

HENRI EHRHART / TSUMAGOI / REFRESCO
BEPENSA / SOCIÉTÉ DES EAUX DE VOLVIC

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Magazine 2019/22



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EDITORIAL 2019/22

Sustainable development,
a winning strategy!



Sustainable development has advanced in a decisive way until it has become a fundamental aspect of growth strategy for every company, especially now that production processes can count on innovative concepts introduced by IoT and Industry 4.0 technology. Even within the sector of the “food & beverage” industry, the reduction of environmental impact of production and distribution processes has become a priority objective, which has led to the development of numerous solutions. Among the most promising in terms of distribution and growth tendency, are those for making bottles in lighter weight PET, reducing the use of packaging materials, using containers made

from 100% recycled PET (rPet), not to mention the innovative technology introduced into the design of machine and plant projects, which allow greater efficiency and reduced consumption. Innovation, tradition and environment are elements that are increasingly destined to interact among each other, and as can be seen in this issue, when this intersection is guided by strategic vision into the future, excellent results can be achieved in terms of product quality, eco sustainable “packaging”, safeguarding consumer health, environmental protection and the cautious management of resources that are intended for future generations.

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

sminow | magazine

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WHEN HISTORY, TRADITION AND ENVIRONMENT COME TOGETHER, EMBRACING MAGICALLY, THEY GENERATE SOME OF THE BEST PRODUCTS IN VITICULTURE. THIS IS WHAT HAPPENED IN ALSACE THE FRENCH WINE REGION, WHICH IS ONE OF THE MOST FAMOUS FOR ITS WHITE WINES ALL OVER THE WORLD. IT WAS HERE, FROM THE MAGICAL COMBINATION OF THIS UNIQUE LAND AND THE PASSION FOR WINEMAKING, THAT THE HENRI EHRHART WINERY WAS FOUNDED. THIS FAMILY RUN COMPANY, WHICH HAS STRONG TIES TO THE LAND, HAS GAINED AN IMPORTANT POSITION AMONG WINE MAKERS IN ALSACE, THANKS TO ITS ABILITY TO LOOK TO THE FUTURE, ITS CONTINUAL TRANSFORMATION AND BY TAKING GREAT CARE OF ITS CONSUMERS. PASSION, WORK AND RESPECT ARE THE FUNDAMENTAL VALUES FOR HENRI EHRHART, WHO, WITH THE AIM OF OFFERING ONLY THE BEST PRODUCTS TO ITS CUSTOMERS, CHOOSES HIGH LEVEL SUPPLIERS AND PARTNERS TO CREATE STRONG, TRANSPARENT RELATIONSHIPS. FOR EXAMPLE, DURING THE RECENT MODERNISATION OF THE BOTTLING AND PACKAGING LINE AT AMMERSCHWIHR, THE FRENCH COMPANY REQUESTED THE COLLABORATION OF SMI, WHO THEN INSTALLED A NEW WRAP-AROUND CASE PACKER, THE WP 400 ERGON.



➤ **WINE SECTOR**

HENRI EHRHART S. A.
Ammerschwahr, France
www.henri-ehrhart.com

➤ Wrap-around case packer WP 400 ERGON with PID and conveyors



GEO LOCATION

HENRI EHRHART

LOVE OF WINE: A FAMILY TRADITION

The Henri Ehrhart winery gets its origins from the family's love of wine and wine making, which was handed down from father to son for eight generations, until 1978, when Henri Ehrhart decided to turn it into a business enterprise and founded the Ehrhart Ammerschwahr SA company in the heart of Alsace, in an area where you can find the best land to produce quality wines. It was from here that the strong ties to the land were formed, which continue to weave the history of the "maison" and that highlight the steps of its growth. Among the most important of these, we need to highlight the building of the new 900 m² factory in 1990, this was then

expanded to 2.700 m² in 2008, until it finally reached its current size of 4.700 m². 2009 was a year of great changes in the "corporate governance" as Cyrille Ehrhart took over the company management from his father Henri, and the wine expert Laurence Schatz joined. Three years later, the management team of Maison Henri Ehrhart was joined by Cyrille's sister, Sophie Ehrhart, who manages sales and marketing. Today this company in Alsace, by handing down the love of wine from generation to generation, focuses all its activities on the needs of its consumers, so that it can continually improve the quality of its labels and produce class products that are in high demand.



HUMANITY IN THE HEART OF DAILY WORK

The story of the Henri Ehrhart company is not only the numbers of bottles or hectares of land, it is a story written by men for men. A story of men who, as the favourite company motto says, “put humanity in the heart of daily work” to produce wines that are enjoyable, elegant and of quality. The French company is able to create new products by starting from an analysis of what the consumer wants and requires, and then using the results to form a strong relationship. Every decision taken, respects the strong sense of belonging and respect for the land, that marry traditional ways to modern management, thanks to the use of latest generation technology in every step of the production process, such as the WP 400 ERGON wrap-around case packer, supplied by SMI, equipped with a system to insert separator partitions in cardboard.



FROM LEFT TO RIGHT:
SOPHIE EHRHART, RESPONSABLE FOR SALES AND
MARKETING; CYRILLE EHRHART, MANAGING DIRECTOR;
LAURENCE SCHATZ, WINE EXPERT AT HENRI EHRHART



THE HENRI EHRHART ESTATE WINS WITH ITS TEAMWORK, A MAGICAL COMBINATION OF FLAVOURS AND KNOWLEDGE THAT HAS ALLOWED THE FAMILY TO EARN MANY NATIONAL AND INTERNATIONAL AWARDS; AMONG THESE, THE LATEST IS THE "PRIX D'EXCELLENCE PARIS 2019" PRIZE, AWARDED ON 24TH JANUARY 2019, WHICH HONOURS THE COMPANY THAT HAS GAINED IMPORTANT RESULTS IN THE WORLD OF WINE. THE IMPORTANT AWARDS RECEIVED FROM THE CONTESTS OF COLMAR, MÂCON AND LIONE, CONFIRM THE QUALITY OF THE WINES AND THE ENERGY WITHIN THE COMPANY TO INNOVATE WHILE RESPECTING TRADITIONS.



TO TOAST QUALITY!

Uncorking a bottle of wine is a gesture full of meaning, because underneath every cork there is much more than just wine. The cork seals in values, culture, tradition, innovations, enthusiasm, experience and passion. While uncorking a bottle, our senses become alert, we approach the world of wine, the colour of the land and the grapes, the warmth of the sun, the love for the vineyard and wine making, the search for quality but also a mix of ancient history and technology among fatigue and art. Every step of the production process is carried out meticulously, taking great care with every control to obtain a quality product, nothing can be left to chance, as attention to detail is the strong point for this French company. Consumers no longer just want a sip of wine to say that it is good, because quality has become a very wide concept that also depends on lots of other factors. Today, the good wine produced on the Maison Henri Ehrhart estate, becomes noble and high quality only when it is in perfect harmony with the land, with its

➤ PRIX D'EXCELLENCE PARIS: THE AWARD WITHIN THE AWARDS

The Concours Général Agricole (CGA) is a French agricultural show organised within the Paris International Agricultural, this is organised by the Ministry of Agriculture, Food, Fishing, Rural affairs and Territorial management. Every year since 1870, the show has awarded prizes for the best local French food and wines, it is divided into 21 categories, with more than 4,600 products and 16,300 types of wine participating. This contest is a very important event, the aim of which is to be a showcase of the extraordinary biodiversity of nature and French gastronomy. The "Prix d'Excellence" awards prizes such as gold, silver and bronze medals or medals in the shape of an Oak leaf, over the last three years Henri Ehrhart has won 22 gold medals, 11 silver and 1 bronze. This enological contest honours wines from the great wine making regions of France: Alsace, Bordeaux, Bourgogne, Champagne, Corse, Jura, Languedoc-Roussillon, Lorraine, Provence, Savoie, Sud-Ouest, Vallée de la Loire and Vallée du Rhône. Within this contest the "Prix d'Excellence" is called the award within the awards, as it honours only the producers that have achieved the best awards for three consecutive years.

history and traditions and it represents one of the most significant business cards of Alsace, better than many images.



FROM LEFT TO RIGHT:

CYRILLE EHRHART, MANAGING DIRECTOR,
WITH THE FOUNDER HENRI EHRHART.



A FAMILY UNITED IN TASTE AND QUALITY

Henri Ehrhart's family is a beautiful family, with common values and where business decisions are made collectively. The Ehrhart family estates yield treasures of taste and harmony. It's impossible to make a mistake when there is enthusiasm, energy, quality wine making and great technology. Put together, these elements can only bear great wines, especially when the surrounding area is the greatest wine making region in France for excellence. The company, which grew in the shadow of the magnificent hills of Alsace, thanks to the commitment, the love and experience of Cyrille and Sophie Ehrhart and their wine expert Laurence Schatz (assisted by the fundamental contribution of the founder Henri Ehrhart), has developed until it has become the 7th wine producer in Alsace, with an important label for the national and international market. The research for quality, the attention paid to the land, the cutting-edge processing (which guarantee the uniqueness of the product) have allowed this French company to become the number 1 exporter of wines from Alsace, in Japan.



IT'S IMPOSSIBLE TO MAKE A MISTAKE
WHEN THERE IS ENTHUSIASM, QUALITY
WINE MAKING AND GREAT TECHNOLOGY.



HENRI EHRHART S. A.



Year of Founding: 1978



Turnover 2018: € 15.5 million



Employees 2018: 14 people



Annual production: 6 million bottles



Vineyards owned: 7 hectares



International distribution: Number 1 exporter of Alsace's wines in Japan



French distribution: Number 7 in Alsace

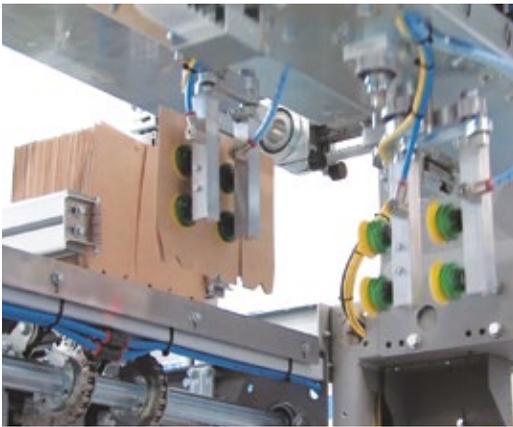




SMI SOLUTIONS FOR HENRI EHRHART



The growth that Cyrille Ehrhart has brought to the company, made it require a more efficient and modern production plant, that needed bigger spaces to accommodate new bottling and packaging systems, designed according to the innovative concepts of the “smart factory”. The wrap-around case packer installed there, is equipped with the optional PID device to insert stretched board pre-assembled partitions into the cardboard boxes, to protect the glass bottles from damage or breakage and to protect the labels from possible abrasions.



