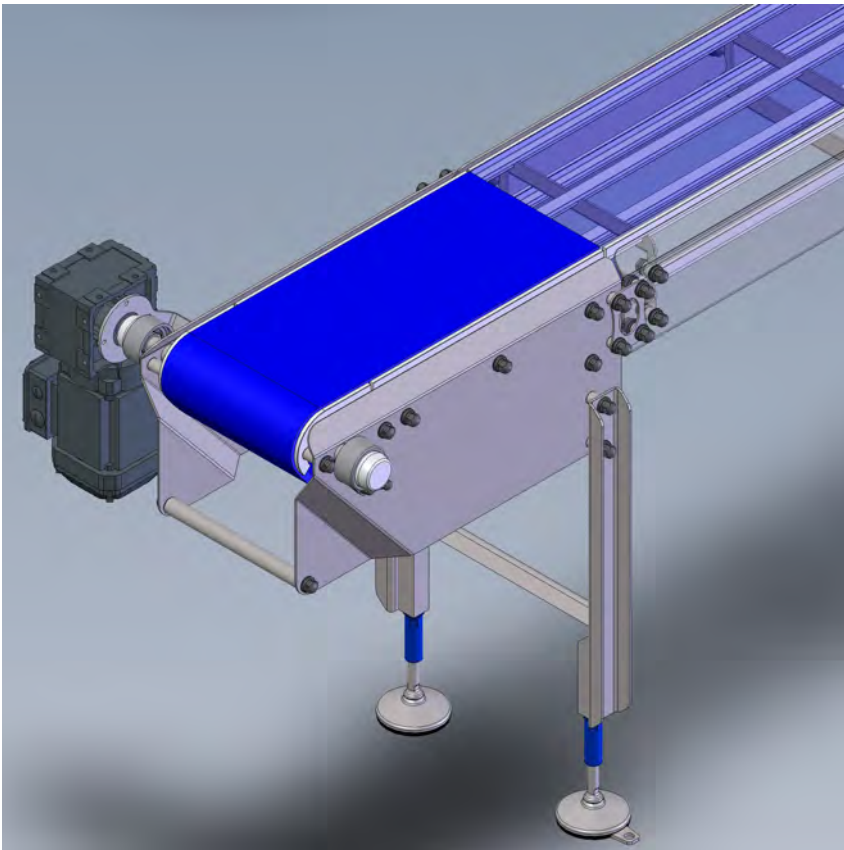
The **washdown** conveyors are built with materials suitable for washing with water and possibly detergents, the ultimate goal is to preserve the life of the machine as they are positioned in the white area.

Structure and accessories are in stainless steel, while electric motors and pneumatic accessories can be standard components with simple splash guards, also in stainless steel.

They should be used for the transport of packaged or semi-packaged products, contact with food is occasional in case of loss of product from the packaging.

The **easy to clean** construction represents a further step forward compared to the washdown, in addition to the features listed above, the design allows easy disassembly to allow scheduled cleaning with a certain frequency. It is a compromise that allows the transportation of unpackaged foods as long as they are products that do not present any risk of bacterial load formation.

When there is a strong risk of bacteria formation it is necessary to switch to **hygienic design**. This is a much more stringent construction standard, which provides wide accessibility to all parts



of the machinery (this feature requires mediation with safety regulations). It uses screws and special spacers, with gaskets, in order to avoid any coupling between flat surfaces, no visible threads and no horizontal or worse, concave surface in which the washing liquid can stagnate. The most typical application is the transport of naked products such as meats or cheeses and it is no coincidence that the construction indications derive directly from the American USDA regulations, developed precisely for these markets. 🏠

[www.mhmaterialhandling.com](http://www.mhmaterialhandling.com)





# EQUIPMENT for the BEVERAGE INDUSTRY



**WS** is a Company, founded in 2005, working as process equipment supplier for the beverage industry. During these years WS has achieved a very good reputation in the beverage industry field, managing to cooperate with the major global players, such as Coca Cola, Pepsi Cola, Nestlé Waters and Orangina-Schweppes, and with private investors installing new production facilities, quite often green fields, in emerging Countries.

WS has met new standards for product quality, energy saving and maximum plant output while complying with the strictest criteria for hygiene and safety. All the devices are entirely conceived and designed to guarantee the best requirements in terms of microbiological, physical-chemical and organoleptic properties; the entire production process and software development are managed internally, as well as installations and commissionings which are carried out with WS's own resources.

WS' products for beverage industry are:

- **water purification plants** (mechanical filtration, microfiltration, reverse osmosis, UV disinfection, sterilisation) designed according to the Customer's exigencies and the chemical analysis;
- **sugar dissolving systems** (single batch, double batch and continuous up to 35.000 l/h);
- **semiautomatic and automatic syrup rooms;**
- **premix units;**
- **flash pasteurising units;**
- **ozone generators;**
- **carbonating equipments** (water, wine, beer, soft drinks);
- **in line syrup blending systems and ingredients mixing systems;**
- **steam sterilisable microfilter-**



**Mass control premix unit**

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

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

WS' philosophy is to manufacture high quality and reliable equipment, equipped only with top brand components: ALFA LAVAL, ENDRESS+HAUSER, PALL, ANTON PAAR, SIEMENS, FESTO, SPIRAX SARCO are the typical components our Customers will find on Their plants. The choice of providing only state-of-the-art solutions has brought us to be appointed as officially authorized integrator by ALFA LAVAL. Between main technical references, WS

can list the supply of two fruit juice tubular flash pasteurizers for aseptic filling to ORANGINA-SCHWEPES in France; furthermore, it's significant to point out that WS is included in NESTLÉ WATERS' authorized suppliers list for water purification systems: recently an important contract for the supply of a top-technology water treatment plant in the far East has been finalized. Amongst last supplies (early 2016), WS also boasts a complete line for soft drinks production in Las Vegas - USA (Coca Cola co-packer): from water treatment to hot fill pasteurizer, through sugar syrup preparation and ingredients mixing, also including CIP equipment. WS consider Customer Service one of the greatest keys to success: entire business, marketing, sales and profits depend on Customers' satisfaction so the after sales team is constantly trained to perform the simplest solution in the shortest possible time to support the Customer's business. 🏠

**[www.watersystems.it](http://www.watersystems.it)**



# EXPERTS IN CREATIVITY, innovation & sustainability



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

Since the beginning Lawer has always implemented the strategic decision to invest on people, research and new technologies. Thanks to the analysis and development of the technical department the company shows its strong projecting capabilities. The task

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

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

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

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

- **The highest quality of the finished product**

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

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

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

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



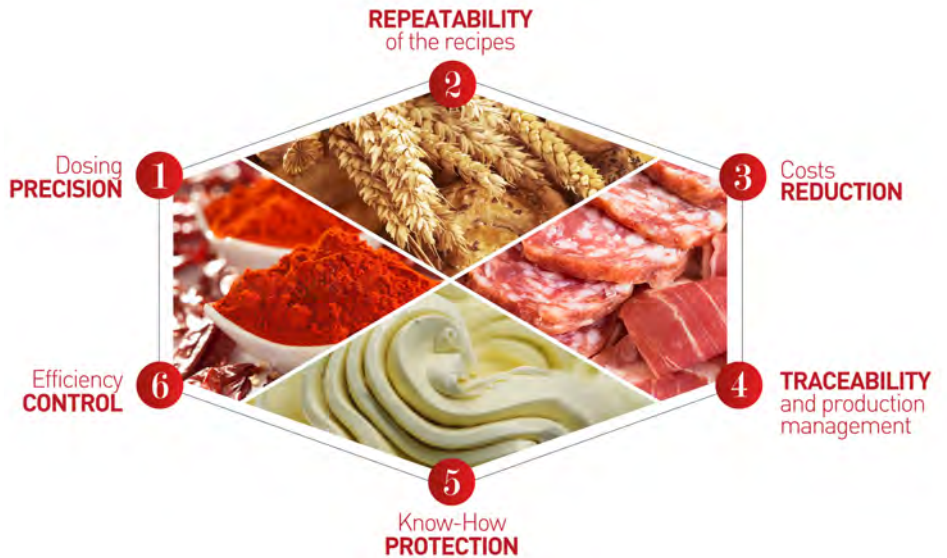
single raw material or each single recipe accessing to a protected area.

