

SANTA VITTORIA
BLENDCOR
FONTE PLATINA

smid NOW

Magazine 2024/28

COMPACT PACKAGING MACHINES

TO HANDLE BOTH
CYLINDRICAL AND
SHAPED CONTAINERS

ENOBERG

1984-2024
A STORY OF
COURAGE & PASSION

ENVIRONMENTALLY FRIENDLY TECHNOLOGY

*Connected
with Nature*

IN THIS NUMBER



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EDITORIAL 2024/28

Innovate! The industrial world's challenge to be more competitive.

At SMI we are ready for Industry 5.0. After the announcement of the European Commission and the publication of the related document "Industry 5.0: towards a sustainable, human-centric and resilient European industry", there is more and more talk about this complex challenge for all companies that, in order to continue to be competitive, must adapt, evolve and embrace both the green and digital transition. It is in this context that the government plans renamed "Transition 5.0" have been placed; these are essential to support the world of production in their path of "green" and digital transformation. And this is where the crucial role of the latest generation systems supplied by SMI comes in, which, thanks to the digital intelligence with which they are equipped, can benefit from the SMYIOT platform to collect the machine operational and life cycle



data and subsequently verify, develop and enhance them. Enhancement made with a view towards sustainability and human-machine synergy and AI, all key elements of Industry 5.0. In this issue of SMI NOW, we are going to speak about the case histories of Santa Vittoria (Italy), Blendcor (South Africa) and Fonte Platina (Brazil). Their bottling and packaging plants meet the needs of environmental sustainability and are equipped with the most modern automation technologies in an IoT (Internet of Things) key. They, therefore, represent an intelligent and interconnected production system. Driven by the needs of a dynamic market, in search of increasingly efficient, eco-sustainable, flexible and compact processes, at SMI we do not stop studying, designing and implementing new packaging solutions; this has led to the creation of three new series of packaging machines with single-lane infeed and 90° product introduction (ASW, ACW and AFCW), which are particularly suitable for plants that need to handle both cylindrical and shaped containers in a wide variety of formats. You can find more information about all the latest innovations on the following pages. Thank you for your attention and I wish you pleasant reading.

Paolo Nava, President & CEO, SMI S.p.A.

sminow | magazine

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Product pictures in this issue are shown for reference only.



A LAND FULL OF CONTRASTS, WHERE THE ALPS EMBRACE THE CRYSTAL CLEAR WATERS OF THE SEA, WHERE THYME COEXISTS WITH MARITIME PINES AND WHERE CHAMOIS CONTEMPLATE THE SEA. THESE ARE THE LIGURIAN ALPS, A WONDER OF NATURE! IN THE HEART OF THIS PRISTINE TERRITORY FULL OF SURPRISES, 1,380 METERS ABOVE SEA LEVEL, FLOWS THE PURE WATER BOTTLED BY THE SANTA VITTORIA SRL COMPANY, AN EXCELLENCE OF LIGURIA, AS UNIQUE AS THE SURROUNDING AREA.

SANTA VITTORIA

➤ **WATER SECTOR**
SANTA VITTORIA
Pornassio (IM), Italy



COMPLETE 25,000 BPH LINE FOR PET BOTTLES CONSISTING OF:

- Integrated blowing-filling-capping system ECOBLOC® ERGON 10-80-15 KL HEVS
- DAT 10/10 accumulation system
- Secondary packaging system consisting of DV 500 ERGON divider, conveyor belts and SK 502 F ERGON shrink wrapper
- APS 3090 P SX ERGON palletising system



STATE-OF-THE-ART TECHNOLOGY MARRIES TRADITION

From 2000 to the present day, when Santa Vittoria was acquired by the Ballestra family of Bordighera (Imperia), the company has become an excellence of Liguria and the West. This is also due to the continual investments within the production departments, such as the recent project involving SMI and ENOBERG for the supply of a new complete 25,000 bph (0.5 L) line for bottling and packaging three different bottle formats PET (500 ml, 1500 ml and 2000 ml) of still and sparkling water, in cylindrical and square bottles. In this plant, advanced technology blends harmoniously with the company's tradition in all phases of the industrial process, from bottling to palletising, which are managed by automated systems to ensure products that are as safe and pure, as

the environment that created them.

The new investment was contemplated right down to the smallest detail, creating strong teamwork between Santa Vittoria and the designers at SMI and ENOBERG. The entire production process has been designed to keep every aspect of the bottling, packaging and handling of products within the line under constant control.

The new plant includes an integrated ECOBLOC® ERGON system, consisting of a latest generation SMI EBS 10 KL ERGON stretch-blow moulder and an electronic volumetric filling system ENOBERG 80-15 HEVS for natural and sparkling water. For the secondary packaging, Acqua Santa Vittoria chose an extremely compact solution, which meets the logistical needs of the plant and

adapts perfectly to the available space. It is a packaging system for the packaging of both cylindrical and square bottles that includes a DAT 10/10 accumulation table, a DV 500 ERGON divider, conveyor belts and an SK 502 F ERGON twin-lane shrink wrapper. The divider, belts and shrink wrapper work in sync, as if they were a single block, ensuring a very smooth packaging process. In addition, the adjustments of the belt guides are automatic, while the management of format changes is done directly from the machine panel, greatly simplifying the operation and maintenance of the entire line. The process ends with the tertiary packaging made in 800x1200 and 600x800 mm pallets by an automatic palletising system of the APS 3090 P ERGON series.



FOCUS ON SANTA VITTORIA



In the beating heart of the Ligurian Alps, the westernmost peak of the thousand-year-old peaks of Europe, a crossroads of dreamy natural contrasts, at 1,380 meters above sea level, where the air maintains a constant temperature of 6°C, there is an environment where time seems to have stopped, preserving the purity and original essence of its resources. We are in the municipality of Montegrosso Pian Latte, a jewel set in the province of Imperia, embraced by the protected area of the Regional Park. Here in impeccable environmental conditions, Acqua Santa Vittoria is born. The company of the same name was founded at the end of the eighties and the new owner (the Ballestra family of Bordighera) took over in 2000, with an investment of almost 4 million

euros to renew the plants, which today produce about 80 million bottles a year with a workforce of 18 employees.

The production of natural water in Liguria is not quantitatively as consistent as in the other Alpine plants, but it is of the highest quality, and Santa Vittoria is the main protagonist of this sector, an excellence that exports its products from Liguria abroad, even as far as China!

In its long history, Santa Vittoria has perfected an approach to production that combines quality and flexibility, thanks to an intricate network of underground pipelines that gently transport water directly from the source of Montegrosso Pian Latte to the productive heart of Pornassio.

The latter is located in a strategic position to reach the main motorways and the port of

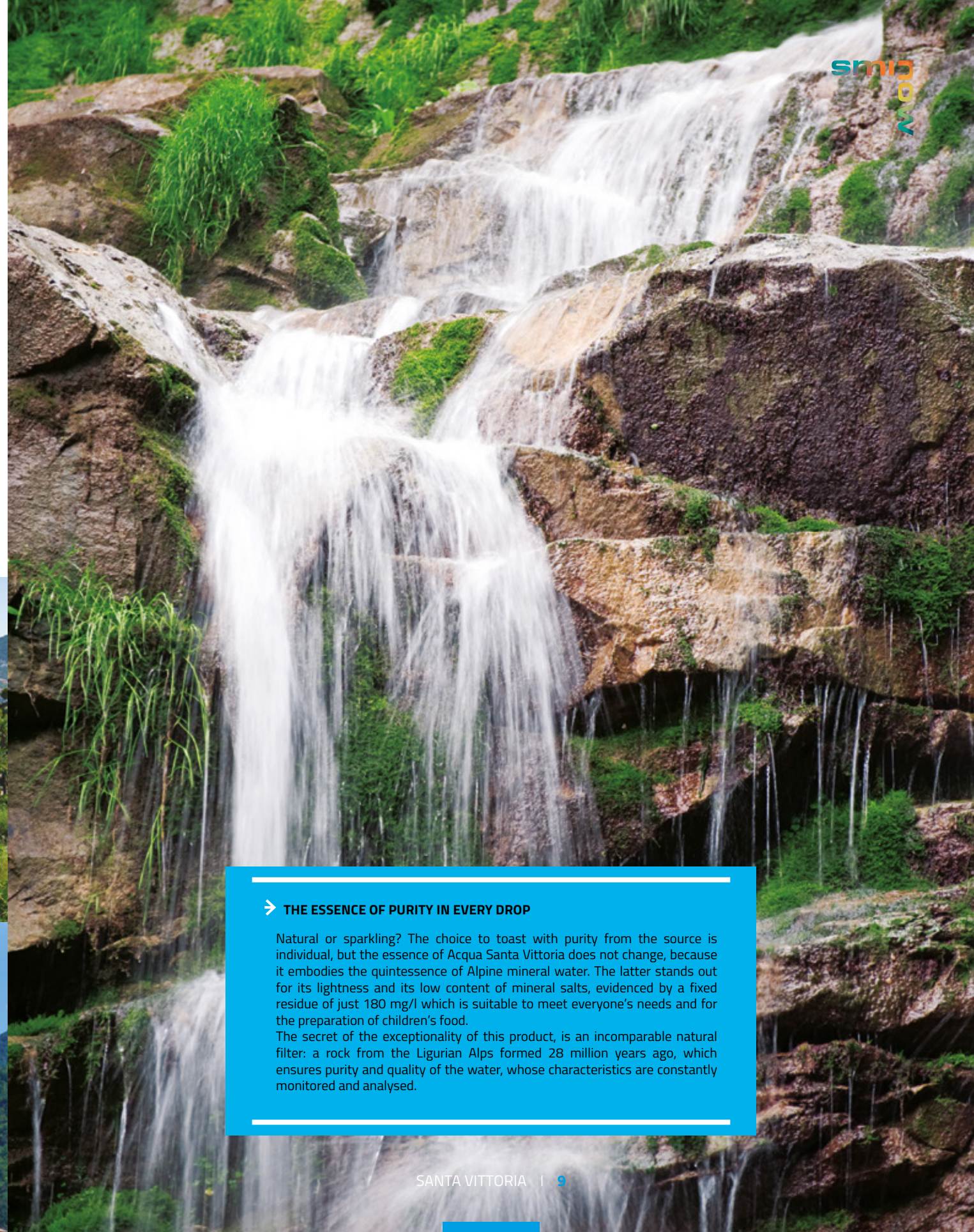
Genoa, a crucial hub for international trade. The commitment to sustainability is concrete and measurable, investing in renewable energy, such as the installation of a major photovoltaic system that allows the plant to maintain an ideal energy balance and minimise environmental impact with a significant reduction in CO₂ emissions. A further step towards the future has been made by using 30% recycled plastic in the production of PET bottles and by adopting 'Tethered Caps', a solution that fulfills sustainability strategies to avoid the dispersion of caps in the environment.