➔ **WRAP-AROUND CASE PACKER WP 400 ERGON**

Packed products: 0.375 L / 0.5 L / 0.75 L / 0,76 L / 1.0 L glass bottles.

Packs worked: the bottles are packed in wrap-around corrugated cardboard cases in formats of 2x3 and 3x4 with and without separator insertion.

Main advantages:

- procedure of packaging with the wrap-around system to make the cardboard case and close the product inside. This system allows wide flexibility of use, high production speeds, improved stability for the packs and optimises space used for storing packaging materials
 - continuous motion packaging, which guarantees a fluid production process, without any hitches and ensures greater reliability, improved quality of the final pack and reduced mechanical wear and tear on the machine
 - ideal solution to achieve a pack that is resistant to knocks, able to protect the wine bottles during transport
 - the WP ERGON case packers are equipped with fixed guides, which keep the sides of the case pressed at the machine outfeed. This system guarantees that the cases are perfectly shaped and resistant rotary chain pressing systems are not able to provide the same level of quality
-





➤ PID DEVICE TO PROTECT GLASS BOTTLES

Function: The PID SBP and the pre-assembled partition magazine are situated at the machine infeed, above the pack forming section. A mechanical arm equipped with vacuum suckers picks a stretched board pre-assembled partition from the partition magazine, opens it and lowers it between the products below before they have been grouped in the required pack collation, to then proceed to the final step of forming the closed case around the bottles.

Advantages of pre-mounted separators compared to those non-mounted:

- less cost for purchasing separators by around 20%
- less volume of storage by at least 60%
- the size of the case wrapper does not change as the separator magazine and the insertion device are mounted on the top of the packaging machine
- the process for inserting the separators and loading the magazine is fast as these are already pre-mounted
- the maximum working speed is 40 packs per minute (model with 1 head) or 60 packs per minute (model with 2 heads)

➤ CONVEYORS

Function: transporting loose and packed glass bottles; in particular: moving the bottles to the infeed of the WP 400 ERGON case packer and moving the cases at the machine outfeed.

Main advantages:

- the conveyors installed at the Henri Ehrhart plant guarantee that the bottles and cardboard boxes move constantly and fluidly, without any hitches
- modular and ergonomic structure, which easily adapts to various kinds of containers and production flows
- minimum format change over time from one batch to another
- running costs and energy consumption among the lowest on the market



➤ A ROUTE TO DISCOVER THE BEAUTY OF ALSACE

The Wine Route is one of the most appealing tours to discover the beauty of Alsace and its traditions, passing through Ammerschwihr, once occupied by the Romans, you will find the estate of Maison Henri Herhart. This route, among the oldest "wine routes" in France, was inaugurated on 30th May 1953 and it winds from North to South Alsace for around 170 kilometres, passing through the magnificent countryside full of vineyards, castle ruins and coloured villages that seem to have appeared from a fairytale. The route is lined with wine cellars offering tastings, that allow visitors to discover the abundance of the regional wines and their unique flavour.

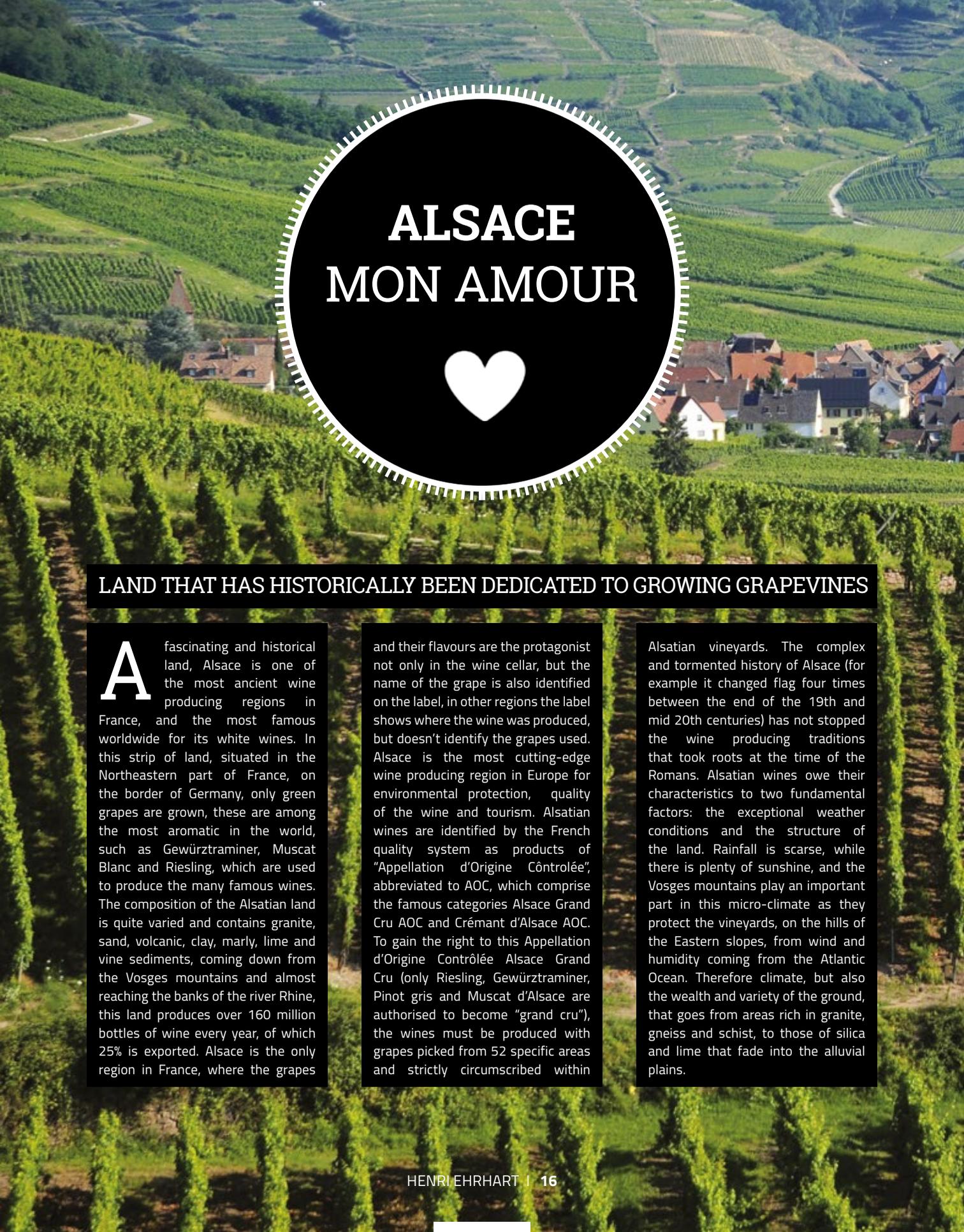
IN ALSACE THERE IS A REASON FOR EVERY DETAIL

Alsace is a region full of surprises and hidden beauty, which offers immense emotions, it is a paradise for nature lovers fascinated by the variety of the countryside, with 21 protected areas and two Regional National Parks, while geologists discover that every rock in the Vosges mountains tells its own ancient story. You become enchanted by the quaint villages, by the famous coloured houses of the “colombages”, by the green valleys and the hills with their precious vineyards, but also by the great historical, cultural and artistic cities like Strasbourg and Mulhouse.

➤ FRANCE AND WINE

France can boast ancient wine making traditions, that were embedded even in ancient times. The history of French wines dates back to around 600 B.C., during this period the Greeks founded what is now Marseilles, then called “Massalia”, and they introduced vine crops. The Romans were the first to develop the potential of the vineyards in France, when they arrived on French territory at the end of the II century B.C. In the VI century, wine making was already deeply rooted and widespread over the French territory, above all by monks who cultivated their vineyards within their monasteries and perfected their wine making techniques over the centuries. The full range of wines produced in the French regions can be found in the famous “Guide Hachette des vins”, an accurate publication that describes the quality of more than 40,000 wines tasted by 1,500 professional experts. There is no need to say that, the wines produced by Henri Ehrhart have been acknowledged by these world famous experts, and are mentioned in every annual edition of the guide.



An aerial photograph of a lush green vineyard in Alsace, France. The rows of grapevines are neatly planted on rolling hills. In the background, a small village with traditional European-style houses is visible. A large black circle with a white dashed border is centered over the image. Inside the circle, the text 'ALSACE MON AMOUR' is written in white, bold, sans-serif capital letters. Below the text is a white heart symbol.

ALSACE MON AMOUR



LAND THAT HAS HISTORICALLY BEEN DEDICATED TO GROWING GRAPEVINES

A fascinating and historical land, Alsace is one of the most ancient wine producing regions in France, and the most famous worldwide for its white wines. In this strip of land, situated in the Northeastern part of France, on the border of Germany, only green grapes are grown, these are among the most aromatic in the world, such as Gewürztraminer, Muscat Blanc and Riesling, which are used to produce the many famous wines. The composition of the Alsatian land is quite varied and contains granite, sand, volcanic, clay, marly, lime and vine sediments, coming down from the Vosges mountains and almost reaching the banks of the river Rhine, this land produces over 160 million bottles of wine every year, of which 25% is exported. Alsace is the only region in France, where the grapes

and their flavours are the protagonist not only in the wine cellar, but the name of the grape is also identified on the label, in other regions the label shows where the wine was produced, but doesn't identify the grapes used. Alsace is the most cutting-edge wine producing region in Europe for environmental protection, quality of the wine and tourism. Alsatian wines are identified by the French quality system as products of "Appellation d'Origine Contrôlée", abbreviated to AOC, which comprise the famous categories Alsace Grand Cru AOC and Crémant d'Alsace AOC. To gain the right to this Appellation d'Origine Contrôlée Alsace Grand Cru (only Riesling, Gewürztraminer, Pinot gris and Muscat d'Alsace are authorised to become "grand cru"), the wines must be produced with grapes picked from 52 specific areas and strictly circumscribed within

Alsatian vineyards. The complex and tormented history of Alsace (for example it changed flag four times between the end of the 19th and mid 20th centuries) has not stopped the wine producing traditions that took roots at the time of the Romans. Alsatian wines owe their characteristics to two fundamental factors: the exceptional weather conditions and the structure of the land. Rainfall is scarce, while there is plenty of sunshine, and the Vosges mountains play an important part in this micro-climate as they protect the vineyards, on the hills of the Eastern slopes, from wind and humidity coming from the Atlantic Ocean. Therefore climate, but also the wealth and variety of the ground, that goes from areas rich in granite, gneiss and schist, to those of silica and lime that fade into the alluvial plains.