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

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

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

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



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

gle, double and multi scale technology (**mod. UNICA TWIN, UNICA HD & SD and mod. SUPERSIN-CRO**), 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](http://www.lawer.com)



# NIRSO EZIO: since 1969, an Italian excellence

*The Nirso company based in Busto Garolfo (province of Milan) was born in 1969 from an idea of Nirso Ezio.*

Interested in the world of meat grinding, Ezio designs and develops a line of accessories for meat grinders, in particular it specializes in the production of molds and knives that largely satisfy most of the manufacturers of plants for the food industry and producers of cured meats on the market.

Ezio, starting from simple ideas, brings to the market an increasingly innovative and quality product over the years.

In 1991 Ezio left the family business to his son Dario, who has always been very passionate about the world of small mechanical parts, he brings the company into constant professional growth and expansion on the Italian and foreign market

Since 2007, always attentive to market developments, the Nirso company has been buying new numerical control automation systems with software able to control in a precise and detailed way the various processing phases

In 2017, Dario studies and manufactures a patented and certified cutting kit for food use for the production of mortadella, which allows to bring numerous benefits in the grinding phases.

After numerous steps between mechanical tests and paperwork, this patent repays Dario for many difficult moments, when the competition was strong and the market difficult to scratch.

After years of sacrifice and constancy, success has arrived, Nirso products have high quality standards and are among the most





requested in the preparation of foods such as cured meats.

Another strong point of the company concerns the sharpening of molds and blades of any shape and size, with a department that presents high quality machinery.

In 2017, Dario added his son Marco to the company staff, representing the third generation, who deals with marketing and communication, supporting his father Dario in the various stages of mechanical processing, to steal all the secrets.

In 2021, thanks to the determination of his son Marco, the company proudly participated in the Meat Tech fair concerning the process and product technologies of the meat industry in Milan from 22 to 26 October, in conjunction with Host and Tutto Food

Humility, simplicity, constancy great human qualities at the helm of the Nirso factory have led it to today's awards.

From attention to detail to logistics, each piece that leaves the company represents the past and the future,

tools of the past and innovation come together obtaining the trust of the largest Italian food companies, all strictly Made in Italy. 🏭

**www.nirsoezio.it**  
**info@nirsoezio.it**



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

Thanks to the incentives,  
exponential growth towards agriculture 4.0



by Elisa Crotti

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

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

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



Unsplash

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

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

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

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

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

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

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



Unsplash

# Sustainability expert launches tray-to-tray solution to promote the circularity of the trays: the tray revive from AMB

**A**MB Spa, headquartered in San Daniele del Friuli in northern Italy, has established a reputation as one of the leading international suppliers of sustainable solutions for rigid and flexible films. AMB delivers an innovative 'all in one place' approach that covers the complete packaging process: packaging design, prototyping, toolmaking, high-barrier rigid and flexible film production and printing. With its focus on sustainability,

the company is committed to finding solutions that close the loop of the circular economy. As part of its overall sustainability strategy, it has recently developed the new AMB Tray Revive which utilizes post-consumer trays to create new trays.

## Sustainability in action

On the basis of the expertise and valuable insights gained through the company's long-standing bottle-to-tray recycling solution, it soon became

clear to AMB that demand for recycled bottles would divert rPET away from tray solutions. It is expected that the demand for bottle-to-bottle recycling from the bottle industry will use up to 0.5 million tonnes of rPET, therefore causing shortages for the production of recycled tray material. In collaboration with an Italian recycler, AMB launched an initiative to collect the material from post-consumer trays with the aim to promote the circularity of the food PET trays. This material





is broken down into flakes which are then used to manufacture a tray-to-tray product. As the demand for PET flakes is continuously growing, European design recycling guidelines for multilayer PET/PE transparent trays are currently being developed.

**AMB's Tray Revive guarantees high-performance quality**

To ensure the exceptional quality of the final trays, the raw material comes from 95% of food trays stream and undergoes a strict process of analysis. Post-consumer tray material is processed to avoid contaminations, and the quality of the flakes is then evaluated. AMB assesses the material for its impact on the extrusion process and its mechanical performance.

Additionally, the new film is subject to controls that evaluate its optical aspect and quality as well as its impact on the thermoforming process.

All these checks ensure that AMB customers can rely on the outstanding quality of the final trays: mechanical performance and thermoforming performance on FFS remain unchanged, and the gauge remains the same as for standard PET/PE or Mono PET. AMB Tray Revive drives the tray recyclability and helps AMB customers to boost their green credentials and attract retailers and consumers, who are increasingly heedful of environmentally friendly packaging solutions.

**Minimising the use of natural resources**

Recovering used food packaging and recycling post-consumer bottom PET trays has established AMB as one of the leading sustainability experts in the manufacture of packaging. Complying with the European Action plan, AMB are committed to boost the EU market for recycled plastics to 10 million tonnes by 2025, reducing the environmental impact of AMB products.

AMB's all-in-one place approach is matched by the company's end-to-end sustainability drive.

The Tray Revive is part of a wider strategy that includes improving collaboration and cooperation among all of AMB stakeholders with the goal of improving and developing the right actions and infrastructure to a sustainable and recycling packaging that works. Once again, AMB demonstrates its commitment to innovations and close the loop initiatives that combine high performance with the necessity of environmental protection. 🏠



Online auction meat and fish processing machinery in Landskrona (SE)



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



Online auction machinery and inventory due to discontinuation of business activities Fleischerei Mecke GmbH & Co. KG in Werne (DE)



Online auction machinery and inventory due to relocation of Goodlife Foods in Deurne (NL)



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# New Success for AKOMAG

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

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

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

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

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

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

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

## Mains water for spray-rinsing

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

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

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



Lavabottiglie “double-end”





## FURY SL doppia



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

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

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

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

[www.akomag.com](http://www.akomag.com)



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From the very first steps in ORION Engineering company, we decided that one of the most important point 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 center of an ethical and eco-sustainable business.



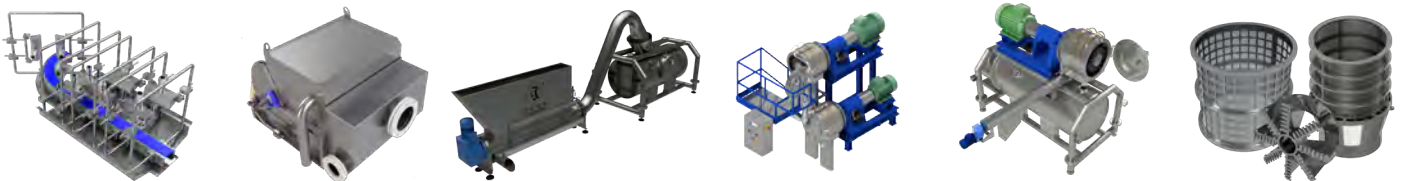
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# CIRCULAR ECONOMY: industry and environment in co-existence

## *“Pastazzo” promotion for an eco-friendly business*

**F**rom the very first steps in ORION Engineering company, we decided that one of the most important point 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 center of an ethical and eco-sustainable business.

The first achievements, obtained from these analyzes, 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 up new busi-

ness 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 ÷ 75%), pulp (30 ÷ 35%) and seeds (on average 0 ÷ 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;
  - 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 Bio-Gas 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 thicke-



ning 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 and

importance in 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 researches 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, a 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](http://www.orion-eng.it)

NEWS | in short

## MONDI packages potatoes in award-winning paper bag with Sustainex® bio-based coating

**M**ondi, a global leader in packaging and paper, has partnered with SILBO, a Polish leading producer of compostable packaging, to create a paper-based high-strength packaging for the Irish farm potato business Meade Farm Group. The innovative bags replace hard-to-recycle plastic with paper, a renewable resource enhanced with a bio-based coating and are certified as compostable .

Working closely for two years, SILBO, Meade and Mondi developed the FSC®-certified bag using speciality kraft paper to ensure strength in handling while providing barrier properties to keep the produce fresh. The bag has multiple sustainability features: a corn starch-based netting for a small cut-out window, water-based ink and Mondi's biodegradable Sustainex® coating, which provides heat sealing and moisture barrier protection. The packaging has been launched across Ireland, Poland, France and Germany,

- Mondi collaborated with food packaging specialist Silbo to develop an innovative paper bag with bio-based coating for the Meade Farm Group
- The high-strength bag is FSC®-certified and uses Mondi's speciality kraft paper, corn starch-based netting, Mondi's biodegradable Sustainex® coating and water-based ink
- The paper bag eliminates the need to use hard-to-recycle plastic

vation Award. The new solution helps Meade to achieve its sustainability goals: using packaging that is reusable, recyclable, renewable or compostable wherever possible.