VALLE ARROSCIA: LIVING LAND FROM THE BEACHES TO THE MOUNTAIN HUTS!

From the beaches of Alassio, Albenga and Laigueglia, to the highest mountain in Liguria, passing through centuries-old villages and grandiose monuments, the Mediterranean landscape becomes alpine and leads into the civilisation of mountain huts and shepherds. The charm of the Arroscia Valley is encapsulated in the beauty of the landscapes with an alpine flavour, in the simplicity of the people and its "white cuisine" made of poor but nutritious ingredients. A territory that is equally affected by the warm and humid winds of the sea, the low temperatures and the rainfall typical of the Ligurian Alps.

Behind Albenga is the alluvial plain, dotted with greenhouses and crops, home to excellent products such as the violet artichoke, trumpet courgette, violet asparagus and ox heart tomato. Villanova and Ranzo historic strongholds defending the plains, are located in a crossing point between the plains and the mountains, famous for the Taggiasca olive and Pigato wine. The village of Vessalico is famous for the cultivation of the renowned garlic, while Pieve di Tecò, the capital of Arroscia, is the gateway to the Alps. On one side Rezzo, with its castle and the spectacular Arroscia waterfalls, on the other Pornassio, while Mendatica is the starting point to reach Monte Saccarello (2201

m), the highest peak in Liguria. On the border between Piedmont and Liguria, Pornassio lives a double life: Alpine in the north and Mediterranean in the south. Vineyards, olive groves and woods surround the mountain municipality with its many resources. It is the land of Ormeasco di Pornassio wine, known as "Dolcetto dei Saraceni", and of the pure water bottled by Santa Vittoria. An excellence of Liguria that, thanks to the eco-friendly use of the territory, has been able to preserve the characteristics that make it unique.



➔ THE ESSENCE OF PURITY IN EVERY DROP

Natural or sparkling? The choice to toast with purity from the source is individual, but the essence of Acqua Santa Vittoria does not change, because it embodies the quintessence of Alpine mineral water. The latter stands out for its lightness and its low content of mineral salts, evidenced by a fixed residue of just 180 mg/l which is suitable to meet everyone's needs and for the preparation of children's food.

The secret of the exceptionality of this product, is an incomparable natural filter: a rock from the Ligurian Alps formed 28 million years ago, which ensures purity and quality of the water, whose characteristics are constantly monitored and analysed.

SMI AND ENOBERG SOLUTIONS

PET CONTAINERS THAT ENHANCE PURITY AND LIGHTNESS

FOR THE EXCELLENCE OF LIGURIA AND THE WEST

For Western Liguria, the Santa Vittoria company represents a cutting-edge reality in the use of renewable sources, respecting the territory and its resources and a guarantee for the constant supply of the shelves of large-scale distribution. Over the years, this industrial reality has developed a flexible, efficient, quality and eco-sustainable production system, also thanks to the collaboration with strategic partners such as SMI and ENOBERG, which have recently supplied a new complete line for bottling and packaging cylindrical and square PET bottles of three different sizes (500 ml, 1500 ml and 2000 ml) at the maximum speed of 25,000 bottles/hour.

The entire bottling, packaging and distribution process was designed to ensure sustainability, efficiency, preservation of product quality and purity and optimal use of production space.

The new SMI and ENOBERG line makes use of the latest generation technological solutions, which allow the use of lighter plastic bottles, made with 30% recycled material.

The production of sparkling water accounts for about 70% of the total, which, in addition to Santa Vittoria branded water, also meets the large volumes required by the "private label" products of Lidl, the European giant of large-scale distribution, Coop and Conad.

The engineering project for the new Santa Vittoria line also involved the study of the PET containers produced by the SMI stretch-blow moulder and bottled by the ENOBERG filler.

The customer asked the SMI designers to revise the existing cylindrical bottle both aesthetically and functionally, especially for the handle section.

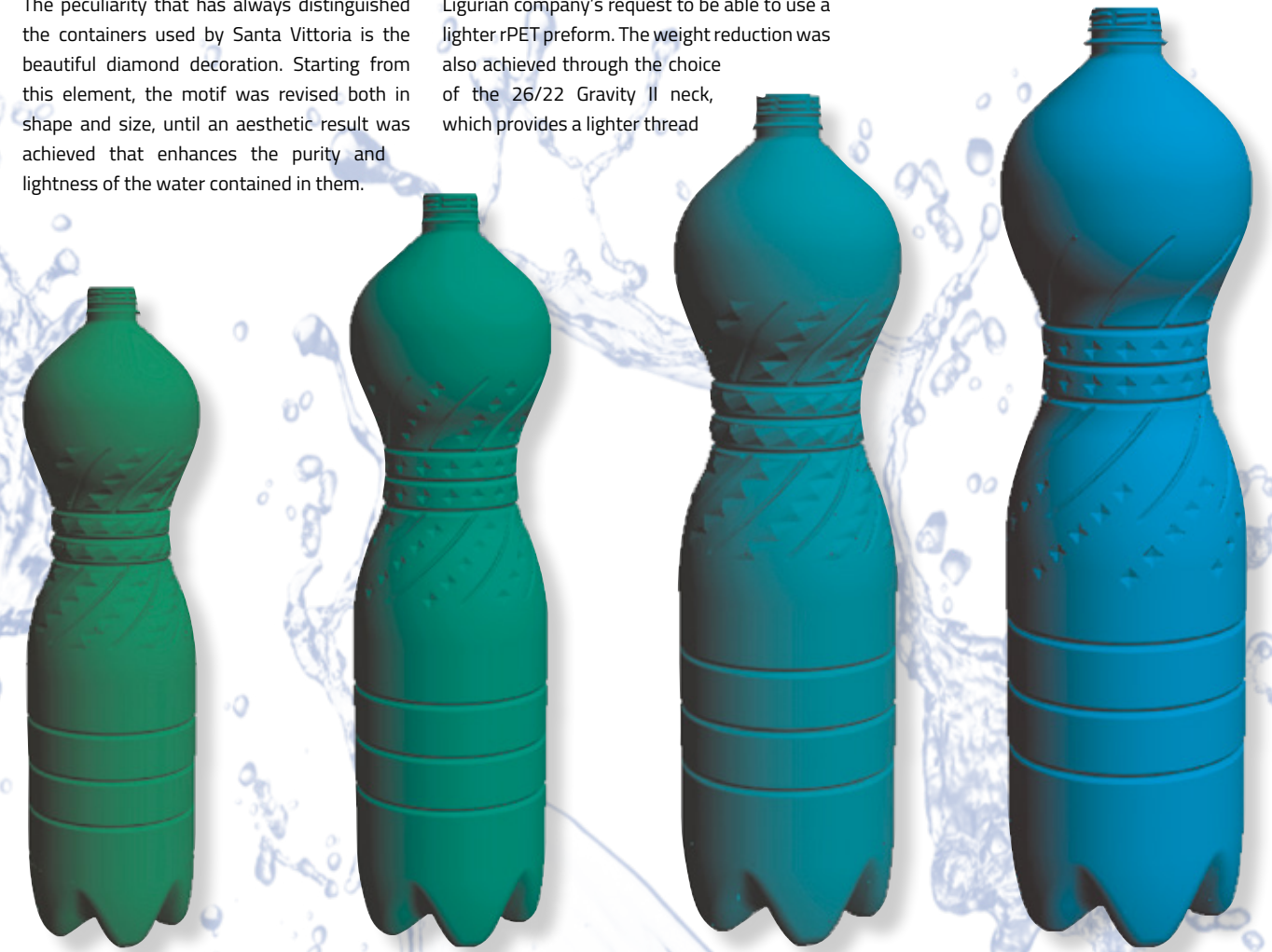
The format on which SMI staff focused for the development of the new design is the 1.5 L bottle, from which the smaller 0.5 L bottle is derived.

The peculiarity that has always distinguished the containers used by Santa Vittoria is the beautiful diamond decoration. Starting from this element, the motif was revised both in shape and size, until an aesthetic result was achieved that enhances the purity and lightness of the water contained in them.

The evolution of the study was marked by the close collaboration between SMI and Santa Vittoria, to the point of creating a customised version of the project with a suitable decoration and an adequate distribution of the same on the container. In addition, the development also led to the decoration becoming lighter and giving an end result of a very elegant, functional bottle, easily recognisable on the market.

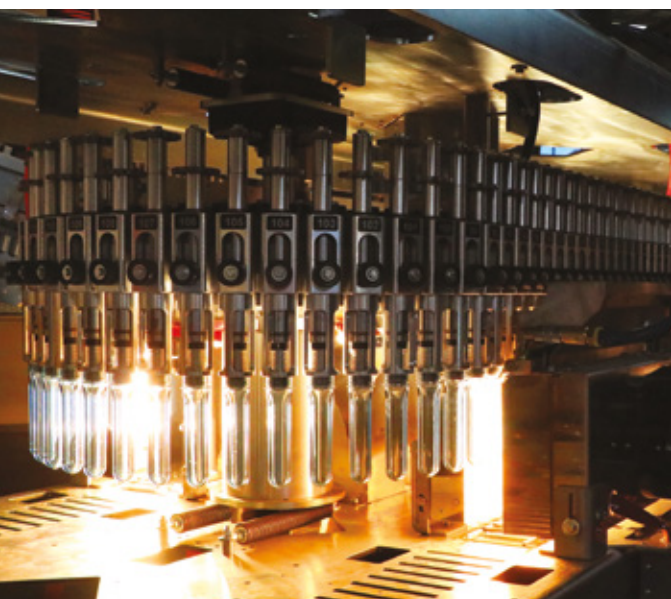
The performance of the container was also carefully analysed and improved, especially in the part of the handle, to respond to the Ligurian company's request to be able to use a lighter rPET preform. The weight reduction was also achieved through the choice of the 26/22 Gravity II neck, which provides a lighter thread

suitable for bottling carbonated products. Starting from all these aesthetic and functional assumptions, the SMI team began to develop the new "concept", maintaining the style of the existing bottle, but making changes to the position and shape of the handle and the bottom, optimising the shape and proportions of the latter, in order to be able to use lighter preforms for the blowing of bottles without altering the resistance.