TSUMAGOI

THERE... WHERE THE SUN RISES, IS A WORLD TO LIVE AND TO DISCOVER. IT IS NOT EASY TO DESCRIBE THE BEAUTY OF THE SCENERY, THE POPULATION AND THE EMOTIONS THAT CAN BE FELT IN THE LAND OF THE RISING SUN, JAPAN, WHOSE NAME DERIVES FROM "NIHON" OR "NIPPON" (WHICH MEANS "ORIGIN OF THE SUN"). THE NAME WAS GIVEN TO THIS LAND BY THE CHINESE AS JAPAN IS EAST OF CHINA AND EVERY MORNING THE SUN RISES FROM THAT DIRECTION. FULL OF BEAUTIFUL, NATURAL SCENERY, JAPAN IS MADE UP OF A MYRIAD OF ISLANDS (IN TOTAL THERE ARE 6,852), OF WHICH FOUR MAIN ONES, AMONG THESE THE ISLAND OF HONSHŪ IS THE LARGEST, WHERE APART FROM THE CAPITAL TOKYO, THERE ARE OTHER IMPORTANT CITIES SUCH AS HIROSHIMA, KAWASAKI, KŌBE, KYOTO, NAGOYA, NARA, OSAKA, SENDAI AND YOKOHAMA. IT IS SO WIDESPREAD THAT LOCALLY IT IS CALLED "THE MAINLAND, THE ISLAND OF HONSHŪ (AROUND 100 MILLION PEOPLE LIVE ON THIS ISLAND, THAT IS 75% OF THE JAPANESE POPULATION) IS ALMOST COMPLETELY MOUNTAINOUS AND IS CROSSED BY THE HIGHLY VOLCANIC MOUNTAINOUS CHAIN HOME TO MOUNT ASAMA, THE MOST ACTIVE VOLCANO IN JAPAN. MOUNT ASAMA RISES IN THE VICINITY OF TSUMAGOI, IN THE PREFECTURE OF GUNMA, AN AREA RICH WITH WATER SPRINGS, LIKE THAT OF THE TSUMAGOI MEISUI CO. LTD BOTTLING COMPANY. TO FACE THE INTERNAL GROWING DEMAND FOR MINERAL WATER UNDER THE TSUMAGOI AND OKU-KARAIZAWA BRANDS, THIS COMPANY TURNED TO SMI FOR THE INSTALLATION OF A STRETCH BLOW-MOULDER EBS 3 K ERGON FOR THE PRODUCTION OF 0.32 L, 0.41 L AND 0.5 L BOTTLES IN PET.

- **WATER SECTOR**
TSUMAGOI MEISUI CO. LTD.
Tsumagoi-Mura, Gunma Prefecture, Japan
- Stretch-blow moulder EBS 3 K ERGON



GEO LOCATION

BEYOND NATURAL WATER

The Tsumagoi Meisui Co. Ltd production plant is situated on a plateau at 1,290m above sea level at the foot of Azumaya (2,354m), one of the 100 most famous mountains in Japan, in winter its peak is covered by several meters of snow, which, when this melts, penetrates into the subsoil reaching deep into the mountain, to become a source of water that is not only high quality, but also rich in nutrients. It is from this area,

that the Japanese company obtains the natural mineral water that it bottles, extracted by modern plants, from a 250m deep underground well. "Beyond Natural Water" is the slogan used by Tsumagoi Meisui to highlight the importance of preserving this precious, natural gift from Nature, which, thanks to the sophisticated bottling technology that respects the environment and to the strict quality control systems, reaches the consumers' table intact and uncontaminated.



➔ BETWEEN FAIRYTALES AND REALITY

At about an hour by train from Tokyo, the skyscrapers and the enormous buildings of the metropolis give way to the mountainous scenery of the Karuizawa uplands, a landscape that is characterised by dense larch woodland, that looks as though it has appeared from a fairytale. The Oku-Karuizawa plateau (1,300 m asl), near the Asama volcano and at the feet of mount Azumaya (one of the 100 most famous mountains in Japan), is one of the classiest summer holiday resorts in the country. There are numerous, small town "Onsen" (natural thermal springs), as the area is full of important water springs. Natural water is collected from one of these springs that flows at 250m underground, and is bottled by the Tsumagoi Meisui company. This water is extremely pure, with no radioactive traces or chemical agricultural substances, it is formed by the snow that melts, penetrates into the ground and undergoes a long filtering process. This water, which has properties that remain unchanged throughout the complete production process, has a constant temperature all year round of 9° C, it is very light (for this reason it is ideal for preparing tea, coffee and various dishes) it is slightly alkaline, with a PH of 7.6 like our body PH, furthermore, it is particularly suitable for infantile nutrition as it has low percentages of magnesium and calcium.

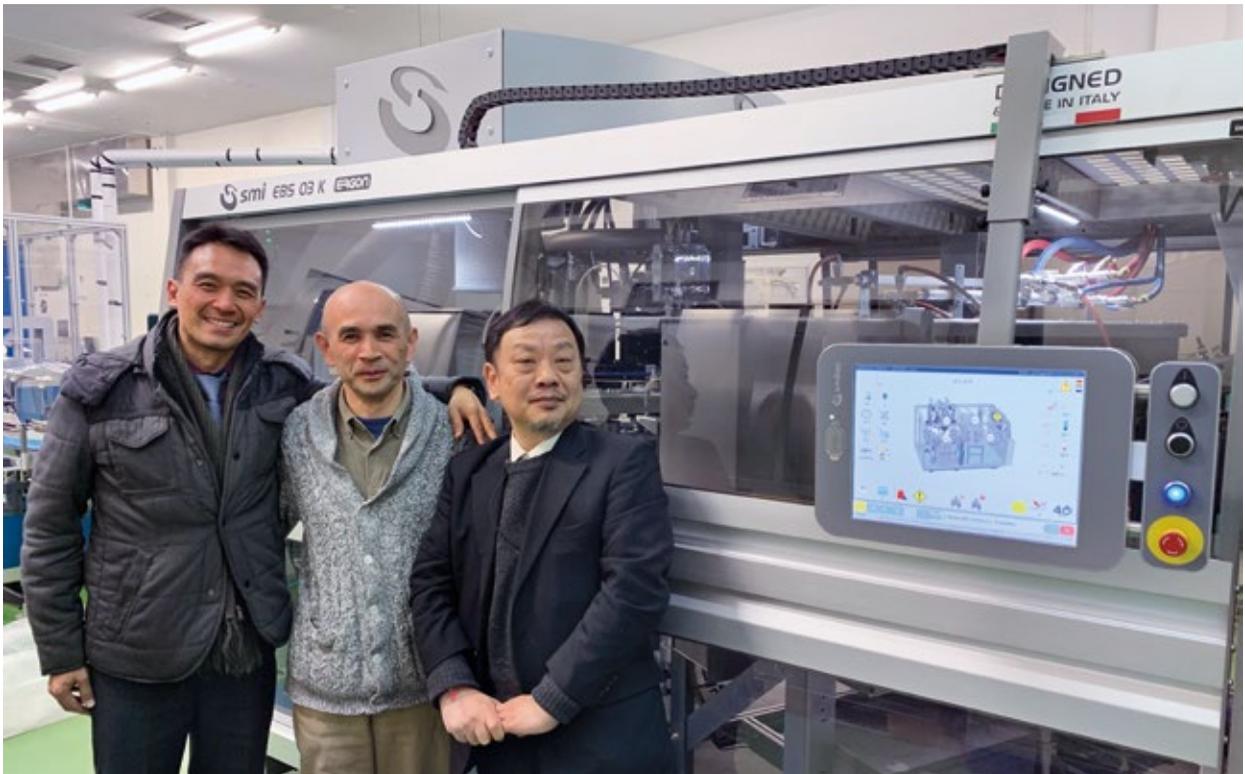


INVESTING TO BE MORE PROMPT

The strong growth of the bottled water market in Japan, has made it necessary for Tsumagoi Meisui to expand. In July 2018, to be able to face an increase in production, the need to reduce delivery time for the water in PET bottles under the brand Tsumagoi and Ok-Karauizawa, the Japanese company invested in a new EBS K ERGON stretch-blow moulder. This new installation, supplied by SMI, was installed in the existing factory in the town of Tsumagoi, District of Agatsuma (Prefecture of Gunma), it was designated for the production of water and is equipped with the most modern technology within this sector.



FROM LEFT TO RIGHT:
SHIFANG HONG, SALES MANAGER AT SMI; MINORU TOYOTA, PRESIDENT OF TSUMAGOI;
YOSHIKI MAEDA, SALES MANAGER AT CORRENS (SMI REP IN JAPAN).



INVESTING TO BE MORE EFFICIENT

Increasing storage capacity and reducing distribution costs are the presuppositions for increasing production efficiency within a bottling plant. The third plant belonging to the Japanese company, Tsumagoi Meisui, inaugurated in December 2018, was built with the aim to store products coming from the other production lines in the other two plants. However, various reasons, such as the strong growth of the request from the Japanese market for bottled water and the necessity to upgrade the production structure, pushed the company into also investing in a new bottling line. The production volume of the existing line was around 120,000 cases per month, and now thanks to the new SMI machinery, which was recently installed, they will be able to reach a capacity of 150,000 cases/month. The storage capacity of this third plant will not only allow Tsumagoi Meisui to store up to 20 days of production, it will also reduce logistic costs by around 6%, by eliminating storage and transport costs between the five warehouses they had previously rented.

FOCUS ON THE THIRD TSUMAGOI-MURA PLANT



Area occupied: 20.178 m²



Construction began: May 2018



Activity began: December 2018



Effective storage capacity: around 180,000 cases



Capital invested: around 700 million yen



SMI SOLUTIONS FOR TSUMAGOI



Before being installed at the Tsumagoi plant, the new EBS 3 K ERGON stretch-blow moulder was presented to the Japanese “food & beverage” market during the important Drink Japan 2018 exhibition, held in Tokyo in June, and where it received interest and approval from a high number of visitors. SMI were present at the exhibition in partnership with Correns Corporation, their local representative.