Jan Murzyn, Extrusion Solutions & Speciality Kraft Paper Sales Manager Poland, Mondi, says: "The bags need to withstand very heavy weights, while providing a solution that is kinder to the planet. Our EcoSolutions approach means we work very closely with our customers to reach their sustainability goals and create a bespoke solution that represents the best possible option for the customer, the consumer, and the environment."

velopment Manager, explains: "The hybrid solution combines the excellent strength of speciality kraft paper and the tailor-made barrier and heat-sealing properties of compostable materials. Mondi's speciality kraft paper in combination with our net, waterbased print, and unique technology was a long sought solution in the food industry and allowed us to substitute the conventional combination of plastic and mesh. We created the worldwide first compostable form-fill-and-seal potato bag with net window to deliver strong, durable, breathable, eco-friendly packaging for Meade." 🏠

[www.orion-eng.it](http://www.orion-eng.it)

# INNOVATIVE AUTOMATIC DOSING SYSTEM: fast, accurate and eco friendly

*Color Service is an Italian excellence and since 1987 has positioned itself as a leading supplier of automatic dosing systems for any kind of powder and liquid product.*

**W**ith a start in the textile field and thanks to years of experience and know-how, Color Service introduced its unique technology into many markets segments (rubber, tire, cosmetics, plastics) before orienting his innovation into the food industry, where the dosing of powders and liquids requires considerable precision, speed and traceability.

## **Why dosing is so important in food processing?**

Weighing is a key element of the food production process for quality compliance: dosing the proper amount of ingredients is extremely important to fulfill recipe specifications and constant quality requirements. In most cases, the food industry's

weighing department employs operators who manually dose raw ingredients, resulting in difficult and complicated management in terms of weighing accuracy.

To support this necessity, our technology is designed to solve problems associated with the manual weighing of any kind of powders and liquids applied in the food industry and it is developed with the goal of achieving a safe, fast and precise dosing. The aim is therefore the development of high-efficiency systems that allow to minimize the production costs and boost productivity while also improving final product quality, essential for the competition of all companies.

According to customer's requirements, Color Service offers to the market two





solutions of automation: a complete full automatic and a semi automatic weighing system.

### **Full automatic dosing system**

With the full automatic dosing system, all processes are automatically monitored and data are recorded in the software integrated with the customer's management system. The activity of the operator is exclusively confined in the loading of products into storage silos of various capacities through high-performance vacu-

um for powders and pump for liquids that guarantee fast loading with low air consumption.

During the dosing, a multi-scale conveyor completely aspirated through a dedicated dust extraction system allows high dosing accuracy of recipes that can be dosed directly into a bucket or in identified bags created in a completely automatic way: this is a fundamental characteristic that allows each individual recipe to be traced. The full automatic system, guarantees High Dosing Accuracy,

Batch Traceability and Modularity of storage stations and according to product consumption and production requirements, the system offers several storage modules of different capacities that could be interchangeable or expanded in the future.

### **Semi-automatic dosing system**

On the other hand, the semi-automatic weighing system can offer a good compromise: the robotic storage of powder products with the manual





weighing assisted by a PC. In this way, according to the recipe, the system drops the right box and transfer it to the weighing position, where the operator, guided by the PC can dose the product.

**Key benefits of our automatic dispensing system**

By investing in an automatic dosing system, the customer will be able to benefit from a repeatable production process that runs 24 hours a day, is reliable and fast, in which human error is definitively eliminated and which allows leading to high-quality

end products with uniformity features throughout time.

Systems are user-friendly and software is intuitive and easy to use, allowing a quick and easy understanding.

„Dosing right the first time” as a consequence of accurate and exact dosing of powders and liquids, results in a reduction of product waste, energy/water consumption, processing times and, as a consequence, cost.

From the ecological point of view, our technology reduces to zero the exposure for operators to dangerous substances or toxic ingredients and provides absolute control of the dust

emitted during the weighing with the use of special suction devices, ensuring total operator safety and environmental protection.

Another significant advantage is the traceability of recipes. Indeed with a manual weighing, in case of non-conformity, it is impossible to identify all the products that are affected by this problem downstream and it is difficult to trace the causes upstream that can be represented for example by an incorrect mixing proportion or from a non-conformity of a specific ingredient. Without expensive labor costs due to manual batch processing and profit loss due to recipe formulation mistakes, companies can begin to boost profits, while offering a superior and uniform product to their customers. 🏠

[www.colors-service.eu](http://www.colors-service.eu)



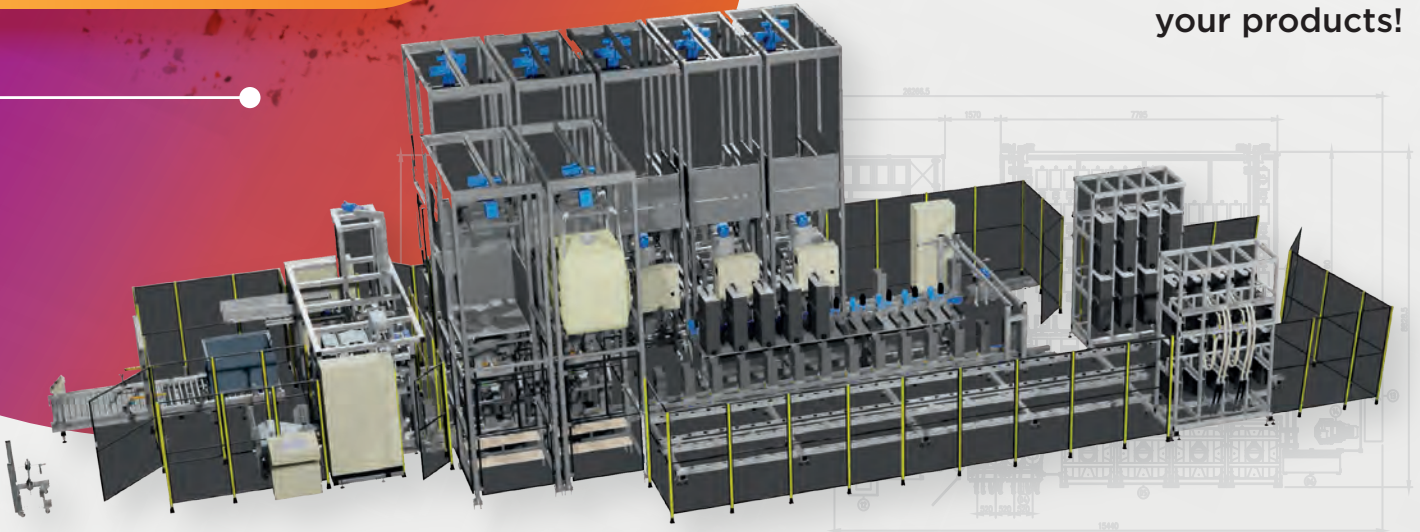
# AUTOMATIC DOSING SYSTEM

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IN ITALY**

**FOR POWDERS  
AND LIQUIDS**

We are the **FIRST** company  
to dose automatically  
your products!



**USER FRIENDLY**



**TRACEABILITY**



**ECO SUSTAINABILITY**



**RELIABILITY**



**ACCURACY**

**We Make  
the Difference**

# THE HIGHEST SORTING EFFICIENCY ON UNWASHED POTATOES: discover Raynbow by Raytec Vision



One of the most meaningful steps forward is the high efficiency in the sorting of **unwashed potatoes** with **Raynbow** optical sorter. Raynbow was launched for the first time in the market in 2001 when Raytec was established, and it soon proved to be very effective for the tomato industry.

The technology of Raynbow has been so successful in tomato farms, that nowadays the largest tomato producers are using a Raynbow machine for tomato sorting. Rapidly, this machine was also applied to tubers like potatoes, onions, carrots, and fruits like

apples, cherries, olives, and plums. It is an optical sorting machine with high-resolution sensors that examine the product using the "high-speed double vision" system which analyses 100% of the surface of each product, and it is therefore particularly adapted for "rolling" products.

In 2021, the growing partnership with some of the largest potato producers allowed Raytec to perfect the application on unwashed potatoes, improving the machine's performance. Raynbow is able to discard **stones, soil clods, and green potatoes while being able**

**to identify potatoes covered with soil.** "The success on unwashed potatoes has been so great - explains Gianluca Simonelli - that our client Felbermaier has become our brand ambassador, opening up important opportunities in the largest potato-producing countries". Hans Felbermaier, the owner of a family-run company based in Bayern, enthusiastically participated in a video listing all the benefits of installing Raynbow for his production.