WATCH THE FULL VIDEO



» ECOBLOC® ERGON KL HEVS

Functions: stretch-blow moulding, filling and capping of PET bottles of still and sparkling water at a maximum speed of 25,000 bph (0.5 L.). In particular: 0.5 L and 1.5 L cylindrical bottles and 0.5 L, 1.5 L and 2 L square bottles.

» Key features of the EBS 10 KL ERGON stretch-blow moulding module:

- compact design, which ensures high speeds despite the limited space. The preform heating section is integrated with the stretch-blow moulding section
- quick and easy format changes: the preform feeding system is equipped with adjustments by means of numerical position counters, which speed up format change operations
- energy saving: stretch-blow moulding carousel equipped with motorised stretching rods controlled by electronic drives, which guarantee precision in operations and energy savings (no compressed air is required and power consumption is lower than solutions with linear motors)
- reduced oven consumption: optimised chain steps according to the preform diameter, with a consequent reduced number of preforms present in the oven and advantages on consumption
- reduced transport costs: the EBS KL series is very compact and can be easily transported in a container
- high-efficiency preform heating: system of heat-reflective panels in energy efficient ceramic composite material, positioned both in front and behind the lamps to ensure uniform heat distribution
- reduced mechanical intervention: the servo motor automatically adjusts according to the production speed
- quick and easy installation and start-up operations
- efficient stretch-blow moulding system: high-performance valves and low dead volumes (-50%) which ensures reduced pre-blow moulding and blowing times and better quality of the bottles produced
- less wear and greater precision in the management of the blow moulding machine: handling of the grippers based on springless preform/bottle grippers equipped with desmodromic cams
- advanced automation through Motornet System®: constant maintenance of optimal processing parameters during the entire production cycle, direct modification of the machine settings, simplicity of format change operations and the possibility of temporarily disabling one or more moulds if necessary
- simple and intuitive Posyc® operator interface
- predictive maintenance: machine equipped with a state-of-the-art meter to detect electricity consumption, compare it, monitor it, etc.

» Key features of the 80-15 HEVS filling and capping module:

- magnetic flowmeter technology
- volumetric electronic filling ensures high filling accuracy
- the 80-15 HEVS filling and capping system meets the needs of hygiene, safety and cleanliness, minimising the possibility of product contamination
- the structural parts of the machine are designed in such a way as to avoid the stagnation of liquids
- the inclined plane of the base ensures the continuous drainage of liquids from the inside of the filling environment to the outside
- the welded frame is made of AISI 304 stainless steel, without any iron parts, which guarantees a solid and rust-free structure
- the filling chamber is completely isolated from the transmissions, which do not come into contact with the liquid to be bottled
- the filling taps are made of AISI 316 stainless steel
- easy adjustment and settings of the machine parameters that can be performed directly from the HMI touch panel
- filling system equipped with dummy bottles with automatic insertion
- easy access to all parts of the filler for complete and efficient maintenance
- fully washable filling tap and CO₂ loading/unloading circuit
- independent channel dedicated to bottle depressurization
- format changeover without equipment
- complete bottle bottom cooling with water recirculation and cooling plate
- machine designed according to Industry 4.0 parameters, to ensure complete automation of processes and electronic management of movements, all synonyms of maximum reliability
- the movement of the machine's carousel is entrusted to sturdy gears positioned in the base of the machine.



➤ LINEAR DISCHARGE ACCUMULATION TABLE DAT 10/10 (DISCHARGE ACCUMULATION TABLE)

During the design and construction of the bottling line supplied to Santa Vittoria, particular attention was paid to the container and product handling systems, which is a key element in ensuring high plant efficiency.

Function: automatic system to receive transport and offload the bottles.

Key features:

- suitable for shaped containers (rectangular, square or oval); in the system supplied to the customer, all bottles, both round and square, processed by Santa Vittoria pass through the DAT 10/10 unloading and accumulation table
- pressure-free system, thanks to a sorting device that preserves the quality of the product during handling
- simple operation: at the infeed, the product arrives on the conveyor belt in single lane, spaced out and without pressure, and is "accompanied" towards the accumulation table by a 90° translation system
- the translation system is made up of a pair of belts with a modular chain and rubberised surface to protect the bottles
- in the central part, the accumulation table functions as a "multi-way" belt made up of several lanes side by side; the 10-lane model installed in Santa Vittoria is the largest of the DAT series
- the products are fed to the accumulation table one lane at a time (one lane enters and one lane exits); In the event of a downstream stoppage, a first batch of containers enters the accumulation table to complete the first lane of the belt, followed by the other lots occupying the remaining lanes
- the outfeed product unloading conveyor belt receives the containers from the accumulation table and, without any stoppage, sends them to the single-lane belt and the packaging line.



➤ SYNCHRONISED SYSTEM FOR SECONDARY AND TERTIARY PACKAGING
CONSISTING OF: DV 500 ERGON DIVIDER + CONVEYOR BELTS + SK 502 F
ERGON SHRINK WRAPPER + APS 3090 P SX ERGON PALLETISER

➤ DV 500 ERGON DIVIDER

Key features:

- it is a compact and flexible system for dividing the bottles arriving in single lane from the DAT 10/10 into 4 or 6 lanes and laning them to the SK 502 F twin-lane shrinkwrapper, which then packs them in 4x3 single-lane or 3x2 double-lane formats (depending on the bottle)
- continuous-motion divider, whose regular operation is ensured by the control of the availability of the product at the machine infeed (which automatically manages the working speed) and by the machine stop device

➤ CONVEYOR BELTS

Key features:

- optimised production process: conveyor belts equipped with automatic adjustment of the guides from below
- fast and precise modification of conveyor belt parameters, such as width and height, automatically and without human intervention
- management of format changes from the machine control panel: to switch from one format to another, the operator must select the desired format from the control panel and the line adapts accordingly, with real-time belt configuration
- reduction of machine downtime, typical of systems with manual adjustment of the guides
- increased plant efficiency due to improved accuracy of operations and fewer human errors
- the management and maintenance of the entire line is easier.





➤ **TWIN-LANE SHRINKWRAPPER SK 502 F ERGON**

Processed product: 0.5 L and 1.5 L still and sparkling water PET bottles; 2 L square PET bottles of still water.

Processed packages: 3x2 bundles in film only in twin lane (0.5 L – 1.5 and 2 L bottles) and 4x3 film only in single lane (0.5 L bottles).

Key features:

- hi-tech solution for twin-lane packaging of film-only bundles
- high performance and energy saving: the SK ERGON are fitted as standard, with SMITEC ICOS motors equipped with integrated servo-drives
- reduced maintenance thanks to self-lubricating chains, an innovative solution that offers two important advantages: it eliminates the danger of altering the packed goods as no lubricant is used and does not require the periodic maintenance, typical of systems with classic chains
- simplified format changeovers: the shrink wrapper's standard infeed belt is fitted with a series of side guides that greatly simplify format changeover activities, reducing the time to switch from one pack configuration to another and maintaining high production efficiency
- advanced automation and intelligent data analysis: SK ERGON machines have their own digital intelligence, which allows you to install an optional line supervisor of the SWM series to record, analyse, optimise, automatically modify production and operating parameters, exchange data and perform self-diagnostic activities to detect and solve faults or anomalies or signal the need for maintenance to the operator.



➤ **AUTOMATIC PALLETISING SYSTEM APS 3090 P SX ERGON**

Packaged containers: bundles in film only, from the SK 502 F ERGON shrink wrapper.

Pallets made: euro pallets 800x1200 mm and 600x800 mm.

Key Benefits:

- simple and intuitive man-machine interface, which allows the operator to easily and quickly manage all end-of-line palletising operations
- easy integration of the system into packaging lines
- low operating and maintenance costs.



ALPINE BALCONY OVERLOOKING THE SEA

The peculiarity and uniqueness of the Ligurian Alps is given by the fact that, forming a wide curve that runs towards the coast, they extend parallel to the Ligurian Riviera. It is a middle ground, which on the one hand offers alpine scenery and mountain traditions, while on the other landscapes, culture, climate and folklore that come from the sea. There are no other territories that have this uniqueness and particularities, so much so, that this area of Italy resembles an alpine balcony overlooking the sea, an environment where time seems to have stopped, preserving the purity of its resources. For these reasons, the natural water of Santa Vittoria, which flows from the heart of this extraordinary territory, in the far west of the Liguria region, is pure, uncontaminated and unique.

Santa Vittoria water is not simply a vital element; it is a love song of the earth, it is a symphony of crystalline drops that tell stories of ancient traditions, of perfect natural balances and of an indissoluble bond with the land of the Ligurian Alps.

Toasting with still or sparkling water of Santa Vittoria is a tribute to life, it is a journey through taste and authenticity, which brings with it the memory of unspoiled landscapes, wild nature and a priceless heritage.

Nuova Santa Vittoria...

...l'acqua della Liguria



→ **LUBRICANT OIL SECTOR**

BLENDCOR (PTY) LTD.

Durban, South Africa



VIDEO

→ Wrap-around case packer LWP 30 ERGON

→ DV 500 S divider ERGON

→ Conveyor belts



WITHOUT A SHADOW OF A DOUBT, IF YOU ARE IN SOUTH AFRICA AND STOP AT ANY SHELL OR BP GARAGE TO BUY ENGINE OIL OR LUBRICANT, YOU WILL FIND THE BLENDCOR PRODUCTS, THE JOINT VENTURE BETWEEN SHELL AND BP FORMED IN 1992 AND EXCELLENCE IN THE PETROCHEMICAL SECTOR.