➤ **STRETCH BLOW-MOULDER EBS 3 K ERGON**

Functions: stretch-blow moulding of 0,32 L and 0,5 L bottles in PET with a square base and 0.41 L and 0.5 L cylindrical bottles with a production capacity of up to 6,000 bottles/hour.

Main advantages:

- high efficiency rotary stretch-blow moulder equipped with motorised stretch rods (usually used for high speed production), which presents outstanding advantages compared to linear blowers and guarantees the precise management of the stretch rod cycle and accurate control of their position, as well as having significant energy saving
- ultra-compact system: the preform heating section (oven) is integrated within the stretch-blow moulding section (carousel) in a single very compact module, which makes this system suitable even for bottling lines with reduced space
- reduced blower energy consumption, thanks to the preform heating module, equipped with high efficiency IR lamps and the stretch blow-moulding module equipped with air dual recovery system that allows the reduction of energy costs tied to the production of high pressure compressed air
- the structure, that surrounds the oven and the carousel is equipped with slightly rounded protection doors, which provide more space inside the machine so that cleaning and maintenance can be carried out easily and safely
- the stretch-blow moulding system uses high performance low deadvolume valves, that reduce pre-blowing and blowing times, therefore improving efficiency and the quality of the bottles produced
- the machinery is managed by the MotorNet System® for automation and control, which ensures constant maintenance of optimum processing parameters, throughout the entire production cycle and the direct modification of the machine settings, thereby simplifying format changeover operations.

↑ **ABOVE:** THE STAFF FROM TSUMAGOI DURING THE FACTORY ACCEPTANCE TEST (FAT) IN SMI



ONSEN: THE ANCIENT SPA TRADITION IN JAPAN

The prefecture of Gunma, situated North-east of the Kanto plain, in central Japan, is famous for its magnificent natural scenery and for the large number of high quality “onsen” (thermal springs). The “onsen” heated, natural thermal

springs, rich in minerals from the volcanoes, are a very popular tourist attraction for the Japanese. There are over 3,000, scattered around the country, in the mountains and also on the coast where they can also be found under water.

They can be indoors or outdoors, for men or women only, or rarely for both, municipal or in luxurious, traditional inns, made in stone or wood but in all of them you can take a step out of time and return peaceful and regenerated.



Mount Azumaya was formed by an eruption of the Azuma volcano, over 350,000 years ago, which divided the mountains between Mount Azumaya and Mount Neko. A winding road, very popular with excursionists, allows travel through the mountains to discover the natural countryside with its unique beauty.

Mount Azumaya is one of the external rings of the volcanic caldera of the Azumaya volcano, which was active from 750 thousand to 200 thousand years ago and which, through erosion, created the "Yonago Falls", one of the 100 most famous waterfalls in Japan. The external ring of the mountain extends for a diameter of 3 kilometres and covers the Nekodake (2,207m) and Urakuratake (2,090 m) mountains.



The area near the Tsumagoi factory is abundant with water, like the "Shinshu falls" formed by streams from the mountain, and Lake Baragi situated South, which is replenished by melted snow.



WHEN THE CONTAINER BECOMES COMPETITION

Over the last few years, the ruthless competition between companies in the mineral water sector has increasingly evolved around the price of the product, that needs to be low but high quality for consumers, therefore to be able to maintain or increase their share of the market, bottling companies need to develop innovative solutions that are able to reduce production, running and distribution costs. All this requires careful analysis of the characteristics and performance of the bottles in PET that are used, analysis that persuaded the Japanese company Tsumagoi Meisui to create new containers that optimise the combination between the volume of the bottle blown by the SMI rotary stretch-blow moulder EBS K ERGON and the number of bottles contained in the cardboard box. Among the best formats, to reduce storage and distribution costs, Tsumagoi Meisui chose 0.32 L and 0.5 L square based bottles in PET and 0.41 L and 0.5 L cylindrical bottles.



THE DESTRUCTIVE FORCE OF VOLCANOES

Gunma is a prefecture on the Japanese island of Honshū, it is landlocked and owes its fame to the thermal springs (onsen) and the skiing areas. The small town of Kusatsu has more than 100 thermal springs, the most famous of which, Yubatake, has a large swimming pool fed by smoking thermal water which flows down a wooden slide. Tsumagoi is in the Northeastern corner of the prefecture and due to its high altitude and the ash deposits from Mount Asama (2,568 m), its land is very fertile and well known for its cabbage crops. In the prefecture of Gunma you can visit the archaeological ruins of a powerful, volcanic eruption from Mount Asama that, at the end of the 18th century, hit the residents of Kanbara, a small town hidden among sloping hills and fields, throwing ash, rocks and magma on the whole area. The cataclysmic eruption, one of the most documented natural disasters in modern Japan, lasted four months and detonated a high speed avalanche of hot gas and debris which, as in Pompeii (Naples, Italy) devastated the local agricultural community.

The potential destruction of Mount Asama is well known to the residents of Kanbara, the majestic volcano that hit the village at the end of the 18th century, while the volcano threw its terrifying quantity of boulders, rocks and magma onto the village below, it sent out a disturbing, warning rumble. The population had very little time to escape from the unpassable wall of earth that, travelling at incredible speed, hit the town in just a few minutes, swallowing up the fleeing inhabitants and burying houses, shops and fields under mountains of debris, this can also be seen from the excavations carried out in 1979, which brought to light the skeletons of two women who were trying to flee.



➔ FROM POMPEII TO TSUMAGOI

Since 2012, the city of Pompeii (in the vicinity of Naples, in Italy) and the Japanese town of Tsumagoi have been bound by a pact of friendship, a commitment of exchange that is not only cultural, a sign of common fate in the shadow of two volcanoes - Vesuvius and Asama Yama - capable of making the surrounding land fertile, but capable also, of propagating death and destruction. The twinning, sanctions the great interest that Japan has for the Italian city, which can also be seen by an important archaeological exhibition on Pompeii, in Japan, that enchanted millions of visitors for a year and a half. The twinning is also a sign of a friendly collaboration to promote initiatives between two realities that are so very different geographically and culturally, but at the same time are so similar. This is not a small detail for a town with less than twenty thousand inhabitants, that in 1783 was destroyed by a disastrous eruption by Mount Asama, very similar to that of Mount Vesuvius which, in 79 B.C. Destroyed Pompeii and Herculaneum and killed thousands of people.



WHERE EVERYTHING REVOLVES AROUND NATURE

The economy in Tsumagoi-Mura revolves around nature, especially in the form of water sources and agriculture, the most famous local crop is cabbage, which is so widespread that cabbage green dominates the countryside that surrounds the city, so much so, that it attracts the eyes of tourists that never fail to stop to take a snap of the cabbage fields. Tsumagoi-mura is the number one producer of this vegetable in Japan, its growth is

facilitated by the cold weather conditions of this area. The Japanese name for cabbage is "Tamana", which means "ball of vegetable", just like the shape of this fresh, slightly sweet vegetable. It is one of the main ingredients of Japanese cuisine, it can be eaten all year round, it is a cheap product that is versatile and used to give nutrition and taste to a wide range of dishes. Often it is cut into narrow strips to be served with korokke, tonkatsu (breaded cutlet of fried pork) or with other fried food.





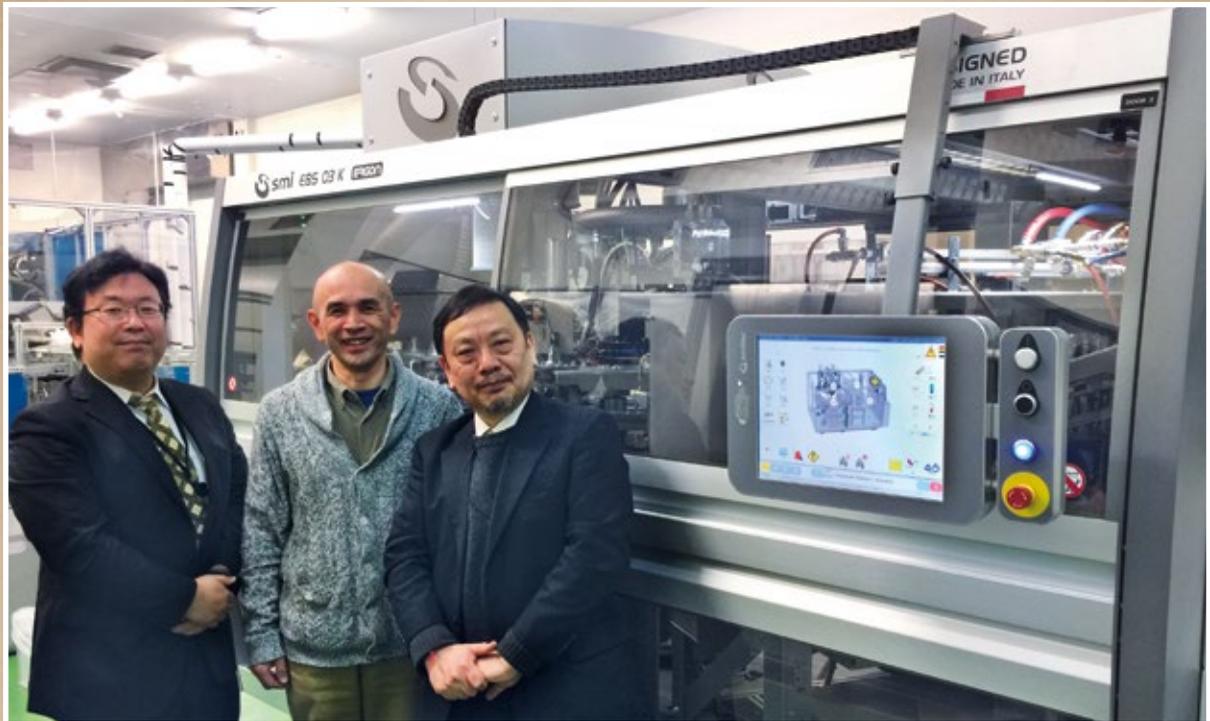
➔ **350 KM OF ROMANTIC VIEWS**

The most romantic and scenic road in Japan can be found in the Prefecture of Gunma. It is the Japanese version of the German "Romantische Straße", it runs for more than 350 kilometres, starting in the city of Ueda, in the Prefecture of Nagano, where you can visit the ruins of a castle and the oldest spa centre of the area, and then winding through the mountains it reaches the city of Utsunomiya, in the Prefecture of Tochigi. Along the route there are lots of quaint places, like Karuizawa the village on the water, lots of natural landscapes one of which the thermal hot water spa of Kusatsu, numerous active volcanoes and the UNESCO site of Nikko.