Not only accuracy but money-saving (due to the reduced number of manual sorting personnel), and well-structured

*“Raytec Vision, an Italian company specialized in optical sorters, has closed positively 2021” says Gianluca Simonelli, sales director, who proudly talks about the latest important innovations in technology applied to food safety and quality.*

customer care. “The installation took only one day - says Felbermaier - and thanks to the remote connection, it is always easy to contact technicians and solve problems”. Each sorting machine has its own user-friendly interface to monitor the machine’s performances and analyze waste in real-time.

Raytec introduced also the Rainbow R-270 at the 2021 edition of Interpomm in Belgium. This sorter is designed to fit high capacities (up

to 55 t/h), and the 3WAY configuration drastically reduces waste by optimizing production and differentiating between A and B-series waste that can be collected and repurposed for other uses (such as becoming part

of animal feed). By autumn 2022, a 2.4-meter wide version will also be available to serve customers who need large hourly capacities. 🏢

[www.raytecvision.com](http://www.raytecvision.com)



# W.B.L. SYSTEMS: the re-birth of the washing, drying and conditioning process

*What can help a winery improve its process?*

*How can costs be optimised in a winery?*

*How can you work better and produce more without necessarily having to invest in buildings or water drainage systems?*

*How can you do without compressed air?*

*How can you be greener?*



Washing-drying LAB12+ conditioning CAD-8\_3000 combined synchroblock

**L**AB-X and CAD-X, with their patented systems, completely revolutionise the work in the winery.

The **External washer/dryer with single combined carousel mod. LAB-X** opens the way to new washing concepts. It is the first machine in the world to enclose in a unique carousel the washing and dry-

ing phases, with a consequent drastic reduction of the occupied space.

- 1 - Most compact machine in the world**
- 2 - Active surround system** Automatic shape recognition brush system.
- 3 - Automatic brush wear compensation** The "tactile" washing device requires the brushes to ad-

vance towards the bottle up to the contact, recognizing the shape. Wear is compensated.

- 4 - Green washing system** Water is dosed on the bottle in a smart way only where and when it is needed in a closed station.
- 5 - 3-Axes washing system** Improved cleaning efficiency.
- 6 - Totally self-lubricating** No greasing points.



conditioning CAD-8\_3000

- 7 - Universal drying** Innovative drying air distribution system.
- 8 - No compressed air on the whole range**
- 9 - Water off system** Injection system which recognizes the absence of the bottle and stops the dosage of water in the corresponding empty station

**CAD-X radiant dynamic conditioner** is synonymous with transformation and progress compared to

traditional technology. It revolutionises the bottle conditioning process. It is a radiant conditioner with dynamic accumulation. Thanks to this device, water is totally eliminated in the process, consequently the system is perfectly cleaned and free from contaminations.

- 1 - "no water" device**
- 2 - significantly reduced dimensions**
- 3 - advanced catalytic tech-**

**nology** System with an efficiency of 98,5 % as all energy is transformed without dispersion. No more plant engineering charged to the customer.

- 4 - Stationary treatment** First machine in the world with stationary product treatment.
- 5 - "FIFO" device FIFO** ("first in first out") FIFO managed machine which guarantees traceability by batch and the staying time during the process. Uniformity of treatment.
- 6 - "Contactless" filling** Bottles feeding method takes place without contact between the bottles. Relative noise is eliminated as well as the format change.

For more information and to discover the range of products visit the site. 

[www.wblsystems.com](http://www.wblsystems.com)



Washing-drying LAB12



# PNEUMAX: components and systems for industrial automation

*Pneumatic components, electric actuation and fluid control*

**F**ounded 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 25 commercial and production companies with over 730 employees worldwide.

The international network includes 9 branches in Italy, 8 branches in Euro-

pe 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 ISO 9001: 2015, ISO 14001:2015 and ISO 45001: 2018.

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, air treatment, materials handling, vacuum), with electrical actuation and com-







# Food & Beverage solutions

Technology and Competence to add value in your application

In Pneumax we manufacture components and systems for automation in the food and packaging sector by combining pneumatic technology, electric actuation and fluid control. A wide range of components in stainless steel, aluminum and technopolymer allows us to offer the best solution for each application, as unique and special as our customers.



 Italian Excellence

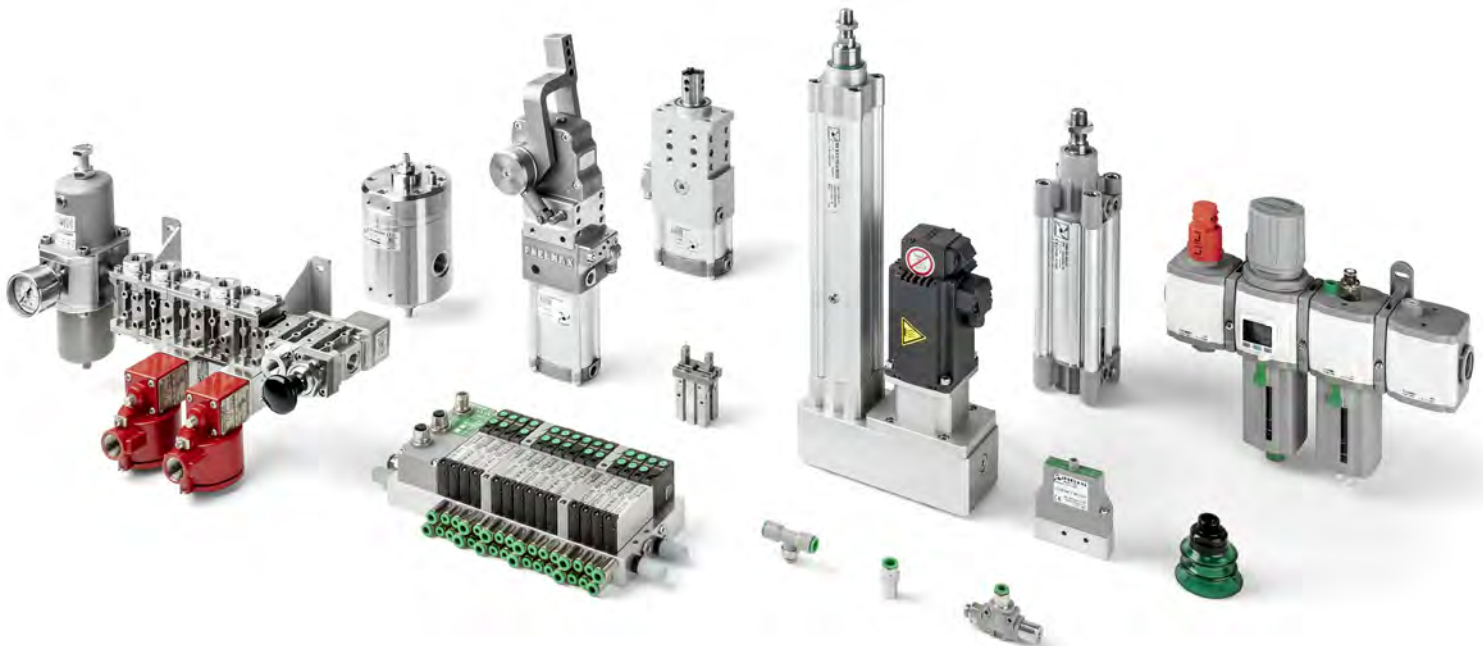
## FCM Fittings Food Contact Material

Compliant with MOCA and NSF/ANSI 169 standards



COMPONENT





ponents for liquid and gaseous fluid control and offering solutions made from different materials ranging from stainless steel to engineering polymers or from aluminium to brass.

The organisational structure designed to maximise flexibility and the use of cutting-edge technologies 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 capable of meeting the requirements of Industry 4.0, from component interconnection to the ability to remotely control and manage component performance, without ever neglecting aspects such as optimising consumption.

**FCM FITTINGS**


**Food Contact Material**

The food & beverage and food packaging sectors are two of the sectors for which the company offers

**Pneumax Automation LLC**  
A Pneumax Group Company

128 Durkee Lane  
Dallas NC, USA

specific products such as the entire range of stainless steel components (cylinders, valves and air system units and fittings) or FCM fittings which, in addition to ensuring reliability and high performance, comply with relevant international standards such as NSF/ANSFI 169 and MOCA. FCM fittings are suitable for con-

tact 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. 