BLENDCOR

EXCELLENCE AND SUSTAINABILITY: WELCOME TO DURBAN

Located on the coast of the Indian Ocean, 350 miles southeast of Johannesburg, in one of the most beautiful stretches of South Africa, Durban, the country's third largest city and the flagship of KwaZulu-Natal, is a tropical urban jewel. It is a powerful and vibrant cocktail of contrasts: a surfer's paradise with fantastic spots to ride the waves, a centre for import/export in southern Africa and a major port city with the largest sugar terminal in the world, as well as being a centre of excellence. In Durban, excellence is a way of life, teamwork and continuous innovation to achieve a single goal: customer satisfaction! This is the main concern of Blendcor (Pty) Ltd, a company at the forefront of the production of lubricants, oils and greases, which operates at Island View

in the city's port, a strategic area for trade and economy in South Africa. In this area of great industrial importance, Blendcor's production facilities make use of the latest generation technologies to achieve maximum efficiency and quality. Among these, the solutions provided by SMI to the South African company for the secondary packaging of 5 L jerry cans of lubricating oil in wrap-around boxes stand out. Blendcor has recently installed a case packer of the LWP ERGON series with a DV 500 ERGON divider/channeler and conveyor belts, to which will soon be added a new line supplied by SMI for the packaging of 0.5 L and 1 L HDPE shaped bottles in wrap-around cardboard boxes.



A CITY FULL OF HISTORY

The beautiful coastal and trading city of Durban was discovered on Christmas Day 1497, by Portuguese navigator Vasco da Gama, who landed along the coast and named the landing site Natal, later Port-Natal. From 1823 to 1835 the city was a major trading port and in 1835 it was renamed Durban in honour of the then Governor of Cape Town, Sir Benjamin d'Urban. Today it maintains the distinction of being the largest sugar trading port in the world and stands out from other cities in South Africa for its incredible ethnic richness, with more than half of the inhabitants of Zulu origin and the presence of the largest Indian population on the continent. Thanks to its beautiful beaches, Durban is an established tourist destination in the Transvaal and, in recent years, has hosted several important conferences, such as the World Conference against Racism organised by ONU.

▶ THE PORT OF DURBAN

Thanks to its strategic location along the major routes of world trade, the port of the city of Durban is the largest shipping terminal on the African continent, open 24 hours a day, 365 days a year. It handles over 30 million tons of cargo annually, is visited by 4,500 cargo ships each year, and has 58 berths, serviced by over 20 terminal operators. The distance from one side of the port to the other is 21 km, while there is a total of 300 km of rails within it. Among the most strategic points of the port is Island View, where the Blendcor company is based.



EXCELLENCE COMES FROM CUSTOMER SATISFACTION AND TEAMWORK



As an operating unit of Shell and BP, two of the world's largest oil companies, Blendcor is obliged to comply with the international standards set by the two companies, as well as all legal, local, regional and national requirements. The company has obtained important certifications such as SABS ISO 14001 (environmental management system), 45001 (occupational health and safety management system) and IATF 16949:2016 (process-oriented quality management system that provides for continuous improvement, defect prevention, etc.). Blendcor is constantly striving to ensure the satisfaction of its customers and the training of its staff, carefully chosen to ensure diversity and inclusion.



➤ INDUSTRIAL LUBRICANTS MARKET OVERVIEW

The increasing industrialisation of manufacturing processes around the world, and the consequent increased demand for machinery and equipment, is creating significant growth opportunities for the industrial lubricants market. In fact, machinery needs lubrication to function properly. There is also a growing demand for high-performance lubricants that can reduce friction and wear on plant and equipment, thus leading to further consumption within the fuel market. The significant growth of the manufacturing and motor sector in South Africa, and the consequent increased demand for motor oils and greases, gives a vital role to Blendcor, which has the largest direct-selling blending plant in Africa. The Durban-based company is constantly striving to operate effectively and maintain a leading role. In this regard, it adopts a five-year strategy with development plans that focus on sustainability, automation to promote operational efficiency, people and cost competitiveness.



SMI SOLUTIONS

→ VERSATILE AND EFFICIENT MACHINERY FOR PETROCHEMICAL PACKAGING

The petrochemical industry is particularly demanding and requires precise and safe packaging in the packaging process of jerry cans, drums, oil cans and lubricants, especially in the presence of flammable materials.

Focused on automotive, mining and energy-related products, Blendcor plays a primary role in the smooth running of the industry as a whole in South Africa, keeping businesses moving and thriving, enabling continued opportunity creation and keeping the country's lights on.

The Durban-based company believes in achieving excellence through customer satisfaction, innovation and teamwork. In addition, as an operating unit of Shell and BP, two of the world's largest oil companies, Blendcor is obliged to comply with the international standards set by these two companies, as well as all legal, local, regional and national requirements. All factors that contribute to the achievement of the highest quality of the products.

FOR BLENDCOR

The need to increase productivity and ensure efficiency and quality within the packaging lines of rectangular 5L PVC jerry cans containing lubricating Castrol oil, led Blendcor to invest in the purchase of new wrap-around case packers with advanced technological content.

SMI, thanks to the support of its local partner Caltech Agencies, provided the customer with a functional and competitive packaging solution, consisting of a DV 500 series divider, an LWP 30 ERGON wrap-around case packer and conveyor belts serving the two machines.

To monitor and improve the production efficiency of the plant, SMI also provided a dedicated software that manages the communications between the DV 500 divider, the weight controller and product evacuation system installed upstream of the divider. Thanks to this management, the lubricant jerry cans that do not fall within the weight parameters defined by the South African company are automatically conveyed to a third row of belts, so that the operator can subsequently pick them up and reject them, to avoid them being packed in cardboard boxes. The jerry cans that have the correct weight are distributed on the two rows of conveyor belts at the infeed of the LWP 30 ERGON case packer, to be packed in wrap-around cardboard boxes in a 2x2 format.

→ WRAP-AROUND CASE PACKER LWP 30 ERGON FOR PRODUCTIONS UP TO 30 PPM

Processed product: 5 L PVC jerry cans.

Processed packages: 2x2 wrap-around boxes.

Key features:

- secondary packaging solution suitable for the protection of lubricants in 5 L jerry cans
- the wrap-around packaging system forms the cardboard box and encloses the containers inside with the use of a single machine: the case packer
- machine suitable for packaging various types of containers, cylindrical or shaped shapes such as the Blendcor products
- corrugated wrap-around boxes are very resistant to impacts and are therefore the ideal solution to preserve the integrity and quality of the products they contain
- wrap-around packages are more stable
- the cardboard die is folded and carefully wrapped around the products at the same time as they are grouped into the desired format, without any downtime
- versatile, efficient and cost-effective solution, compact and suitable for any logistics configuration of the production plant
- the wrap-around box is a great marketing tool, thanks to the possibility of graphic customisation of the packaging.





➤ DIVIDER - LANER DV 500 S ERGON

Function: it divides the 5 L PVC jerry cans into two lanes, which are packed in 2x2 cardboard boxes in the LWP 30 ERGON case packer.

Key features:

- compact and flexible system for dividing the containers into several lanes and laning them towards the wrap-around case packer
- continuous-motion divider, whose regular operation is ensured by the control of the availability of the product at the machine infeed, which automatically manages the working speed, and from the machine stop device to ensure the smooth and consistent packaging process
- the divider supplied to Blendcor has software for communication with the weight controller and product evacuation system, installed upstream of the divider. The overweight jerry cans are conveyed to a third row and picked up by the operator, while those of the correct weight are divided into two lanes and then processed by the case packer.

➤ CONVEYOR BELTS

Function: conveying 5 L bulk PVC jerry cans out of the DV 500 divider-laner to the LWP wrap-around case packer.

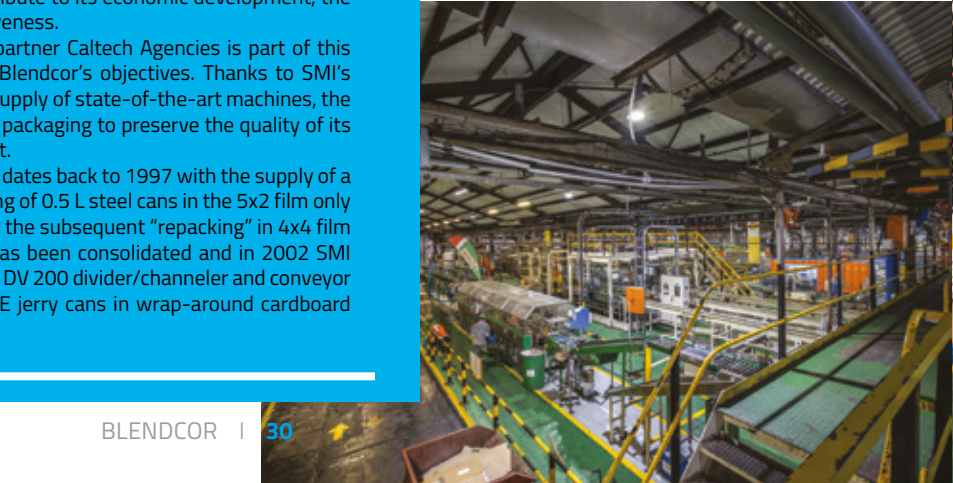
Key features:

- smooth and steady, smooth handling of containers entering the LWP
- use of high-quality components and wear-resistant materials, which reduce friction and noise, preserving the quality of the transported packages
- high reliability of the system, thanks to AISI 304 stainless steel structure and components
- the modular structure and the high compatibility with other systems allow for extremely simple installation, start-up and testing operations
- simplified maintenance operations.



FOCUS ON BLENDCOR

Owned by international oil giants, Shell and BP, Blendcor (Pty) Ltd was established in 1992 and from its 53,000 m² headquarters in Island View, Durban, continues to strive for excellence in the production of lubricants, oils and greases, to ensure the smooth running of vital motor, mining and industrial sectors. However, the origin of Blendcor dates back to 1956, when the company Fraser and Chalmers built a blending plant in the port of Durban with a production capacity of 50,000 tons per year. Just one year later, in 1957, the factory was modified to increase capacity to 80,000 tons per year. Today, more than seventy years later, with a workforce of over 285 people and an annual production capacity of over 200 million litres, Blendcor continues to play a key role in the production of a wide range of greases and lubricants (motor and industrial). It is currently a joint venture in which the two giants Shell Southern Africa and BP Southern Africa each own a 50% stake.