A WORD WITH THE CUSTOMER

→ INTERVIEWING MINORU TOYOTA President of Tsumagoi Meisui Co. Ltd.



↑ **FROM LEFT TO RIGHT:** HIROMASA SUZUKI, SALES DEPT. AT CORRENS; MINORU TOYOTA, PRESIDENT OF TSUMAGOI; YOSHIKI MAEDA, SALES MANAGER AT CORRENS

Q: What is the key to success for your company?

A: Without a doubt one of the main factors of our recent success was the opportunity offered by new sales channels, or more precisely, we changed from a traditional type of "business", that of selling our products through distribution points, shops and supermarkets, to one of "e-commerce", managed directly by head office.

Q: What are the current market trends for your reference sector?

A: In the world of mineral water the main criteria of consumer choice, is represented by the price of the product. In fact everyone, final consumers or the bottlers (in the case of working with third party), ask us for cheap products. For this reason Tsumagoi Meisui Co. Ltd, the same as every other company which bottles water, needs to compete on the market by keeping the production costs and sales prices low, and with this aim, developing innovative solutions that are able to offer products that are increasingly competitive.

Q: What are the main factors that led Tsumagoi to invest in a new stretch-blow moulder supplied by SMI?

A: The main factor that led us to choose an SMI system, rather than another brand, was the compactness of the machine from the EBS K range. The new range of SMI blowers stands out from others, with its unique, compact module that integrates the preform heating section (oven) with the stretch-blow moulding (carousel), this technical configuration fits perfectly within the available space inside our production factory.

➔ **ON THE RIGHT:** MATTEO PESENTI, SERVICE AREA MANAGER AT SMI (ON THE LEFT) WITH THE STAFF OF TSUMAGOI DURING THE FACTORY ACCEPTANCE TEST

BELOW: THE TSUMAGOI BLOWER ON SHOW AT THE "DRINK JAPAN 2018" EXHIBITION



Q: According to you what are the main challenges for future expansion?

A: The biggest challenge that we need to face for future growth, is certainly the development of solutions that guarantee the best combination between "bottle capacity and volume" and "the number of bottles in a cardboard box", with the aim of optimising storage and distribution operations and reducing their costs.

Q: What were the biggest challenges that in the "business" of mineral water Tsumagoi has overcome?

A: Working with head office, we faced and overcame a demanding program to reduce the physical costs of distribution, the success of which depended on the creation of new bottles in PET with particular characteristics, which reduced the cost of packaging materials, such as bottles without labels.

Drink JAPAN 2018
3rd Int'l Beverage & Liquid Food Development / Manufacturing Expo



➔ VOLCANOES IN JAPAN

Japan is known as the homeland of volcanoes, with 108 active volcanoes out of a global 1,500, it has 10% of the most dangerous volcanoes in the world. In Japan, these giants of nature are classed into categories that range from A to C according to their danger and volcanic activity. Class A is the most dangerous and the most active with volcanoes that erupt more than 400 times per year, that is, more than once a day. The seismic activity tied to volcanoes is often the cause of numerous and powerful earthquakes that periodically shake Japan. Thanks to cutting edge anti-seismic building technology these events fortunately, have limited effect on the safety of the population within that area. Mount Asama is the most active volcano, on average it erupts every ten years, that is around 50 eruptions in the last five centuries. The most devastating happened in 1783 and caused the death of over 1,100 people and serious consequences for the following four years, the ash and the gases that it expelled into the stratosphere caused a fall in agricultural production and famine which led to more than 20,000 people losing their lives. The most spectacular eruption happened in 2004, when the smoke reached Tokyo, 90 miles away, damaging lots of crops and starting fires in the woods. At the moment the volcano is under constant control because it is thought that another eruption is imminent, therefore, as a precaution, it is forbidden to go within a 4 kilometre range of the volcano's slopes.



REFRESCO FINLAND OY

In a country that is scarcely populated like Finland, it is possible to lose yourself in your own thoughts or let yourself be enchanted by the breathtaking views, a true blue maze of lakes, island, rivers and canals, interrupted by green woods, that extend for hundreds of kilometres in an incredibly beautiful, peaceful stretch of landscape. This is the largest lake district in Europe, the “Lakeland”, the heart of Finnish identity, whose capital, Kuopio, is famous for its thousands of lakes, the beauty of its nature, the lively events, the rich culture and friendly hospitality. Hospitality that is felt everywhere, even inside the Refresco Finland Oy bottling factory, the leader in Finland for co-packing juices, soft drinks, water, energy drinks and other non-alcoholic beverages for private labels, in addition to a wide range of products under its own brand. Imagination, efficient management and strong competitiveness are the fundamental aims at Refresco Finland Oy, the achievement of which is possible through the use of highly innovative bottling and packaging solutions, that are top quality and respect the environment. To automate and optimise the production process and reply to their customers’ requests for personalised “packaging” solutions while maintaining market trends, the Finnish company decided to invest in the purchase of a latest generation automatic packer CSK 50P ERGON supplied by SMI.



➤ **SECTOR SOFT DRINKS**

REFRESCO FINLAND OY

Kuopio, Finland

www.refresco.fi

➤ Shrink wrapper CSK 50P ERGON



GEO LOCATION



Refresco

EXPERIENCE AND PROFESSIONALISM AT THE SERVICE OF THE CUSTOMER

The mission at Refresco Finland Oy is to be the strongest, most flexible company in Finland that produces, juice, soft drinks, water, energy drinks and other non-alcoholic beverages. The company from Kuopio, is part of the Dutch multinational Refresco Group (the largest independent bottler

in the world), which produces and sells a wide variety of private labels and offers its experience and professionalism within the industrial sector in Europe, North America and Mexico. In addition to managing the entire production chain, the Finnish company offers lots of services to the “private labels” with which it works, from developing an idea to its

implementation, from the development of the product to its bottling and packaging, from storage to logistics, while keeping an eye on continual innovations in terms of products, packaging and raw materials. The strength of the Refresco Group lies in the way that it operates, based on imagination, competitiveness, affordability and investing at large



FROM LEFT TO RIGHT: ILPO METSO, MANAGER FOR DEVELOPMENT AT REFRESCO; CARL BYRON ARMSTRONG, F.A.T. ENGINEER AT SMI; SAMI KOKKONEN, MANAGER FOR DEVELOPMENT AT REFRESCO.



REFRESCO FINLAND OY

**Year of Founding:** 1996**Turnover 2018:** around € 65 million**Industrial area:** over 22,000 m²**Group:** Refresco Group (since 2004)

scale, allowing the continual growth of its portfolio of products and the development of new systems to improve the production process in terms of offer quality, reduction of costs, energy savings and environmental safeguarding.

In addition to the wide range of products produced for third parties, Refresco Finland Oy markets a wide range of its own brand such as:

- **Vip:** juices, soft drinks, mineral water, syrups and seasonal products like vin brulè and mead
- **Snadi:** juice brik packs
- **Rodeo:** energy drinks
- **Wipu:** fruit juices
- **Sunpride:** fruit juices

Refresco

“CO-PACKING” AT ITS BEST MADE TO MEASURE SOLUTIONS FOR DEMANDING CUSTOMERS

Refresco Finland includes a wide variety of customers and supplies innovative, bespoke solutions, able to satisfy not only global retailers but also private brand customers. Equipped with modern technology and vast experience within its reference sector, the company has always been on the front line for co-

packing high quality products like water, soft drinks, fruit juice, tea and nutritional supplements. Customers are at the centre of every activity at Refresco Finland and, thanks to this continual collaboration, it is able to put new products on the market in very short time, to help its customers face new market challenges, reply to change and modernise continually .

Thanks to the high technology of its plants, the variety of “packaging” solutions available, to the quality control system, which meets the highest national and international standards, and a structure that is strongly inclined towards “project development”, Refresco Finland Oy represents the ideal partner for every industrial operator





within the “food & beverage” sector who wishes to modernise the image of their products. The Finnish company has gained consolidated experience in transforming the needs and requests of its countless, diverse customers with high quality proposals, guaranteeing the achievement of the objectives within budget and lead times. Refresco offers complete services to its customers, these include every aspect of the production process, from planning to the supply of the product, from storage to shipping. The modern technology, used in the bottling and packaging plant at Kuopio, place the Finnish company at the summit of their reference sector, in terms of the quality and reliability of the food products that are produced in their plant, which are sold in a wide, diverse range of formats: PET, glass, can, brik and pouch. The innovative method for sterile bottling, for which the Refresco Group is well-known, much appreciated in all Europe, guarantees that the product has a long “shelf-life”, without compromising the quality of its food properties, in terms of authenticity, reliability and conservation.

➤ REFRESCO GROUP

Refresco Finland Oy is part of the Refresco Group, the main European producer of soft drinks and fruit juice for retailers and owners of private brands, which in January 2018 took over the bottling activities of the American company Cott. Thus becoming the largest, independent bottler of the sector in Europe and North America and one of the first five in the world. With 59 factories and more than 250 production lines in Benelux, Finland, France, Germany, Spain, Italy, United Kingdom, Poland and the United States, this conglomeration with head quarters in Rotterdam, possesses vast experience in the “supply chain” sector and has an extraordinary capacity for innovation and development. This Dutch, multinational group employs more than 9,500 people in Europe and the USA, produces 11 billion litres of beverages annually and in 2018 generated a revenue of around 3.7 billion euro. The company is able to develop new products and put them on the market, thanks to the close cooperation with its customers regarding market trends, preferences of local consumers, product formulas, raw materials used and new technology for bottling and packaging. The Refresco Group supplies efficient, competitive, complete, turnkey solutions, that stretch from production planning to the supply of the raw materials and from packing to the storage and delivery of the finished lots, providing their global customers with the expertise and “know-how” that they have acquired in over twenty years of activity. Focusing on innovation, the Dutch company aims to continually improve the quality of its products and “packaging” solutions, offering a wide range of fruit juices, carbonated beverages and mineral water.



SMI SOLUTIONS FOR REFRESCO FINLAND OY



The installation of a new, compact, wrapper from the CSK range seemed to be the most suitable choice to automate and optimise the end of line, secondary, packaging process as the range of these cutting edge technology machines, stand out for their advanced automation, flexibility of use, low energy costs and respect for the environment. The CSK 50P ERGON installed at the factory in Kuopio, packs different types of bottles in PET in numerous pack formats in pad+film and film only. The CSK ERGON range includes single and twin lane models, with a compact and ergonomic design that contains the best technology on the market for shrink wrapping at a maximum speed of 50 packs/minute in single lane and 50+50 packs/minute in twin lane (speed is variable according to the size of the container and the pack format).