[www.pneumaxgroup.com](http://www.pneumaxgroup.com)



# The choice of being unique: MINI MOTOR going all out with DBS

*DBS is the line of uniquely designed brushless gear motors with built-in drive, made for ultra-high performance*

**A**n excellent machine is made of excellent components. Mini Motor knows this all too well and for 55 years it has been bringing to customers extremely efficient gear motors on the cutting edge of technology. The Reggio Emilia-based company has always chosen to design custom solutions for those complex and difficult applications where a standard product just won't do. This choice developed into excellence and today Mini Motor electric gear motors stand out for their compact size, speed, and resistance under any condition.

Up there with the top products we find the family of DBS brushless gear motors with built-in drive system where all the elements - motor, driver and reduction gear (where fitted) - are packaged in a single product of indisputable excellence.

The 4096-PPR multi-turn absolute encoder offers maximum freedom in terms of speed and position adjustment, maintaining the distance even when the motor is off. The great innovation about DBS is the presence of an accelerometer that is able to detect gear motor vibrations.

The accelerometer plus the other sensors that detect temperature, current and speed are able to identify anomalies within the sensors themselves or from the machine systems connected to them, implementing real predictive maintenance.

What's more, with DBS several motors can be connected in a cascade system via the main communication protocols: EtherCAT, Ethernet/IP, Powerlink, Modbus, PROFINET I/O and CANOpen.

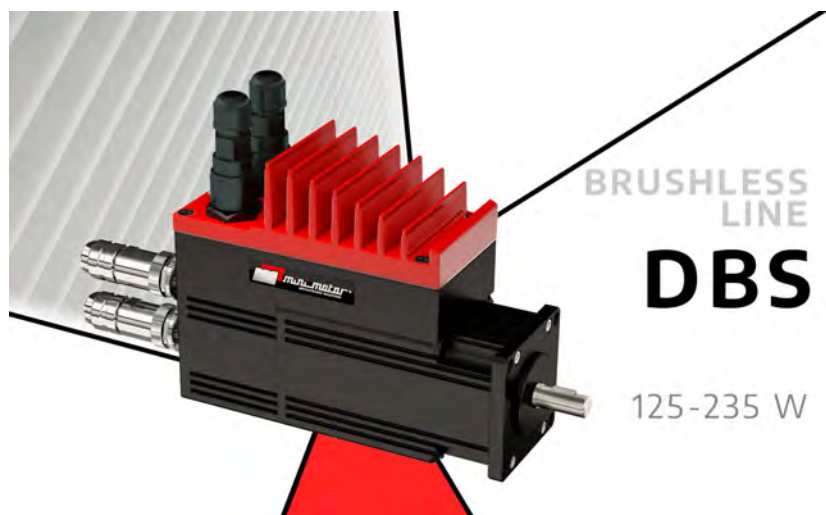
The wireless protocol was recently added to these 6 fieldbuses. Mini

Motor has in fact patented the first all-wireless gear motor in the market powered by an inductive charging battery.

This means no drag chains, which translates into lower machine costs and greater freedom of movement.

**FOOD &  
BEVERAGE**  
IP67

**ACF**  
31 W  
three-phase



**BRUSHLESS  
LINE**  
**DBS**

125-235 W

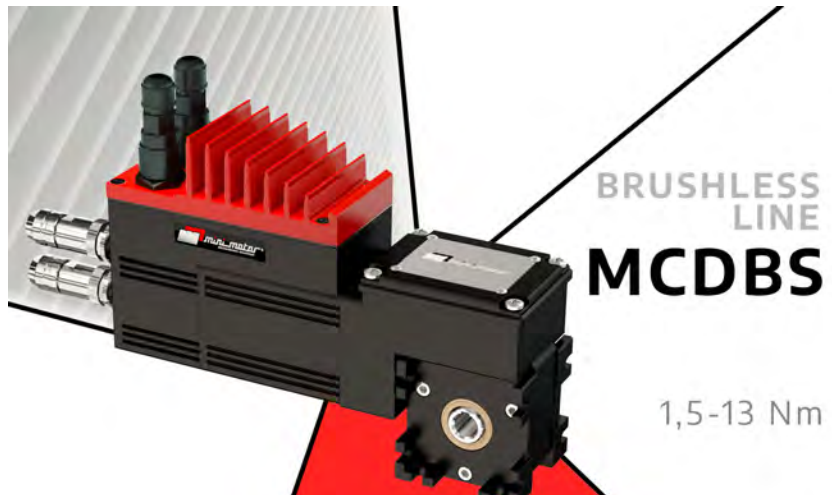
**A character of steel the one of the Clean Series!**

For demanding sectors like the food&beverage and pharmaceuticals industries, Mini Motor has designed also its SS series of motors that combine a small footprint with the superior specifications of Aisi 304 and Aisi 316L stainless steel: resistance to corrosion, compact surface, lack of porosity, high bacterial removal performance, and low bacterial retention.

It complies with IP69K protection rating and is ideal for aggressive environments or applications demanding high standards of hygiene.

**About DR Series**

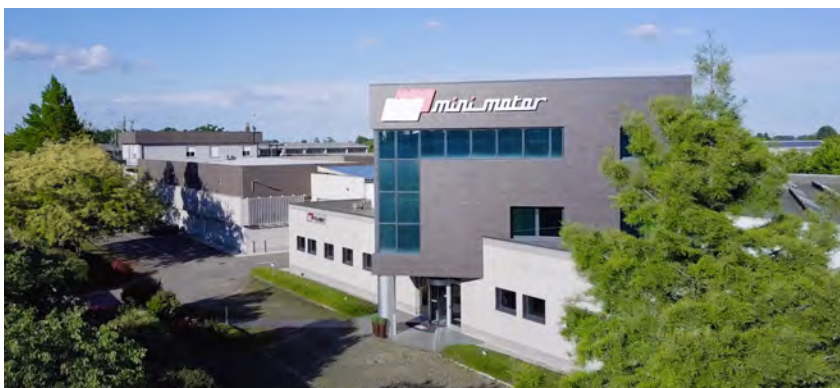
The **DR series** represents the next step in classic single phase and three phase-motors. Complete with integrated drive, connectivity with the most common field buses, and a new design reducing the footprint and optimising the use of space, they represent the perfect integration of drive, motor and gear unit, lowering energy consumption. The great capacity for **customisation** and extremely high **quality** at **competitive prices** are guaranteed by each product. For all applications demanding an IP67-rated seal, Mini Motor has designed a digital concept drive capable of adjusting the speed of motors and gear motors using sensorless vectorial control: the DRF. It is built according to the guidelines issued by the European Hygienic Engineering & Design Group, which can be applied to ACF, MCF, PCF and PAF three-phase asynchronous motors up to 270 Watt. The technical features of the DRF are



ideal for use in the dairy, bakery, wine-making, fruit and vegetable processing, and oil sectors, as well as the Food industry in general. The Reggio

Emilia-based company is the benchmark in the Food world not only for the quality of its products but also for its fast and dependable after-sales support service. Supported by an online ticketing system, a qualified team of mechanical and mechatronic engineers is ready to answer questions and provide assistance within 24 hours.

Mini Motor wants customers to get service as excellent as the quality of its motors, an unshakable commitment that is at the heart of the company's philosophy. 🏛️



[www.minimotor.com](http://www.minimotor.com)



# CIBUSTEC FORUM

25|26 OCT. 2022 | PARMA | ITALY

## EXHIBITION & CONFERENCE

ON FOOD & BEVERAGE TECHNOLOGIES TRENDS

Powered by



Cibus Tec Forum will offer an **ALL-IN-ONE HALL** with:

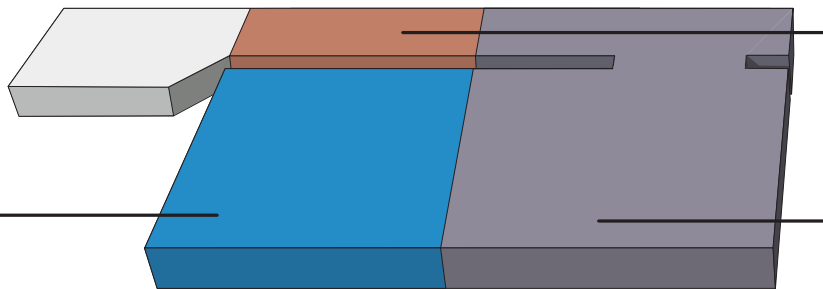
A **Plenary Hall** with four main conferences:

**October 25, 2022**

- **10 AM - 1 PM** - Processing and Packaging between digitalization and sustainability
- **2.30 PM - 4.30 PM** - Future trends in Food Safety