→ THE ROLE OF PARTNERS

Blendcor attributes a key role to all partners who, by working with the company to maintain high quality and safety standards, contribute to its economic development, the creation of the value chain and market competitiveness. The direct collaboration with SMI and the local partner Caltech Agencies is part of this context and contributes to the achievement of Blendcor's objectives. Thanks to SMI's long experience in the field of packaging and the supply of state-of-the-art machines, the Durban-based company ensures the appropriate packaging to preserve the quality of its products and their competitiveness on the market. The first collaboration between Blendcor and SMI dates back to 1997 with the supply of a shrinkwrapper of the APET series for the packaging of 0.5 L steel cans in the 5x2 film only format and an AF 432 B model shrinkwrapper for the subsequent "repacking" in 4x4 film only formats. Over the years the collaboration has been consolidated and in 2002 SMI supplied a WP 300 XL wrap-around case packer, a DV 200 divider/channeler and conveyor belts to process 3 different types of 5 litre HDPE jerry cans in wrap-around cardboard boxes in the 1x3 and 1x4 format.

BLENDCOR'S ROLE IN THE LUBRICANTS MARKET

Blendcor plays a key role in the lubricants industry in South Africa. It is the largest mixing company on the continent that sells directly to the market and meets the needs of an ever-growing industry. The Island View location, in the port of Durban, is strategic for both imports and exports. The company continuously reviews its development strategies to improve competitiveness and safety standards. Among the main pillars of Blendcor's five-year strategy is sustainability. Equally important are the other pillars: automation to drive operational efficiency, cost competitiveness and staff well-being. This last aspect has a strategic relevance for this company, which puts the growth of people, their skills and their potential first.



FOR THOSE SEEKING PEACE, TRANQUILITY AND AUTHENTIC EXPERIENCES THROUGH THE CONTEMPLATION OF UNFORGETTABLE LANDSCAPES, THE AREA ADJACENT TO FONTE PLATINA, BRAZIL, IS THE IDEAL PLACE TO OPEN THEIR SENSES AND BENEFIT FROM THE PROPERTIES OF A UNIQUE WATER.

➤ **WATER SECTOR**
FONTE PLATINA
Águas da Prata, SP, Brazil



➤ Rotary stretch-blow moulder EBS 4 K ERGON



FONTE PLATINA

CONNECTED WITH NATURE

When we are in close contact with nature, we live in the open air, we practice sports, we discover the art, culture and gastronomy of the surrounding environment, we benefit from unique and unforgettable sensations that arise from the opening of our senses. Because nature has the fantastic power to excite us and let us experience new sensations.

In the enchanting territory of Águas da Prata, in the state of Sao Paulo in Brazil, the pristine environment, characterised by wonderful water springs, has the power to make you live unique sensory experiences. Immersed in this landscape, where peace and tranquility impossible to find in urban centers reign, we discover Fonte Platina, a cutting-edge company that continuously invests in new technologies such as the EBS 4 K ERGON stretch-blow moulding machine recently supplied by SMI for the production of 0.31 L and 0.51 L PET bottles (with petaloid and flat bottom) of Água Platina. The new plant, designed according to the strictest environmental standards, responds to the company's need to make use of socially responsible systems, necessary for the production of PET bottles for the bottling of still and sparkling water which, to meet the countless requests of customers, is marketed with customised labels.



FONTE PLATINA & ENVIRONMENT

➤ PATH OF FAITH AND CYCLE-TOURIST ROUTES

Águas da Prata is the first municipality on the Caminho da Fé, a popular Catholic pilgrimage route of about 500 kilometers to the Sanctuary of Aparecida, inspired by the ancient Camino de Santiago de Compostela to offer support points, infrastructure and information to pilgrims. Inaugurated in 2003, it is also one of the most popular national cycling routes. In recent years, this outdoor sport has reached enormous proportions and the territory has been organised by outlining large itineraries. For this reason, today, near the Fonte Platina factory, there are beautiful paths for trekking and cycling lovers, which cross a unique natural environment.



The environment is at the heart of Fonte Platina's production activity. Everything revolves around its protection and preservation. For this reason, the recognition obtained by the EURECICLO certification is fundamental.

This certification, confirms that Água Platina is contributing to the recycling of post-consumer plastic waste, that it carries out socially responsible activities and that it works to build a more sustainable future.

This seal brings numerous benefits to businesses, the environment, and consumers. The companies stand out on the market as a sustainable brand, committed to the preservation of the environment and have the guarantee of complying with all environmental standards and regulations, avoiding possible penalties.

Another advantage is the transparency of information as certified companies are required to disclose the amount of recycled plastic waste and the destination of the resources obtained from the sale of recycling credits.

Consumers who purchase products with the EURECICLO Seal have the guarantee that the company is committed to sustainability and encourages circular economy, with consequent advantages on environmental impact, thanks to the reduction of pollution and waste of resources.



ÁGUAS DA PRATA AND THE WATER SPRINGS

Fonte Platina is a suburb of the municipality of Águas da Prata, one of the 11 municipalities considered a hydromineral station by the State of São Paulo that meet the requirements defined by law and benefit from funding to promote tourism. This status gives importance to the properties and quality of the countless mineral-medicinal springs present in the area, including Fonte Platina.

The discovery of the first source of water happened by chance in 1876, when the dentist Rufino Luiz de Castro Gavião observed that animals from a nearby farm went to a water source instead of the banks of the river to quench their thirst. Chemical analyses later confirmed the alkaline properties of the springs in the area, properties similar to those of the Vichy fountains in France. For this reason, the place has earned the nickname "Brazilian Vichy".



ONE SYSTEM FOR COUNTLESS LABELS

Fonte Platina focuses on the concepts of product and production process quality, customer enhancement, business ethics, respect for the environment and social responsibility. The Brazilian company continues to innovate in the premium and gourmet water segment, leveraging cutting-edge technologies that prioritise energy saving. The perfect

synergy of physico-chemical elements and the high moisturising power of the water give value and quality to the product, which, thanks to its lightness and balance, harmonises perfectly with different types of dishes and is considered one of the best waters in the country. The water in 0.51 L and 0.31 L PET bottles, made by the SMI EBS 4 K ERGON stretch-blow moulding machine, is marketed both with

traditional labels under the Água Platina brand and labels depicting different themed images, thus becoming a personalised communication tool capable of conveying messages, making a "brand" known or advertising an event. For customers, mainly represented by restaurants, bars, sports activities, etc., personalised bottles are a way to stand out in the market and delight consumers.

Eleve a sua marca com a nossa *Água!*
Garanta o seu rótulo *personalizado.*



➤ ENVIRONMENTALLY FRIENDLY TECHNOLOGY

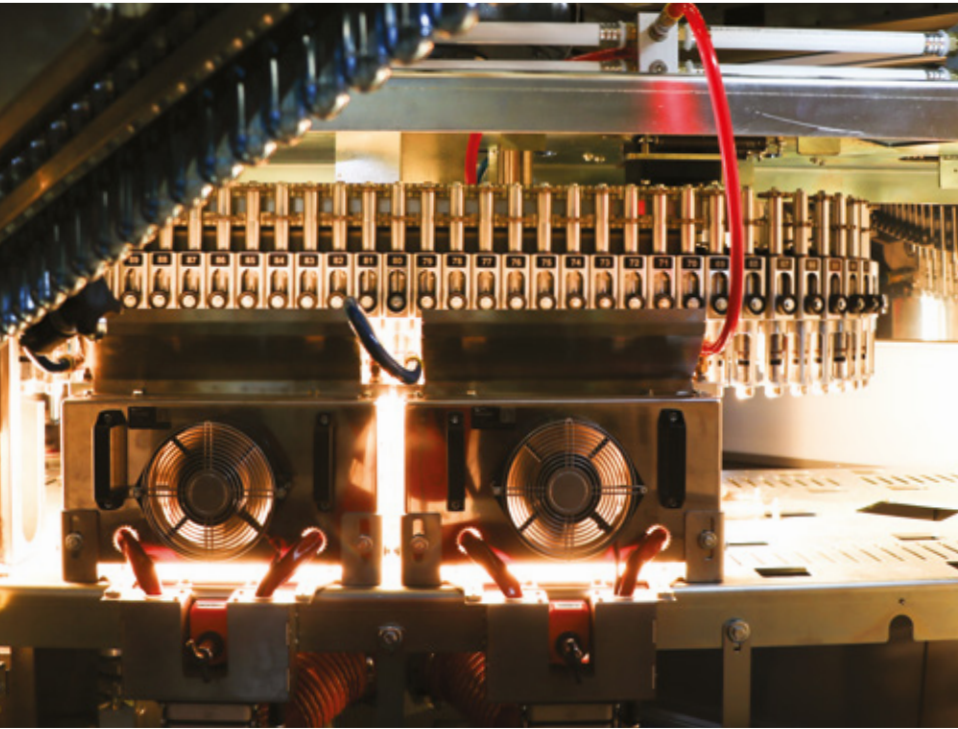
The use of state-of-the-art technologies allows Fonte Platina to offer products that are environmentally friendly and meet the needs of consumers.

The constant investment in new equipment, together with the strict controls and the effective partnership between customers, suppliers and collaborators distinguish the production plants of Fonte Platina, from which high quality products come out, made in a wide variety of labels able to meet the needs of countless customers.

To achieve these goals, the Águas da Prata-based company turned to SMI's subsidiary SMI DO BRASIL for the installation of a state-of-the-art production line dedicated to the stretch-blow moulding of PET bottles for the bottling of natural and sparkling mineral water.