➤ SHRINK WRAPPER CSK 50P ERGON

Packed products: 0.33 L / 0.4 L / 0.5 L / 1.5 L bottles in PET.

Packs worked: format 4x3 film only for 0.33 L, 0.4 L and 0.5 L bottles.; format 3x2 film only for 0.5 L and 1.5 L bottles; 6x4 film only and 6x4 pad + film for 0,33 L bottles; numerous other format configurations organised for the future.

Main advantages:

- packer equipped with a motorised system of oscillating laning guides at the machine infeed, which facilitate the correct laning of loose product on the conveyor which is made of low friction coefficient thermoplastic
- grouping of loose products in the format required achieved continually thanks to electronically synchronised fingers and separation guides
- cardboard blank magazine situated under the infeed conveyor from where the sleeves are picked up by an alternate motion cardboard picker, placed at the start of the cardboard ramp, it is equipped with a vacuum suction system set of suckers
- curved cardboard ramp at the beginning and at the end this helps the layer to be inserted under the group of products at the outfeed of the electronic separator
- compact knife group, where the blade is managed by a "direct-drive" brushless motor which makes the cut more precise and simplifies maintenance
- new ICOS motors, equipped with integrated, digital servo-driver, which simplify the machine cabling and ensure greater energy efficiency, less noise and reduced component wear and tear
- shrink tunnel equipped with metal chain optional and lubrication that ensures that the film under the pack is joined perfectly
- optional system to automatically regulate format changeover
- the machine is also equipped with a range of optional devices to guarantee the high level of quality of the final pack, such as the product stabiliser and the additional 1,150 mm conveyor, placed at the tunnel outfeed it allows the packs to cool down



ROMANTIC, NOSTALGIC AND MODERN: THE TRUE STORY OF FINLAND



In Finland, nature is an essential part of the landscape and it is scrupulously protected in all its aspects, as it is the custodian of individual and social well-being and the main element for being calm, relaxed and for movement. Water, woods and rolling hills represent the maximum

expression of Finnish nature: an intimate and evocative experience. The lakes and rivers still establish natural borders. It is here, that the mythical legends of the origins of the Finnish identity appeared, and here along the shores of the lake district, that the country which rose from a farming society to being one of the most famous in the world for its

advanced technology and innovative research, has its roots. It is here that industries began to use the waterways for commerce and to obtain energy, and it is still here, in the lake district, that in recent times, companies have contributed to the greatest structural change to the Finnish economy and to modern industrialisation.

➤ SAILING IN THE HEART OF FINLAND

Sailing on the lakes is the best way to discover this fantastic corner of Finland and an excellent way to relax and enjoy the surrounding nature. Setting sail from the main ports of Kuopio and Savonlinna, on board old steamboats, that in the past were used for carrying goods and which, today, are a tourist attraction. The most interesting destination is Lake Saimaa, an enormous, complex system of water basins which is 4,380 kilometres square, joined by 60 canals and other bodies of water, which let you travel for 300 kilometres, from the city of Lappeenranta, in the South of the country, to Nurmes and Iisalmi, in the hinterland. For people looking for open water, there is Lake Päijänne, the second largest navigable basin in Finland, perfect for yacht competitions. The more sporty can choose a canoe, a way to admire the region in a completely autonomous way and to explore the waters of the National Park of Linnansaari. For lovers of this sport there is nothing better than the "Sulkava Rowing Race", the greatest event in the world of its kind with more than 10,000 competitors each year.



THE LAND OF THE THOUSAND LAKES

At least once in a lifetime you need to take a trip to Finland, because it is from here, that you can admire the wonderful Northern nights for more than 200 nights per year. Lapland is also the only place where you can find special, unique facilities with magnificent saunas or you can choose a “sauna tour”, which pairs the sauna with a dinner of wild game. In summer the landscape in Finland is dominated with blues and greens, in fact, the wooded countryside is dotted with splashes of water and blue oasis that can be found everywhere, from the metropolitan area around Helsinki through to Lapland. It is not by chance, that Finland is called the “land of a thousand lakes”, even if in reality, there are around 188,000 in total, some of the most beautiful views in the world are here, among the most clear, transparent waters on the planet, it is certainly the best place to admire this blue area of the country.

There is a strong bond that joins the Finnish people to water, seeing as how the country is characterised by 188,000 lakes, 700 rivers with 5,000 rapids, 180,000 islands and 4,600 kilometres of coastline. The heart of this country, suspended between land and water, is the great lake district, emblem of the national identity that comes from the close contact with nature and the magical union of the green woods with the blue of the endless bodies of water, often separated from each other by just a sliver of land. Lake Saimaa is situated in the lake district of Eastern Finland, it is the largest in the country and the natural habitat to the Saiaa seals, one of the most endangered animals in the world. Rowing, canoeing, fishing, barbecues, the unavoidable Finnish sauna and swimming are the most popular summer activities around the lake, while in winter you can fish or ice skate.

➤ REFRESKO FINLAND PROTECTS THE NATURAL ENVIRONMENT

Refresco Finland Oy has taken the Finnish philosophy of life as its own, it worries about protecting the natural environment where it operates and it protects its employees. The Finnish company's environmental policy aims at reducing energy and water consumption and protecting the surrounding area in every step of the production process, for example, the cardboard boxes that it uses for packaging are recyclable and the soft drinks are bottled in returnable PET bottles. Thanks to this operation method, Refresco Finland Oy has been awarded ISO 14001 (standard of environmental management) FSSC 22000 (standard for food safety during production processes along the supply chain) certification, which certify the objectives that have been reached by the Finnish company in terms of hygiene, food safety and quality systems and their commitment to guarantee the safety of the consumers.



FINLAND IN FEW NUMBERS

5,530,000 inhabitants

188,000 lakes

200,000 cottages

310 Saimaa seals

1 festival of opera



BEBIDAS INTERNACIONALES BEPENSA

➤ **SECTOR BEVERAGES**

BEBIDAS INTERNACIONALES BEPENSA S.A. DE C.V.
Santiago de Querétaro, Mexico
www.bepensa.com

- Packer SK 602T ERGON
- Conveyors
- Palletiser APS 3090 ERGON



GEO LOCATION



In the city of Santiago de Querétaro, most commonly called Querétaro, the fascinatingly unique, urban architecture, which is a mixture between a big city and a clean and tidy provincial environment, strikes you straight away, it invites you to slow down, to sit on a bench and watch the life of the “Queretense” roll by. This magical atmosphere can be felt while walking through the city, along the abandoned rail tracks, and on the river banks or in the coloured streets of the historic city centre, the magic continues through the night, with the lights from the houses shining on the typical, flowered balconies and it can even be felt during the jazz or classical music concerts that bring joy to the city centre. The magic can also be found in the history of the city, as it was here, two hundred years ago, when the movement for independence from Spanish colonialism began. However, the real magic of Querétaro is that which makes the rhythm of daily life slow down, to have a break and to taste a refreshing cocktail, even better if it is ready to drink, like the “Caribe Cooler” produced in Querétaro by Bebidas Internacionales Bepensa S.A. de C.V. This Mexican company needed to automate its secondary and tertiary packaging process, so it turned to SMI, with which it had been collaborating since 1998, for the supply of a new SK 602T ERGON shrink wrapper and an APS 3090 ERGON automatic palletiser.



READY-TO-DRINK 100% MEXICO



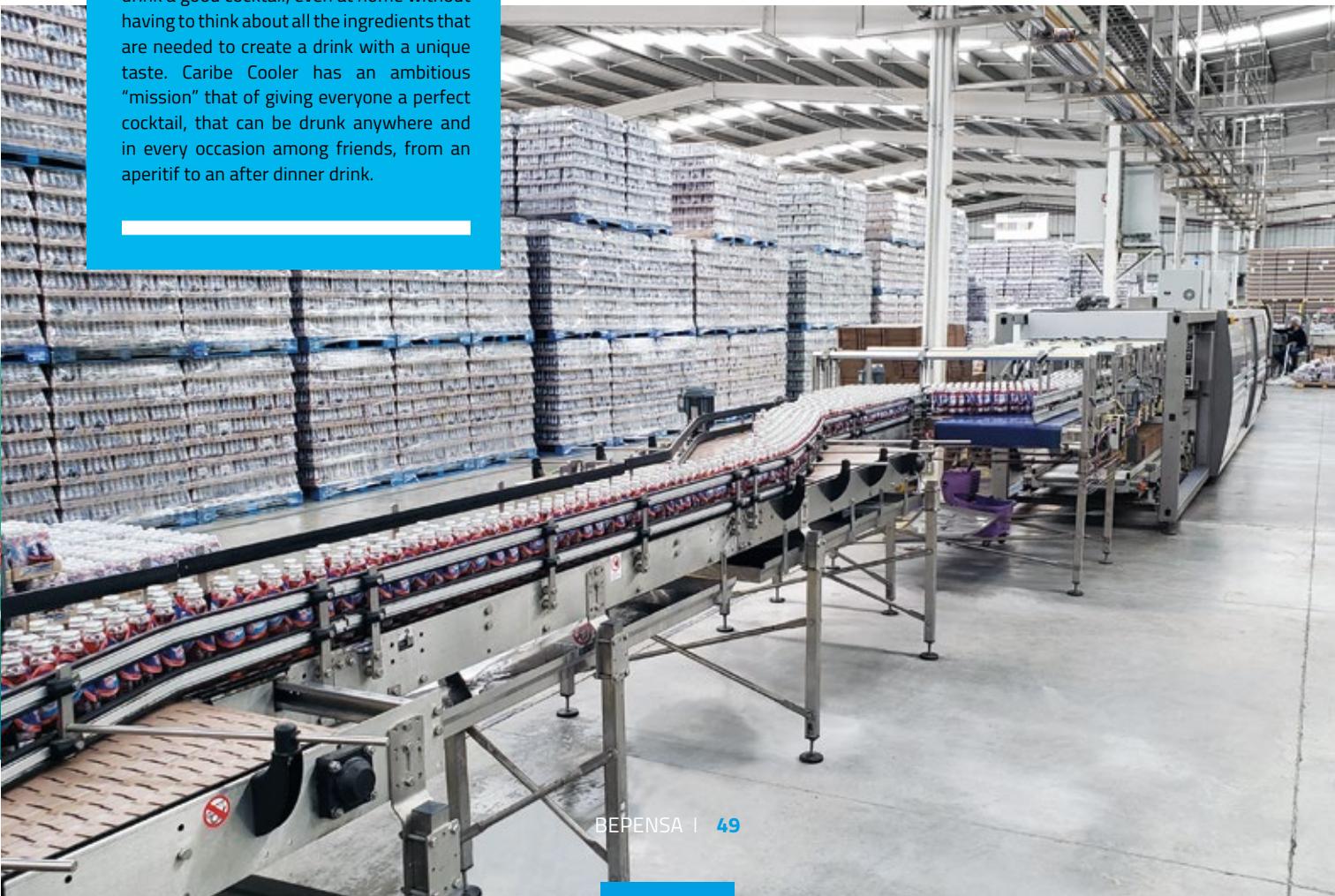
Caribe Cooler, is a brand of flavoured alcoholic beverages with relatively low alcohol content, there are lots of different recipes and mixtures which are able to satisfy the many different tastes of its consumers, it is 100% Mexican and belongs to the “ready to drink” category. The Caribe Cooler brand, which has been on the market for almost 30 years, is part of Bepensa, an important Mexican group with headquarters in the city of Mérida, in Yucatán, who took it over from the French spirit company Pernod Ricard in 2015. This transaction allowed the French group to concentrate on its wine and spirits brands, while Bepensa continues to develop the Caribe Cooler brand on the Mexican market.