**October 26, 2022**

- **10 AM - 1 PM** - Supply chain and sustainability: from farm to fork
- **2.30 PM - 4.30 PM** - Innovative materials for a circular economy



**Five Vertical Showcase Sessions Rooms**

with highly specialized workshops dedicated to specific food sectors and future trends

**Exhibition Area**

with pioneering technologies, innovations, startups and live demos zones

**9 FUTURE FOOD&BEVERAGE TRENDS**  
**25 TOP LEVEL CONFERENCES**  
**500 FOOD TEC INNOVATORS**  
**ENDLESS INSPIRATIONS**

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# CIBUS TEC FORUM 2022, Exhibition & Conference on Food & Beverage Technologies Trends

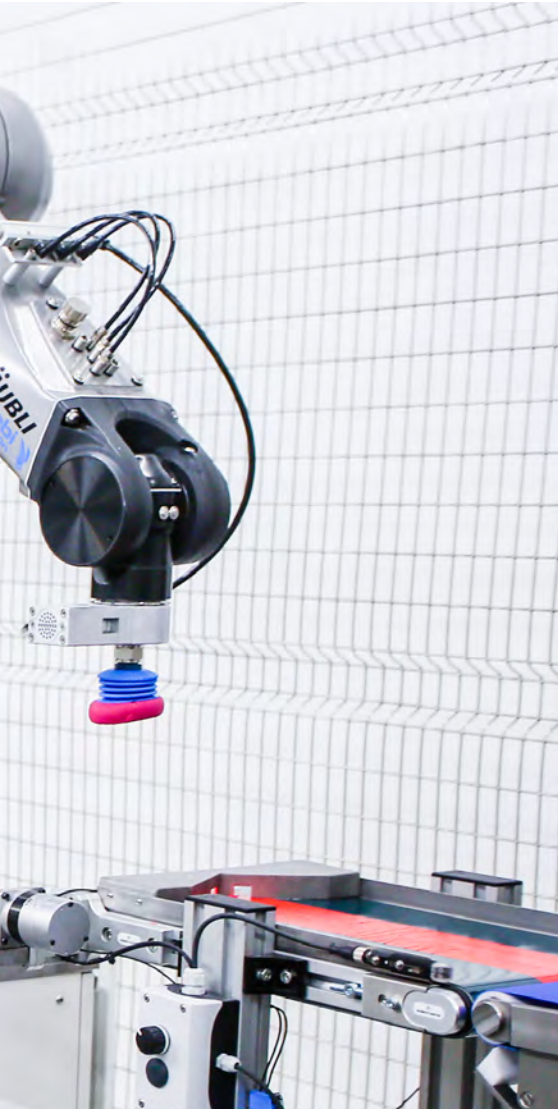


Cibus Tec Forum will offer an **ALL-IN-ONE**

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  - 2.30 PM - 4.30 PM - Innovative materials for a circular economy

# Innovations, business and networking in the heart of the Italian Food Valley



**CIBUS<sup>TEC</sup>**  
**FORUM**  
25|26 OCT. 2022 | PARMA | ITALY

**N**ow more than ever, food and beverage challenges are extraordinary. Food manufacturers are focused on adapting to changing consumer demands while suppliers become partners able to understand the future needs and offer technological innovations. Cibus Tec Forum, the new Exhibition & Conference on Food & Beverage Technologies Trends that will run in Parma (Italy) on October 25/26, 2022, acts as enhancement element of the current situation.

Cibus Tec Forum will offer, in just two days, the discovery of the most innovative solutions and the most influential trends that will impact the way of producing, packaging and distributing. The event will take place in an all-in-one hall with an innovative exhibition area, a plenary hall with four top level conferences and five thematic rooms

with highly specialized seminars.

Our four top level conferences will discuss about:

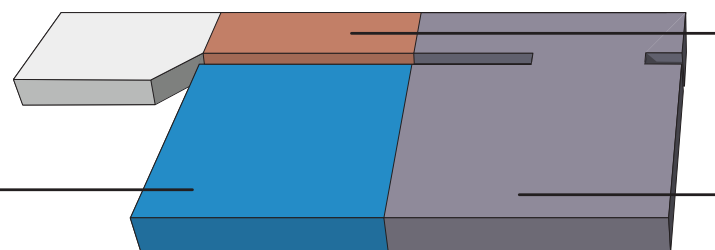
## **Digitalization and sustainability**

Pandemic has raised awareness on food production, highlighting sustainability, for which digitalization plays a fundamental role. New technologies and Industry 4.0 are creating a wide range of opportunities and challenges for food producers. Topics related to technologies with the potential to transform production plants in a sustainable way will be explored. The main international research centers, food industries and retailers will join forces at our conference: "Processing and packaging between digitalization and sustainability" (October 25 / 10.00-13.00)

## **Food Safety**

European and US organizations, together with key players of the food industry and retail, will be at Cibus Tec Forum to discuss and provide us with the future vision on food safety. According to the World Health Organization, over 200 diseases are spread through food, and 1 in 10 people get sick each year from eating contaminated food. Healthy food safety management can help prevent much of the burden that accompanies unsafe food. Conference: "Future trends in Food Safety" (October 25 / 14.30-16.30)

will  
**THE HALL** with:



**Five Vertical Showcase Sessions Rooms**  
with highly specialized workshops dedicated to specific food sectors and future trends

**Exhibition Area**  
with pioneering technologies, innovations, startups and live demos zones



**From farm to fork**

The European Green Deal sets out how to make Europe the first climate-neutral continent by 2050. It maps a new, sustainable and inclusive growth strategy to boost the economy, improve people’s health and quality of life, care for nature, and leave no one behind. The Farm to Fork Strategy is at the heart of the Green Deal. Strengthening the sustainability of our food systems can help further build the reputation of businesses and products, create shareholder value, improve working conditions, attract employees and investors, and confer competitive advantage, productivity gains and reduced costs for companies. Conference: “Supply chain and sustainability: from farm to fork” (October 26 / 10.00-13.00)

**Packaging**

Packaging sector is experiencing an ever-growing evolution, driven above all by the theme of sustainability. According to a research published by Market Watch, the green packaging sector will increase globally by 154

billion dollars by 2028 (+ 60%) reaching a turnover of more than 413 billion. Attention to green is also increasingly important in Italy: from a survey by the GS1 Italy Observatory it emerges that the share of 100% recyclable packs is currently only 6.2%, but is destined to grow by double digits, in the next years. Conference: “Innovative materials for a circular economy” (October 26 / 14.30-16.30)

Cibus Tec Forum, with its perfect mix of the most progressive technology companies, key players in the food industry and most authoritative speakers from the national and international scene, will be a unique moment of sharing, business and networking for building a new global food and beverage strategy. 🏛️


[www.cibustecforum.com](http://www.cibustecforum.com)





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# IIDE 2022: DRIVE YOUR BUSINESS TO SUCCESS!

*India International Dairy Expo (IIDE) is back with the special edition from 13-15 April 2022 at Bombay Exhibition Center, Mumbai*



**A**fter hiatus of 3 years, it is a welcome news for the entire dairy industry that India International Dairy Expo (IIDE) is making a stronger comeback with encouraging response from the dairy fraternity. Lot of changes in the dairy technology are observed and more are anticipated post pandemic as the situation is coming to normalcy.

Indian Dairy Association (IDA) West Zone is associated with IIDE and would be hosting a technical seminar on theme "Ideate. Innovate. Suc-

ceed". The agenda will include topics like - New Technologies & Innovations in Dairy, Blockchain Technology & Drones for Dairy Industry, and Offerings by Dairy Research Institutes and Industry Requirements. Dairy industry is very much eager to witness this special edition and looking forward to solutions. IIDE offers an ideal business platform to dairy industry solution providers for networking and display services and solutions first-hand in a LIVE environment alongside key decision makers from the dairy manufacturing and farming sectors.


At IIDE 2022, network with senior professionals and generate unlimited business opportunities in a safe business environment. Connect with the right buyers and learn key industry trends while staying ahead of your competition.