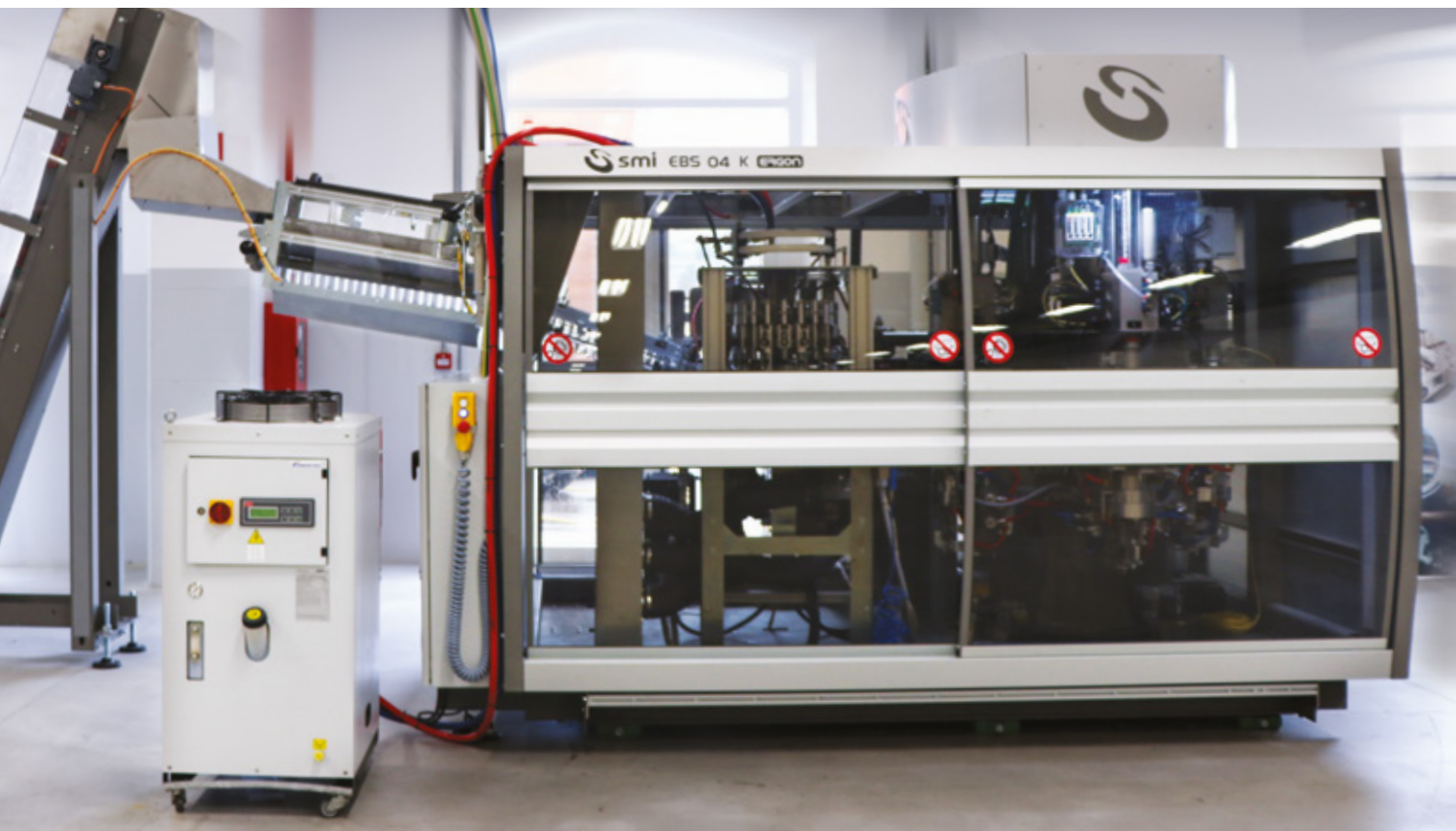
SMI'S SOLUTIONS



FOR FONTE PLATINA

Thanks to the new EBS 4 K ERGON compact stretch-blow moulder, Fonte Platina achieves greater automation for the production process, an increase in efficiency and at the same time a reduction in electricity and compressed air consumption.

The presence of the SMI DO BRASIL branch was an essential element for the collaboration between Fonte Platina and SMI, because the company has to be able to count on qualified and high-level support at all times.



➤ STRETCH-BLOW MOULDER EBS 4 K ERGON

Functions: stretch-blow moulding of 0.51 L and 0.31 L PET bottles with flat bottoms and 0.51 L and 0.31 L PET bottles with petaloid bottoms. Production capacity up to 8,000 bottles/hour.

Key Benefits:

- high-efficiency rotary stretch-blow moulding system, equipped with motorised stretch rods (commonly used in high-speed production), which has considerable advantages over linear blow moulding machines and guarantees precise management of the stroke of the stretch rod and accurate control of its position, as well as significant energy savings
- ultra-compact system: the preform heating section (oven) is integrated with the stretch-blow moulding section (carousel) in a single, very compact module, which makes the system suitable for installation even in small bottling lines
- the structure, which encloses the oven and carousel, is equipped with slightly rounded protective doors, which allow more space inside the machine to be able to carry out cleaning and maintenance activities easily and safely
- reduced energy consumption of the blow moulding machine, thanks to the preform heating module equipped with energy-efficient IR lamps and the stretch-blow moulding module equipped with a two-stage air recovery system, which reduces energy costs related to the production of high-pressure compressed air
- the stretch-blow moulding system uses high-performance valves and low dead volumes, which allow the reduction of pre-blow moulding and blowing times, to the benefit of the machine's performance and the quality of the bottles produced
- the plant is managed by the MotorNet System® automation and control system, which ensures the constant maintenance of optimal processing parameters during the entire production cycle and the direct modification of the machine settings, thus simplifying format change operations.





➤ FOCUS ON FONTE PLATINA

The company began operations on March 31, 1918. The Fonte Platina trademark was registered in 1935 and, in 1945, only 10 years later, it became a point of reference in the mineral water market in Brazil. Since the beginning of its activity, Fonte Platina has shown its strong attention to the surrounding environment with initiatives such as the reforestation of trees in the reserve and investing more and more resources in modern technologies. In 2014 the company installed laboratories and state-of-the-art machines in its plants, which in a short time led it to be considered one of the best natural water brands in the country. In 2023, further investments in innovative technologies lead to the installation of a new SMI compact stretch-blow moulder of the EBS 4 K ERGON series.



EXPLORING ÁGUAS DA PRATA AMONG NATURE



The municipality of Águas da Prata is located on the slopes of an extinct volcano that gives unique characteristics to the soil, climate and relief. In the area you will find the famous Pico do Gavião, a place with breathtaking views, from which you can see the caldera of the volcano and where international paragliding and hang gliding championships are held.

In addition, the abundant water springs and mountain ranges favour the formation of waterfalls, there are more than 90 known ones, but the number is believed to be much higher. The waterfalls can be reached by suggestive paths on foot or by bike, which run along rivers and lakes and cross beautiful forest areas in contact with nature and which offer spectacular breathtaking views.



... ECONOMIC DEVELOPMENT...

Economic development is the result of historical events of great national importance, such as the evolution of the gold and coffee cycle and the consequent birth of railways and commerce, which have brought economic progress and greater attention to the well-being and therapeutic properties of medicinal mineral waters.

Unlike most Brazilian cities built around a church or on the side of a road, Águas da Prata was built around a train station built to facilitate the transport and trade of coffee.



... AND CULTURE!

The area adjacent to Fonte Platina is a place that invites retreat and tranquility, with outdoor modernist sculptures and historic houses such as Boca do Leão, restored and adapted to host exhibitions by local artists, contributing to the development of the local people, economy and culture.



COMPACT PACKAGING MACHINES WITH 90° INFEED

➤ COMPACT AND VERSATILE PACKAGING MACHINES

SMI's new packaging machines are well suited to the dynamism of numerous companies in a wide range of sectors, first and foremost the "food & beverages" sector, which, in order to face growing competitiveness, must adapt to modern lifestyles and consumer demands for numerous pack formats, small, medium or large, for containers of different capacities.

Born from the need to manage a wide variety of formats on the same packaging line, the new packaging machines with 90° infeed are characterised by the reduced dimensions of the feeding system and the simplicity of format changes.

Currently the available variants are:

- **80-I**: for productions up to 80 introductions/minute (*): ASW 80-I F/P/T, ACW 80-I and AFCW 80-I models
- **150-I**: for productions up to 150 introductions/minute (*): ASW 150-I F/P/T, ACW 150-I and AFCW 150-I models

(* Variable according to the exact shapes and sizes of the containers.

SYSTEM OPERATION

To feed the shaped containers smoothly and keep them in the correct position, it is not possible to use the mass flow introduction system, but a system is needed, that maintains the correct orientation of the same throughout the production process. Where there are no space problems, it is possible to introduce a divider/laner to correctly convey the containers to the infeed of the packaging machine, but this solution requires a greater investment due to upstream and downstream conveyors, justified only if only shaped containers are processed. On the other hand, the ASW, ACW and AFCW packaging machines, equipped with a single-lane infeed belt, have the considerable advantage of not requiring the presence of a

divider for the laning of loose products. Format changeover operations can be completed quickly and in a simplified manner, because it is possible to process different types of containers, to vary sizes, without having to resort to additional equipment. In the pack-forming area, a sorting device groups the correct number of containers before the packaging operation. The product infeed system is in a continuous cycle and the pack formation takes place by means of synchronised dosing belts with brushless motors (models 80-I) or by means of an electronic separator (models 150-I). Subsequently, the loose products are transferred from the feeding conveyor to the packaging conveyor belt by means of a

Cartesian axis system (models 80-I) or a rotary system (models 150-I). In the models that are used in a pad, tray or box, a rotary picker consisting of two groups of suction cups with an electric suction system picks up the dies from the cardboard magazine. The tray forming machine operates continuously and the unwinding of the film (where provided) is managed by the cutting unit (models 80-I) or by brushless motors (models 150-I). The splicing of the film at the end of the reel is done by means of a manual sealing bar.



→ ERGONOMICS AND SAFETY OF OPERATIONS

For SMI, innovation also involves ergonomics, which, in the workplace, plays an increasingly important role in protecting the health and safety of line operators. The single-lane infeed, preferably positioned on the side opposite the operator, facilitates the correct laning of loose containers onto the conveyor belt equipped with thermoplastic chains with a low friction coefficient. For models that have it, the cardboard magazine is located next to the operator, for a more ergonomic, simple, fast and safe loading of cardboard.