➔ TODAY CARIBE COOLER IS IN FIRST PLACE WITH “READY-TO-DRINK” BEVERAGES IN MEXICO AND IT IS VERY POPULAR, ABOVE ALL WITH THE NEW GENERATIONS, WHO CONSUME AROUND 60% OF THE BRAND’S BEVERAGES.



➔ A YOUNG PRODUCT FOR YOUNG CONSUMERS

Caribe Cooler believe that the new generations, lovers of sweet, low alcohol beverages, represent the potentiality to increase the sales of ready-to-drink products, furthermore, the use of this category of beverage is being promoted widely through the main digital channels and social media, and on which the Mexican brand is counting enormously, with its advertising campaigns that highlight how fresh the product is. The take over of Caribe Cooler from Pernod Ricard by Bepensa, brought about a series of continual innovation, in the flavours, the brand and the way that it is presented to the market, starting from the 300ml glass bottle. The growth of RTD (ready-to-drink) products on the market goes hand in hand with the social changes around the world, the habits of young people, the request to be able to drink a good cocktail, even at home without having to think about all the ingredients that are needed to create a drink with a unique taste. Caribe Cooler has an ambitious "mission" that of giving everyone a perfect cocktail, that can be drunk anywhere and in every occasion among friends, from an aperitif to an after dinner drink.



FRESH AND READY TO DRINK!

The category of ready to drink alcoholic beverages is growing all around the world. The launch of new products has increased by an average of 25% over the last three years. Companies within this sector, like Caribe Cooler, are developing products with new tastes that reflect the regional tastes of consumers and satisfy the most varied requests. The main element of the taste and flavours, of the wide range of products by Caribe Cooler, is the freshness, this is created by using ingredients that are able to ensure and enhance the essence of the fruits it contains. The flavours, which have a very expressive personality and a characteristic taste, range from combinations of tropical fruits and traditional flavours like strawberry, peach, mango-pineapple and apple-kiwi, these can be used on their own or as a base to create other delicious drinks. As an invitation to increase consumption, they have produced a book with different recipes to create cocktails and mixes with other beverages or fruits that enhance the product itself.





Caribe Cooler pays great attention to the consumer's preferences and palate, so much so, that the Mexican company is continually modernising and developing new refreshing beverages with a mixture of alcohol (4.7%).



A NEW FACTORY FOR THE NUMBER ONE RTD BEVERAGE IN MEXICO



The Caribe Cooler bottling plant in the city of Querétaro, was opened in November 2016 and was the result of a 250 million pesos (around 12.7 million dollars USA) investment, which was necessary to allow Bepensa to produce 11 million boxes per year, strengthen its presence on the market and create a large number of jobs in the state.

During the inauguration, the General Manager at Caribe Cooler, Gerardo Ruibal Flores, announced that the opening was part of medium term development plans, which foresee that the company will expand with a number of production establishments to satisfy internal requests and also to export to other countries. The history of Bepensa in the State of Querétaro began in 1997, but it was only in 2010, due

to the high growth of consumption in the food and beverage sector, that they had to move to their current site inside the Benito Juárez Industrial Estate, which has an area of 92.000 m² and is home to the activities of the divisions of Bepensa Motriz and Bepensa Industrial. Caribe Cooler is one of the 202 companies within the food and beverage sector, present in the State of Querétaro, that hold a leading position in the production of spumante wine at a continental level. This plant of this Mexican company uses latest generation "green" technology, like materials that exploit sunlight during the day, and natural gas, considered to be clean fuel, to generate steam. On the other hand, sustainability is the fundamental topic for all Grupo Bepensa, which every year has a very detailed program, to promote healthy lifestyles in the company and it places itself as a cutting edge reality, which is an example to inspire future generations to have a more healthy and balanced lifestyle. All this has allowed the company in Querétaro to earn the "Great place to work" award (see photo below right).





BEBIDAS INTERNACIONALES BEPENSA



Years of activity: 70



Turnover: around \$ 1.7 billion



Collaborators: 14,500 people



Number of brands produced: 59



Countries where it is present: 3



**Great
Place
To
Work.®**

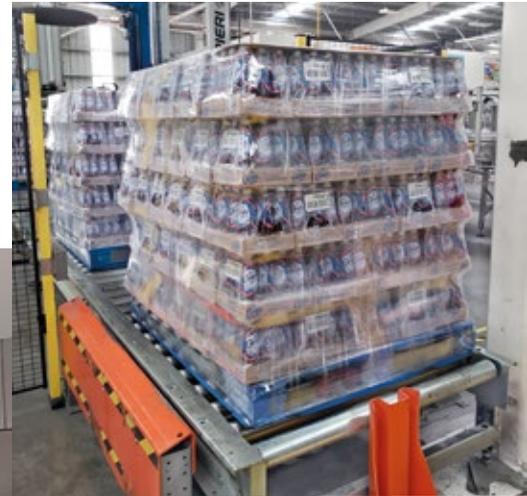


BEPENSA: TOGETHER TO MAKE THE COUNTRY BETTER FOR EVERYBODY

Grupo Bepensa was founded in 1946 at Mérida, in the Mexican state of Yucatán, by Fernando Ponce G. Cantón. Today, Bepensa is a multinational group, with 49 companies grouped together in five sales divisions: beverage, industry, motors, financial services and Caribe Cooler. Overall the group has an annual turnover of around 34.2 billion pesos (that is around 1.7 billion dollars USA) and directly employs 14,500 person (plus another thousand in related sectors), it has production plants in Mexico, in the USA and in the Dominican Republic. Its 59 brand products, many of which are global leaders in their category, aim to satisfy the requests of over 350 thousand customers and millions of consumers in Mexico, in the USA and in the Dominican Republic. The penetrating sales strategy that they adopt, has allowed them to cover practically all Mexico and the Dominican Republic, through more than 1,500 sales

and distribution points. In the “beverage” sector Grupo Bepensa is organised into two important divisions:

- **Bepensa Bebidas**, has 3 bottling plants for soft drinks and 17 plants for water, with a total of 28 production lines. This division produces, sells and distributes a portfolio of 34 brands belonging to the American firm The Coca-Cola Company, refreshing soft drinks and non-carbonated beverages that are suitable for every taste and in every occasion.
- **Bepensa Spirits**, was created from the need to strength growth in the spirits sector and to increase the portfolio of products in that segment. This division (ex Bepensa Caribe Cooler) produces, sell and distributes, on a national level, the products under the Caribe Cooler brand, which dominate the “ready-to-drink” category with its wide range of seven flavours and various special editions.

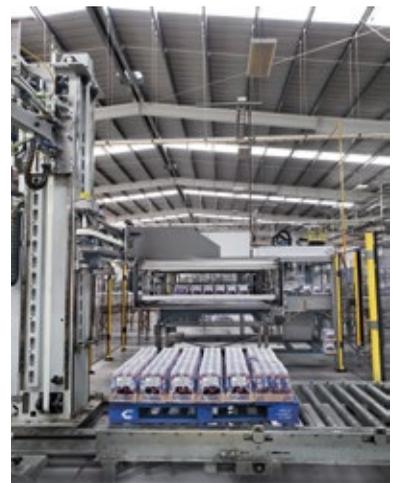


FROM LEFT TO RIGHT: DAVID ARGAEZ, SUPPLY CHAIN MANAGER AT BEPENSA; SERGIO PÉREZ, AREA MANAGER AT SMICENTROAMERICANA AND HUGO JUÁREZ, MAINTENANCE CHIEF AT BEPENSA.



➤ HISTORY THAT GUIDES THE FUTURE

From the start of its activity in 1946, Grupo Bepensa has always been ahead of its time within the sectors where it works, thanks to the vision, leadership and business ability of its founder Fernando Ponce G. Cantón. Every single activity rotates around five strategic pillars: the people, safety, financial regulation, customer service and company responsibility, while at the same time taking into consideration values like respect, loyalty, integration, innovation, leadership and excellence. Today, after four generations, the Mexican company is proud of the results of its challenges, of the recognition from its partners and the appreciation from consumers in the territory where it is present. Bepensa's aim today, is to be a high performance organisation, which offers quality service and products, and which, through its motivated team, the innovations that it has introduced and the technology used, contributes to the wellbeing of society and generates profits for its own development.





SMI SOLUTIONS FOR BEPENSA



A phenomenon that characterises how new generations consume can be seen by the marked growth of RTD (ready-to-drink) products, or rather bottled beverages that have been pre-mixed with low grade spirits. For the secondary and tertiary packaging of 0.33L and 0.75L glass bottles, under the Caribe Cooler brand, Bepensa needed highly flexible and reliable, automatic machines, that can quickly switch from one pack format to another, the same importance, was also given to the quality of the appearance of the final pack and the reduction of costs in energy consumption. For these reasons the machines supplied by SMI to the Mexican company at Querétaro are equipped with optional devices which guarantee the high quality aspect of the packs intended for sale, a high level of eco-sustainability within the production processes and significant energy savings.





➤ SHRINK WRAPPER SK 602T ERGON

Packed products: 0.33L and 0.75L glass bottles.

Packs worked: the 0.33L bottles are packed in formats of 4x3 tray+film in twin lane; 3x2 film only in twin lane and 6x4 tray+film. The 0.75L bottles are packed in formats of 4x3 tray +film and 3x2 pad+film in twin lane.