Consumers are increasingly concerned about the quality, safety, and hygiene of food products, including dairy. This is expected to boost the growth of the value-added dairy segment within India's organised dairy market. There is growing change in

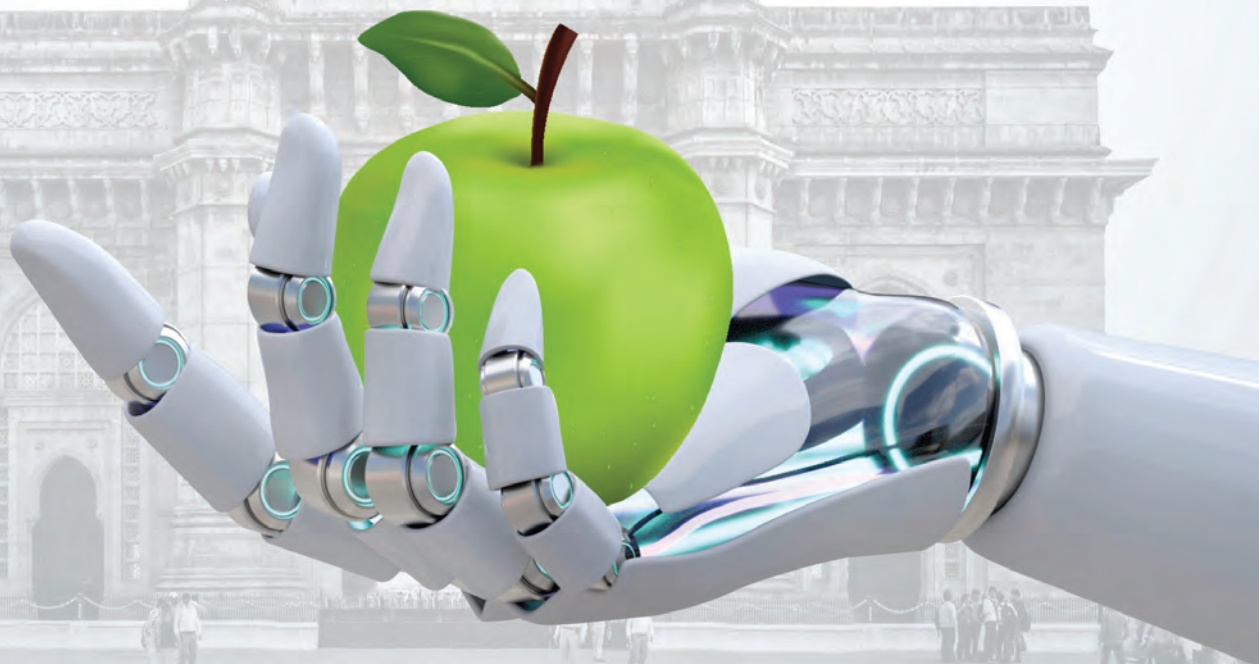
# International supplier fair for the food and drink industry



**14-16th September 2022**

 **Bombay Exhibition Center,  
Mumbai, India**


**Exhibitor Bookings OPEN**




**Avail the early bird offer now!**

**Early Bird deadline 31.05.2022**

For more information:

 [sales@koelnmesse-india.com](mailto:sales@koelnmesse-india.com)

 +91-22-62044800

 [www.anutecindia.com](http://www.anutecindia.com)

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preference from loose products to packaged products. Categories like liquid milk, curd, paneer, and sweets have experienced this trend, which mainly benefits the organised sector. Companies with a strong retail penetration have realised immediate benefits. However, companies with a commodity and business-to-business focus will desperately push toward consumer-focused in the coming years. As one of the world's largest-volume dairy markets, India is fertile ground for the international brands. Product innovations are likely to help the acceleration of India's formal dairy market. This, in turn, should

bring about favourable government policies and promote industry consolidation. Specialist agricultural bank Rabobank believes the time has come for global players to start investigating the market's potential.

### The Trade Fair

In the purview of the growing dairy market in India and increasing requirements for the new technology, to provide a platform for networking, knowledge sharing and business growth Koelnmesse YA Trade-fair Pvt. Ltd., an Indian subsidiary of Koelnmesse GmbH, Germany and Indian Dairy Association – West

Zone are organising the special edition of India International Dairy Expo (IIDE) 2022. The current edition of the comprehensive dairy and dairy technology event is being organised from 13-15 April 2022 at Hall 1, Bombay Exhibition Centre, Mumbai, India.

India International Dairy Expo (IIDE) has become a brand to reckon with in the dairy and dairy technology exhibition and knowledge forum. It has gained the status of the landmark trade fair in the dairy fraternity for the dairy professionals not only in India but also in the neighbouring countries spanning the canvas of dairy indus-



SALONE  
INTERNAZIONALE  
MACCHINE PER  
ENOLOGIA E  
IMBOTTIGLIAMENTO

**SIMEI**



**LEADER IN WINE & BEVERAGE TECHNOLOGY**

ORGANIZED BY



UNIONE ITALIANA VINI



**29<sup>a</sup> EDIZIONE**

**15-18 novembre 2022**  
**Fiera Milano (Rho)**

info@simei.it / simei.it

**Koelnmesse - industry trade fairs for the food technology sector**

Koelnmesse is an international leader in organising trade fairs in the field of food and beverage processing. Anuga FoodTec and ProSweets Cologne are established, world-leading trade fairs, hosted in Cologne/Germany. In addition to the events at its Cologne headquarters, Koelnmesse also stages further food technology trade fairs with different sector specific areas of focus and content in key markets across the world, including India, Italy and Colombia. These global activities enable Koelnmesse to offer its customers bespoke events and leading regional trade fairs in a variety of markets, thus creating the foundation for sustainable international business. Koelnmesse is also ideally positioned in the field of food and beverages with its leading international trade fairs Anuga and ISM and its global network of satellite events.

try from veterinary, dairy farming and farm equipment's, plant & machinery, processing, ingredients, packaging equipment's, refrigeration, automations and logistics, milk & milk products and allied services. The visitor's portfolio of IIDE include the Dairy Products Manufacturers, Co-operatives, Dairy Farms, Dairy Professionals, Scientists, Farmers, Government Agencies & Policy makers. We have received encouraging response from both exhibitors and visitors for the upcoming special edition of the show following the success year on year and being back in the physical format of the show after 3 years much stronger and better for the forthcoming edition.

Keeping the momentum of success, the special edition of IIDE 2022 has received a very good response from both national as well as international companies as participants, with exhibitors from United States, United Kingdom, France, Germany, Italy, Lithuania, Switzerland, Cyprus, and The Netherlands apart from India. Leading suppliers of dairy farm technologies, processing & packaging technologies, cold chain & distribution solution suppliers have already confirmed their presence in the exhibition boosting the portfolio of brands across the segments in dairy industry.

**Concurrent Seminar**

Indian Dairy Association (IDA), West


Zone is hosting a technical seminar with theme - Ideate. Innovate. Succeed on the first day of the India International Dairy Show (IIDE) 13 April 2022. Panel discussions and sessions of this technical seminar will be addressed by top dairy and dairy technology professionals and will be attended by the notable names in the entire dairy fraternity including the leading technology suppliers, Dairy cooperatives, Professionals, Farmers, Technocrats and others. Stalwarts from the dairy fraternity will attend the seminar including top professionals from IDA. This Seminar will offer an opportunity to all the dairy professionals to get acquainted with the latest ideas and innovations in milk processing, packaging, distribution, milk products, animal breeding, and nutrition. Important topics would be discussed during the interactive panels like new technologies and innovations in dairy, blockchain technology, and drones for the dairy industry to have the most updated knowledge dissemination. 🏛️

[www.iideindia.com](http://www.iideindia.com)



# EXHIBITIONS 2022-2023

## PROSWEETS

31/01-02/02/2022 

COLOGNE

Fair for the sweets and snacks industry.

## mcTER

24/02/2022 

Exhibition on energy efficiency.

## INTERSICOP

19-22/02/2022 

MADRID

Fair for bakery, pastry, ice cream, coffee.

## SIGEP

12-16/03/2022 

RIMINI

Fair for bakery, pastry, ice cream, coffee.

## BEER&FOOD ATTRACTION

27-30/03/2022 

RIMINI

Fair for beers, drinks, food and trends.

## mcT ALIMENTARE

31/03/2022 

VERONA

Fair on technology for the food&bev industry.

## FRUIT LOGISTICA

05-07/04/2022 

BERLIN

Fair for fruit and vegetables.

## VINITALY

10-13/04/2022 

VERONA

International wine & spirits exhibition.

## ANUGA FOODTEC

26-29/04/2022 

COLOGNE

Fair on food and beverage technology.

## PROWEIN

15-17/05/2022 

DUSSELDORF

International wine & spirits exhibition.

## COSMOPROF

28/04-02/05/2022 

BOLOGNA

Fair for the cosmetic production chain.