TO HANDLE BOTH CYLINDRICAL AND SHAPED CONTAINERS IN A WIDE VARIETY OF FORMATS

When it is necessary to pack containers of different sizes, both cylindrical and shaped, within a bottling line, it is essential to have a versatile, compact system that is easy to manage and use, especially if multiple pack configurations are to be worked with the same machine. To meet these needs, SMI has launched a whole range of new packaging machines with 90° single-lane infeed:

→ ASW ERGON (Angular Shrink Wrappers)

- Packaging in shrink film, pad+film, tray only, tray+film
- Infeed with single-lane conveyor and 90° product feeding system
- Double-belt product separation system driven by electronic axis
- Vertical cardboard magazine
- Alternate motion cardboard blank picker
- Film unwinding controlled by the cutting blade motor (ASW 80-I) or by the brushless motor of the reel holder (ASW 150-I)
- Manually (ASW 80-I) or automatically (ASW 150-I) phased tray forming unit
- Single film reel (ASW 80-I), double film reel (ASW 150-I)

→ ACW ERGON (Angular Carton Wrappers)

- Packaging in wrap-around case and WP tray
- Infeed with single-lane conveyor and 90° product feeding system
- Double-belt product separation system driven by electronic axis
- Vertical cardboard magazine (ACW 80-I), Easy-Load horizontal cardboard magazine (ACW 150-I)
- Alternate motion cardboard blank picker
- Manually (ASW 80-I) or automatically (ASW 150-I) phased tray forming unit
- Case sealing by means of hot melt glue

→ AFCW ERGON (Angular Film Carton Wrappers)

- Packaging in wrap-around case, tray only and tray+film
- Infeed with single-lane conveyor and 90° product feeding system
- Double-belt product separation system driven by electronic axis
- Vertical cardboard magazine (ACW 80-I), Easy-Load horizontal cardboard magazine (ACW 150-I)
- Alternate motion cardboard blank picker
- Film unwinding controlled by the cutting blade motor (AFCW 80-I) or by the brushless motor of reel holder (AFCW 150-I)
- Manually (ASW 80-I) or automatically (ASW 150-I) phased tray forming unit
- Single film reel (AFCW 80-I), double film reel (AFCW 150-I)

FLEXIBILITY AND EASE OF USE

With the single-lane infeed it is possible to process different types of containers, of various sizes, without having to resort to additional belt equipment, with the advantage that format changes are quick and easy as there is no need to adjust the guides of the various lanes.

The film cutting unit (for the ASW and AFCW series), with a compact design, is equipped with a blade managed by a brushless motor with direct "direct-drive" transmission, which improves the precision and accuracy of the cut and simplifies maintenance operations.

The user-friendly adjustment is facilitated by the POSYC® control panel, sliding on a track along the entire length of the machine, which allows easy and efficient use of the packaging system. This is possible thanks to the extremely intuitive graphical interface, the touch-sensitive screen and the advanced real-time diagnostics and technical support functions present on the POSYC®.



→ THE ADVANTAGES OF THE NEW SMI RANGE:

- single-lane infeed
- compact layout
- ease of use
- high flexibility to handle cylindrical and shaped containers on the same machine
- high versatility to process a wide variety of small and large formats
- suitable solution for production cycles that require frequent format changes
- for productions up to 150 introductions/minute
- quick and easy format changeovers
- easy maintenance.

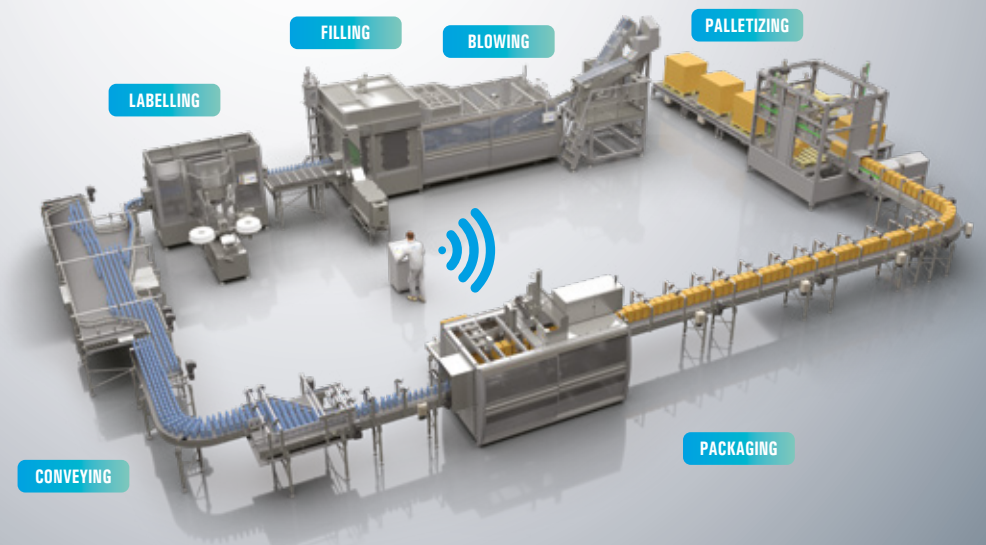
DESIGN WITH US YOUR CIRCULAR PACKAGING



IMPROVING YOUR CARBON FOOTPRINT IS EASY WITH SMI!

Our bottling and packaging systems benefit from Industry 4.0 and IoT technologies, can process recyclable materials such as rPET and allows for considerable energy savings.

Find out our solutions for packing a wide range of containers up to 50,000 bottles/hour.



TOWARDS INDUSTRY 5.0



THE NEW INDUSTRIAL ERA HAS ALREADY BEGUN!

We are ready for Industry 5.0. After the first industrial revolution, those that followed it, and the very recent Industry 4.0, the world of production is already preparing for the next one: Industry 5.0. The announcement came from the European Commission through a dedicated document "Industry 5.0: towards a sustainable, human-centric and resilient European industry", which puts the well-being of the worker at the center of the production process and uses new technologies to provide prosperity, jobs and growth, while respecting the limits imposed by the planet.

Making Industry 5.0 a concrete reality means for industries in every sector to adapt and evolve to embrace the green and digital transition, while continuing to be competitive and productive.



DIFFERENCE TO INDUSTRY 4.0

The main difference between the fourth and fifth industrial revolutions is that the latter seeks to foster a more balanced working relationship between increasingly intelligent technologies and humans. The most representative element, at a technological level, of this virtuous interaction between man and machine will be cobots, collaborative robots, integrated into industrial processes for the most repetitive and trivial tasks, providing humans with more opportunities to use their creative flair.

Industry 5.0 also attaches great importance to sustainability, aims to create a more ergonomic and individual-centred working environment, aims to respond to social and environmental needs, promoting the circular economy, corporate social responsibility and sustainable production for a more resilient future oriented towards the well-being of man and the planet.

→ WHY WE TALK ABOUT INDUSTRY 5.0

- The first revolution was defined by mechanisation through power generated by water and steam.
- The second focused on the concept of mass production and was characterised by electricity, iron and steel.
- The third saw the rise of the computer and automation.
- Industry 4.0 is characterised by connection and digitalisation, the creation of smart factories with cyber-physical systems, and communication through the Internet of Things.
- Industry 5.0 takes the next step, which consists of exploiting the collaboration between increasingly powerful and precise machines and the unique creative potential of the human being.

INDUSTRY 5.0 AND ENVIRONMENTAL SUSTAINABILITY

THE IMPORTANCE OF ECO PRODUCTION

Industry 5.0 places a particular emphasis on environmental sustainability, recognising the vital importance of an eco-friendly manufacturing approach for the well-being of the planet and future generations. This new industrial era, encourages the adoption of processes that minimise environmental impact through increased energy efficiency, the use of sustainable materials, and waste recycling. The circular economy becomes a fundamental pillar, pushing companies to rethink the life cycle of products, from design to the end of their use, promoting the creation of durable, repairable and fully recyclable products. In addition, the integration of smart technologies makes it possible to optimise the use of resources and reduce waste, thanks to real-time monitoring systems and predictive algorithms that ensure a more efficient use of energy and materials. Sustainability in Industry 5.0 is not only limited to ecological aspects, but also includes corporate social responsibility, with a focus on working conditions and the economic and social impact of production activities on local communities. In this context, eco-sustainable production becomes a strategic imperative for companies.

This new industrial revolution encourages companies to integrate renewable energy solutions into their production processes, optimise energy consumption, and improve overall sustainability performance. Through the use of advanced technologies, it is possible to monitor and manage the flow of energy in real time, identifying and reducing waste. These smart systems can also predict peak demand and adjust production accordingly, maximising efficiency and minimising the carbon footprint.



➤ CHALLENGES AND OPPORTUNITIES OF INDUSTRY 5.0: INVESTING IN NEW TECHNOLOGIES

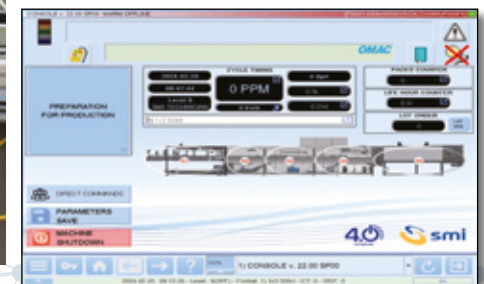
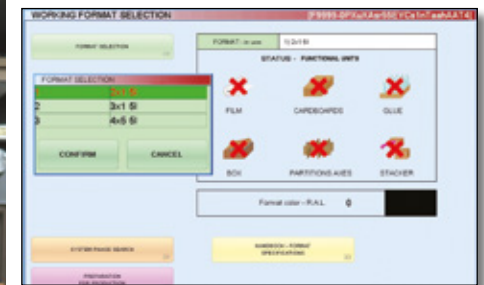
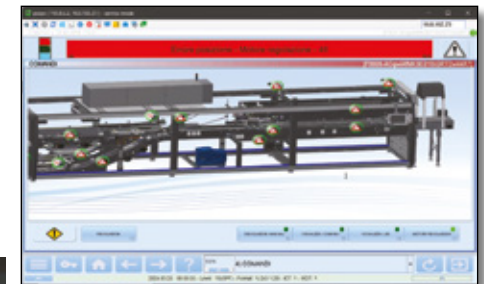
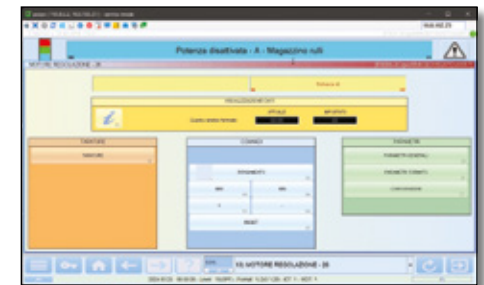
Among the main challenges posed by Industry 5.0 is the need for significant investment in new technologies and infrastructure, as well as managing the transition to smarter and more interconnected production systems.

The bottling and packaging plants produced by SMI are part of the investments envisaged by the government's Industry 4.0 and Transition 5.0 plans, as they are equipped with the most modern automation and IoT (Internet of Things) technologies. The latter make it possible to collect and integrate the operating data of all the machines supplied by SMI into a single control and management platform, to provide constant monitoring of the level of efficiency and energy consumption of the same in real time, to intervene even remotely to vary the processing parameters or in case of problems.

THE SOLUTIONS ADOPTED BY SMI FOR INDUSTRY 5.0

SMI manufactures fully automated and ergonomic systems for primary, secondary and tertiary packaging, user-friendly and able to interconnect in digital networks. This makes it possible to increase the flexibility and efficiency of production, as well as an accurate control of the consumption of the machines, fully meeting the current criteria of Industry 4.0 and the new ones of Industry 5.0. Thanks to the digital intelligence with which they are equipped, the latest generation of SMI machines can benefit from the SMYIOT platform, which has the task of collecting all the operating and life cycle data of the same, allowing them to be verified, processed and enhanced. Enhancement made in a collaborative perspective and synergy between man and machine and AI, so as to speed up and improve the accuracy of decision-

making processes, flexibility, adaptation of production, efficiency and energy control of plants. All this is also guaranteed by constant monitoring, through a control room, by the SMI after-sales service office; in addition, the HMI of SMI plants is another element of Industry 5.0 that aims to simplify human-machine collaboration. From the control panel, the operator can select various dashboards that facilitate the management and maintenance of the machine, allow the selection of processing parameters and provide the user with guided and interactive procedures. All these elements ensure the user-friendly management of the bottling and packaging systems produced by SMI.



SMART BOTTLING & PACKAGING LINES
UP TO 50,000 BOTTLES/HOUR



SMI DO BRASIL LTDA

Since 1998 SMI has been present in Brazil with the subsidiary SMI DO BRASIL LTDA. The facility, established with the aim of following more closely the numerous existing and future customers, is located in the city of Osasco, one of the most populous municipalities in the metropolitan area of São Paulo in Brazil and one of the largest and most important logistics districts in the country.

The branch is part of SMI's plans to strengthen the sales network and technical assistance to offer direct support to all local customers. In order to best meet the demands of the Brazilian market, in fact, it is of fundamental importance to be present with qualified mother-tongue personnel able to provide immediate assistance, especially for the supply of spare parts and technical interventions in a short time to the numerous bottling and

packaging plants installed in the area. The SMI DO BRASIL branch is located in a 1800 m² structure used both for the commercial and technical offices and for the spare parts warehouse and can currently count on a staff of 31 people, of which 12 technicians, 11 sales/marketing employees and the other 8 dedicated to administrative functions and spare parts management.

A CHAT WITH GUILHERME VIVONA

→ **Managing Director of SMI DO BRASIL**



Q: SMI has been present in Brazil since 1998. What are the key factors that required SMI's direct presence through a subsidiary?

A: We represent "Designed and Made In Italy"; We are therefore working to consolidate ourselves as strategic partners for the Brazilian industry, working closely with companies that need advanced technologies to be able to produce more and better, while ensuring greater safety for their employees and respect for the environment. Equally important, indeed I would say fundamental, among the key factors that required SMI's local presence, is the need to be closer to markets such as Brazil characterised by a large population, a high potential for economic growth and booming consumption. All elements that have led us to become protagonists of the changes in the business environment.

Q: What are the main demands of the Brazilian market?

A: Brazilian companies require long-term capital goods and technology suppliers to whom they can entrust their growth strategies. Equally important is the efficient supply of services and components. In fact, the Brazilian market requires the best technologies and plant solutions developed in Europe, but with the certainty of being able to count on the presence of local support, which perfectly understands the culture and needs of customers.

Q: In particular, what do food and beverage companies require in terms of plant performance and service?

A: Fast Moving Consumer Goods (FMCG) manufacturers aim to continuously expand

production and market share. This is how they achieve greater profitability thanks to the quality of the products offered to their consumers. Our role is to ensure their continuous productivity through maximum efficiency and the reduction of losses and waste, combined with the optimisation of resources, the development of a project by a commercial teamwork, up to the installation of the plant and continuous technical monitoring by the service team.

In addition, consumer goods companies are particularly attentive to the ESG (Environment, Social and Governance) agenda, an issue to which SMI, a supporter of the United Nations Global Compact, is able to respond positively.



Q: How does SMI DO BRASIL respond in terms of investments?

A: SMI in Brazil is recognised on the market for its commitment to the continuous research of the quality of the products offered and for the efficiency of the systems installed. The results obtained so far by the SMI DO BRASIL branch demonstrate the validity of our proposals in the eyes of customers. In particular, in 2023 we achieved an all-time record in total turnover, with a satisfactory return on investment and in line with the directives of the Group's Board of Directors.

Q: What is your opinion on current market trends?

A: Sustainability and digital technologies will surely drive the future of global industry. SMI's culture lies in the development of new machinery and complete line systems with advanced technological content and high energy efficiency, which allow customers to make full use of the plants, taking advantage of the opportunities offered by solutions inspired by the principles of Industry 4.0 and operating with the utmost respect for the environment. Equally important is the automation of machines and processes, which allows customers to constantly analyse, even remotely, the operating data of their plants, without forgetting SMI's attention to solutions capable of reducing the carbon footprint of the users of its machines; for example, the rotary stretch-blow moulders of the EBS ERGON series and the integrated blowing, filling and capping systems of the ECOBLOC® series have been designed to process rPET bottles and therefore allow the use of recycled material for environmental protection.

AT THE SIDE: THE TEAM OF SMI DO BRASIL →



ENOBERG

A group photograph of approximately 30 Enoberg employees. Most are wearing grey polo shirts with the Enoberg logo. They are arranged in two rows, with some kneeling in the front and others standing behind. A woman in a black top and grey skirt stands in the center of the back row. In the background, a large sign displays the Enoberg logo and name. The setting appears to be an office or a modern building interior.

enoberg

celebrates

40 years

1984-2024: A STORY OF COURAGE AND PASSION



In 2024, ENOBERG will celebrate its 40th anniversary. An important milestone that rewards the commitment, professionalism and determination of those who have always believed in this company and those who continue to get involved in designing and developing new bottling solutions.

The result of 40 years of activity is certainly represented by the range of cutting-edge machines made by ENOBERG, but also by the passion and soul of the people who designed and built them. People who, with their enthusiasm, have made the company grow year after year, leading it to establish itself among the leading Italian manufacturers of bottling machines with about 500 units installed all over the world.

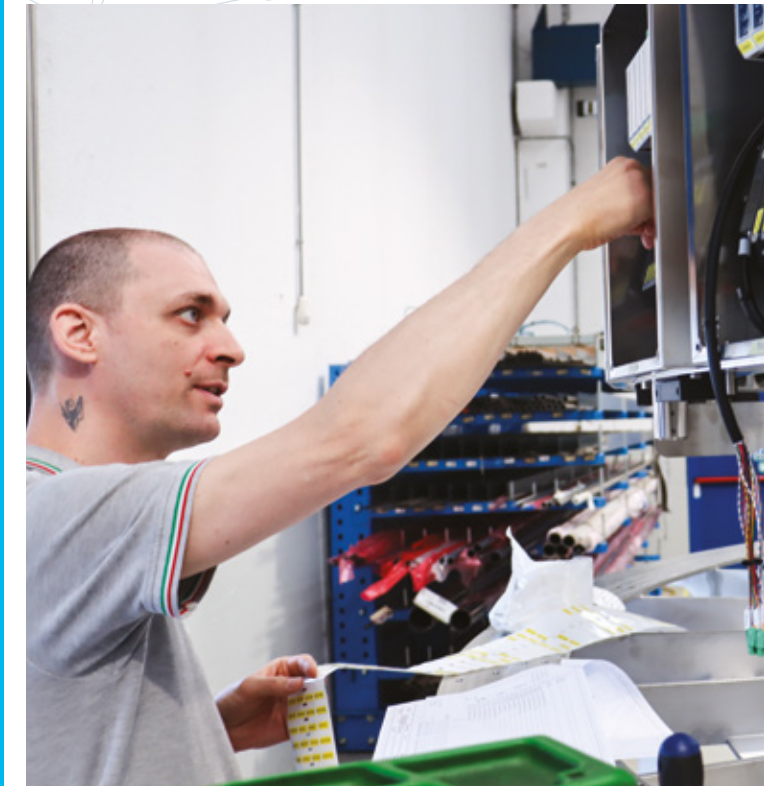
Continuous innovation has always been the fundamental aspect of the company's mission, thanks to which ENOBERG is now able to offer a wide range of technologically advanced plants and systems that easily and effectively adapt to the needs of the market.

Since 1984, ENOBERG has successfully catered to an international clientele in the beverage, food, household cleaning and personal care sectors.

Over the course of 40 years of activity, the company based in Telgate (in the province of Bergamo) has always been at the side of customers, offering increasingly innovative solutions in line with market evolutions. Each year has been characterised by a series of technical evolutions, which over time have allowed the transition from filling machines that used pneumatic actuators to today's cutting-edge technological solutions. Since 2016, the year in which ENOBERG became part of the SMI Group, the company has started a complete restructuring of its plant and has increasingly focused on the design and manufacture of high-quality machines for bottling both still and carbonated beverages to meet production requirements up to 55,000 bottles/hour.

➤ TODAY, THE ENOBERG PRODUCTION RANGE BOASTS NUMEROUS STRENGTHS:

- high level of hygiene, thanks to the machine table inclined towards the drainage points, the electrical and pneumatic components isolated in special sealed boxes and the reduced possibility of contamination
- ease of use of the systems
- reduced dimensions in the line thanks to a compact layout
- reliability and structural solidity
- machine frame made entirely of AISI 304
- filling chamber completely isolated from the transmissions, which therefore do not come into contact with any type of liquid
- high accessibility in extreme safety to the various parts of the filling machines by the operator, with a consequent reduction in maintenance time and costs
- quick format change of bottle guide attachments
- reduced energy consumption.





The most recent developments in research and innovation have led to the creation of models of fillers equipped with a “walk-in” decomposed frame, which allows the operator to easily access the filling and capping sections.



THE KEY BENEFITS OF THIS NEW SOLUTION ARE:

- minimum overall dimensions during the transport phase
- solid and robust construction
- full operator access to the filling block to facilitate all format change and machine maintenance operations
- possibility of complete cleaning of the flooring under the base of the system
- complete visibility of the work area thanks to the large protective glass
- available in various configurations, up to 96 filling valves
- customisable with different options, including top cover, sterile air blowers and aspirators for corrosive vapours.





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