## CIBUS

03-06/05/2022 

PARMA

Fair of food product.

## IPACK-IMA

03-06/05/2022 

MILAN

Exhibition for the packaging industry.

## MACFRUT

04-06/05/2022 

RIMINI

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

## MIDDLE EAST 2022/23

### GULFOOD

13-17/02/2022 

DUBAI

Fair for food and hospitality.

### GASTROPAN

03-05/04/2022 

ARAD

Fair for the bakery and confectionery.

### HOSPITALITY QATAR

21-23/06//2022 

DOHA

Fair of Hospitality and HORECA.

### DJAZAGRO

30/05-02/06/2022 

ALGERS

Fair for companies of the agro-food sector.

### IRAN FOOD BEV TEC

07-10/06/2022 

TEHRAN

Fair for food, beverage&packaging technology.

### PROPAK ASIA

15-18/06/2022 

BANGKOK

Fair for packaging, bakery, pastry.

### ANUTEC

14-16/09/2022 

MUMBAI

Fair for the food&beverage industry.

### PACPROCESS FOOD PEX

23-25/11/2022 

MUMBAI

Fair for product from packaging.

### WOP DUBAI

22-24/11/2022 

DUBAI

Fair for for fruits and vegetables.

### PROPAK VIETNAM

09-11/11/2022 

SAIGON

Fair for packaging, bakery, pastry.

### GULFOOD MANUFACTURING

08-10/11/2022 

DUBAI

Fair for packaging and plants.

### GULFHOST

08-10/11/2022 

DUBAI

Fair of hospitality.

### GULFOOD

20-24/02/2023 

DUBAI

Fair for food and hospitality.

# EXHIBITIONS 2022-2023

## SPS/IPC DRIVES/ITALIA

24-26/05/2022 

PARMA

Fair for industrial automation sector.

## HISPACK

24-27/05/2022 

BARCELONA

Technology fair for packaging.

## MECSPE

09-11/06/2022 

BOLOGNA

Fair for the manufacturing industry.

## LATINPACK

29-30/06/2022 

SANTIAGO CHILE

International packaging trade fair.

## FISPAL

21-24/06/2022 

SÃO PAULO

Fair for product from packaging.

## DRINKTEC

12-16/09/2022 

MONACO

Fair for the beverage, liquid food industry.

## FACHPACK

27-29/09/2022 

NUREMBERG

International packaging trade fair.

## POWTECH

27-29/09/2022 

NUREMBERG

The trade fair for powder processing.

## SAVE

26-27/10/2022 

VERONA

Fair for automation, instrumentation, sensors.

## mcTER COGENERAZIONE

23/06- 26/10/2022 

MILAN

Exhibition for cogeneration.

## SIAL

15-19/10/2022 

PARIS

Fair on food products.

## SUDBACK

22-25/10/2022

STUTTART

Fair for bakery and confectionery.

## CIBUS TEC FORUM

25-26/10/2022 

PARMA

Exhibition & Conference on Food & Beverage Technologies Trends.

## SIMEI

15-18/11/2022 

MILAN

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

## ALL4PACK

21-24/11/2022 

PARIS

Exhibition about packaging technology.

## INTERPACK

04-10/05/2023 

DÜSSELDORF

Technology focused on packaging, bakery, pastry technology.

## TUTTOFOOD

08-11/05/2023 

MILAN

Fair B2B show to food & beverage.

## HOST

13-17/10/2023 

MILAN

Fair for bakery production and for the hospitality.

## IBA

22-26/10/2023 

MONACO

Fair for the bakery and confectionery industry.

## CIBUS TEC

24-27/10/2023 

PARMA

Exhibition & Conference on Food & Beverage Technologies Trends.

## BRAU BEVIALE

14-16/11/2023 

NUREMBERG

Fair of production of beer and soft drinks.

## EAST MARKETS 2022/23

### BEVIALE MOSCOW

29-31/03/2022 

MOSCOW

International trade fair for the beverage industry.

### UPAKOVKA

24-27/01/2023 

MOSCOW

International packaging machinery exhibition.

### INPRODMASH

13-15/09/2022 

KIEV

International packaging machinery exhibition.

### BEVIALE MOSCOW

14-16/11/2023 

MOSCOW

International trade fair for the beverage industry.

### AGROPRODMASH

10-14/10/2022 

MOSCOW

Fair of machinery and equipment for agroindustrial industry.

### MODERN BAKERY

2023 

MOSCOW

Fair for bakery equipment and food ingredients.



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**ALBRIGI SRL**  
**13/15**

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di Grezzana - VR  
Italy

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**117-118**

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MI - Italy

**AMS FERRARI SRL**  
**IV COV**

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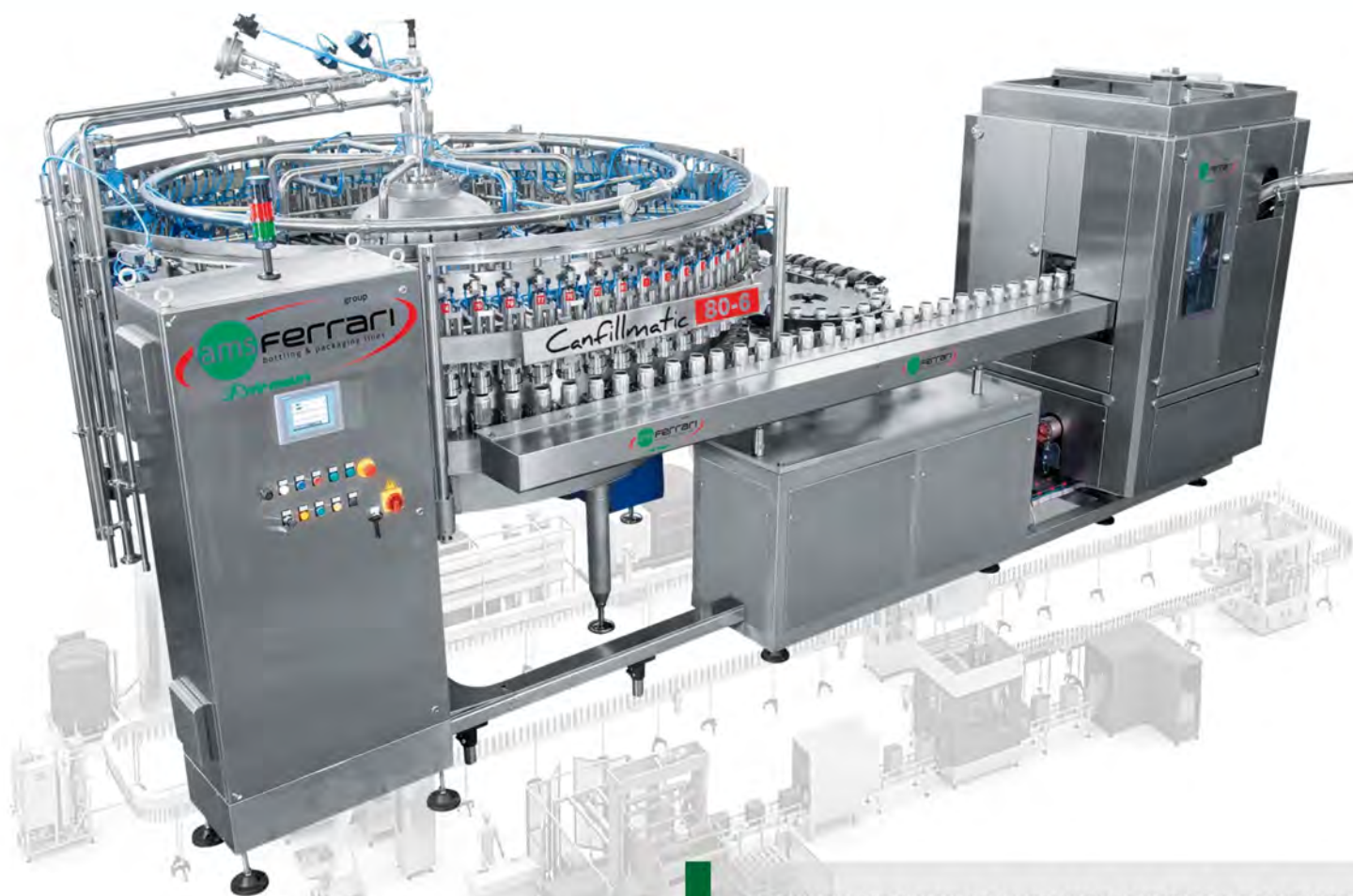


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