Main advantages:

- machine equipped with hot blade sealing, additional cooling system and mesh metal tunnel chain
- packer equipped with continuous motion pack formation, this ensures a smooth production process, without any jerking movements, which protects the containers from strikes and guarantees greater reliability, better pack quality and a reduction of mechanical wear and tear
- fast easy format changeovers : ideal solution to quickly switch from one pack format to another, alternating the production of different types of pack
- high operational flexibility: the SK 602T ERGON shrink wrapper installed at the Bepensa plant can pack 0.33L and 0.75L glass bottles in pack formats of film only, tray+film, pad+film, in single lane or twin lane. Having only one packer that is able to wrap numerous pack configurations, is without a doubt, an advantage from an economic point of view, as it quickly and easily adapts the production plant to the ever changing requirements of the company
- the SK ERGON shrink wrappers can be equipped with additional devices, which increase the basic functions and allow greater efficiency. Among these, is the innovative "film welding device with heated blade" which allows the two ends of the two rolls of shrink film mounted on the machine, to seal together without stopping production. A few seconds before this operation, the machine slows down to allow the system to automatically splice the two ends of film (printed or plain with reference mark) then it sets off in full production. Compared to traditional hot welding systems, this device considerably reduces energy consumption and maintenance, as it is not necessary to keep the sealing rollers at temperature, it also improves the sealing precision of the two edges of the roll of film printed or plain with reference mark
- the shrink tunnel on the SK ERGON shrink wrappers is supplied with a metal mesh chain, a solution which ensures improved film grip beneath the pack

➤ CONVEYORS

Function: carry loose glass bottles towards the automatic SK 602T ERGON packer and carry the packs from the SK outfeed to the APS 3090 ERGON palletising system.

Main advantages:

- the loose product conveyors guarantee constant, smooth movement
- changeover times reduced to minimum, for quick switch from one production to another
- simple maintenance operations
- use of high quality components and materials that are resistant to wear and tear, to ensure that the packs remain intact
- at the tunnel outfeed of the shrink wrapper there is an additional conveyor which, thanks to a specific fan, quickly cools the shrink wrapped packs to obtain immediate stiffening, this system stops the packs from becoming deformed at the outfeed, especially while being carried by the conveyors and during palletising operations.

A WORD WITH THE CUSTOMER

→ INTERVIEW WITH DAVID ARGAEZ, SUPPLY CHAIN MANAGER at Bebidas Internacionales Bepensa S.A. de C.V.



Q: Thanks to Caribe Cooler, Grupo Bepensa is the number one producer in Mexico, for ready to drink beverages. What is the secret of this success?

A: The key to the success of our group is tied to a series of strategic columns and fundamental values that characterise all the activities at Bepensa: integrity, leadership, respect, innovation and loyalty, are all essential conditions that contribute to the well-being of the company and its employees. The company's success also depends on the strong spirit of innovation, from the commitment to offer excellent products and services, and from its open, flexible attitude that allows it to immediately face market changes.

Q: What are the current market trends in terms of "packaging"?

A: Bepensa always concentrates on the consumers' requirements and their satisfaction, which is the reason why, even for the "packaging" of our products we use varied solutions, aiming to make the experience of consuming our products, a pleasurable, comfortable event which can be shared with others and is economically accessible to a large segment of the population, without overlooking the importance of supplying our drinks in eco-compatible packs that are easily recycled.

Q: How important is it for Bepensa that SMI are present with a local team in Mexico?

A: SMI's decision to open a branch in our country, with expert technical and sales staff, is vitally important for our company, because with them being just a short distance from our factories (less than 3

hours by car) they guarantee immediate, constant service, above all when there is a breakdown or if we need spare parts, which reduces the stress to our technical and production teams.



Q: Caribe Cooler has a modern factory equipped with cutting edge technology. What role does the partnership with SMI have, regarding innovation?

A: The collaboration with SMI is extremely important for the success of our company, as the "made in Italy" technology that this company has developed in over 30 years, has given us highly efficient machinery and equipment. The partnership with SMI is not only for the supply of highly technological plants, but it involves many other aspects such as technical consultation, and sales and after sales support. The project that led Bepensa to buy a new SK 602T ERGON shrink wrapper involved many people from SMI, in particular Sergio Pérez Cuadra and Luis Quezada from the Smicentroamericana branch in Mexico City, thanks to their continual support, the relationship between the two companies is much stronger and it has become a strategic partnership for today and tomorrow.

➔ AUTOMATIC PALLETISING SYSTEM APS 3090 ERGON

Packed products: packs of 4x3 0.33L and 0.75L bottles in tray+film; packs of 4x6 0.33L bottles in tray+film and packs of 3x2 0.33L and 0.75L bottles in pad+film, coming from the SK 602T ERGON shrink wrapper.

Pallets worked: 1016x1219 mm pallets (USA pallet).

Main advantages:

- equipped with central column activated by brushless motors, which guarantee high level of reliability, reduced maintenance operations and low running costs guaranteeing that all the operating axes have precise, dynamic movements
- simple, intuitive man-machine interface that allows the operator to quickly and easily manage all the operations of end of line palletising
- low running and maintenance costs
- easily integrated into the packaging lines existing or new installations
- PLC that monitors the accurate functioning of all safety devices present, integrating their performances, and creating an area of safe intersection within the machine perimeter, allowing reduced down time, in case of an emergency or during pallet loading.



SOCIÉTÉ DES EAUX DE VOLVIC

➤ **SECTOR WATER**
SOCIÉTÉ DES EAUX DE VOLVIC SA
Volvic, France
www.danone.com

➤ Integrated system ECOBLOC® 4-14-4 HC EV ERGON



VIDEO



GEO LOCATION

Nature is powerful and generous, and reflects the image of its beauty in the environment that surrounds it. In the heart of the Regional National Park of the Volcanoes of Auvergne, the biggest, regional, natural park in France, and also one of the oldest, the beauty of nature is reflected in the breathtaking environment, which has seen uncountable volcanic eruptions and even today has many volcanoes, lakes, rivers, flora and fauna that fascinate nature lovers. From this pure, preserved environment, rich with minerals and nourishing substances, springs a source of rare, low mineralised water with a unique taste: the source of the natural, mineral water Volvic. When we speak about purity and quality, it is the accurate work carried out by the bottling company, the Societé des Eaux de Volvic part of the Danone group, that comes to mind. The whole bottling process undergoes careful controls, to satisfy the high levels of quality required by the company, and by Danone, starting from protecting the source, to monitoring the natural environment, until the moment when the bottled product is consumed. All of this is taken care of in minute detail, involving partners and suppliers, as with the recent investment for the purchase of a new bottling line, for 8L containers in 100% recycled plastic (rPET), which involved SMI for the supply of an integrated system ECOBLOC® ERGON. The project is the result of strong synergy between Volvic-Danone and SMI, starting from the design phase, every choice rotated around the necessity to obtain higher than average, bottle performance and quality, safeguarding the final product, eco-sustainability and operational efficiency of the whole production process.



FROM THE SOURCE TO THE TABLE: THE QUALITY IS ALWAYS CONTROLLED

Sustainable development, respect for the environment, product quality and purity, are the fundamental elements at Société des Eaux de Volvic SA, company, which has been part of the French Danone food and beverage group (water dept.) since 1992. The natural purity and unequalled quality of Volvic water, begins by carefully protecting the source and accurately monitoring the natural environment from where this precious liquid flows. The water is conducted through stainless steel pipes from the source to the bottling plant, without any external contact, therefore from the depth of the volcanic stratum, it

reaches the protected environment of the inside of a bottle. To protect the liquid from any external contamination the Volvic bottling plant was designed according to advanced automation and security criteria, to respect this, the French company decided to choose the integrated system ECOBLOC® ERGON, supplied by SMI. The bottle has the fundamental role of maintaining the purity of the spring water and preserving the quality until the product is consumed, for this reason, the bottles blown, filled and capped by the integrated system ECOBLOC® ERGON need to go through a long series of



controls within the bottling line and, every day the Volvic Quality laboratory collects samples and carries out careful tests.



→ THE PROPERTIES OF VOLVIC WATER

The heart of the utility basin of Volvic water is Auvergne, in the south central France, in the area of Massif Central, an exceptional natural environment with a unique geological history. As the name "Volvic" says, the source of the water comes from a volcano, and to be more precise it comes from a volcano nearby, Puy de la Nugère which with an altitude of 1,000m overlooks the ancient, surrounding valley. Rainwater has filtered for about 5 years into the layers of volcanic rocks that represent a great natural filter. Coming into contact with these millenary rocks naturally protected by any pollution, water is purified, is enriched by precious mineral elements and thus acquires its oligomineral, constant and unique composition. Volvic natural mineral water is a slightly mineralized water, can be drunk by everyone every day and is suitable for all organisms, even for the more fragile ones.

100% RPET BOTTLES

Volvic natural, mineral water, arrives at the consumers' table as pure as when it flows from the source, it is not treated in any way that can alter the taste, for this reason the container plays a vital role towards maintaining the purity of the water, from the source to when it is consumed. The most widely used material for bottling water is PET (polyethylene terephthalate), an unbreakable, plastic material that is lightweight and 100% recyclable. Volvic's high regard of environmental issues led the French company to develop modern solutions for the recycling of PET, so that a new bottle can be produced from an old one. Volvic was one of the first companies to use recycled plastic (rPET) to produce containers, slowly increasing the percentage of



rPET, until it hit 100% with the new 8 litre bottle. The 8L container with a square base, in the same style as the smaller Volvic bottles, was studied by a designer at Danone to create an extremely, practical, home use, container-dispenser. Its shape, part of which is slightly tilted, ensures that the bottle can be easily positioned on a flat surface and, thanks to the special cap which is used as a tap, the supply of the product is convenient and easy. The new design of the maxi container was accurately reproduced by SMI, to create the moulds that are installed on the integrated system, ECOBLOC® ERGON HC EV and which, allows it to produce a harmonious bottle with a clean design, that perfectly mirrors the purity of the water that it contains.

➤ **ECO-PACKAGING AND ECO-FORMATS**

Volvic and the whole Danone Group are constantly involved in environmental protection and they play an important part in the management and safeguarding of the subsoil waters, and also in the promotion of recycling plastic containers.

Eco-packaging and eco-formats are concepts that have always been a part of Volvic, which was one of the first companies to:

- introduce PET for bottling water
- use recycled plastic materials (rPET) to produce bottles
- introduce plastic that has in part vegetable origin, in France
- reduce the weight of the packaging

Recognisable by the green cap, Volvic 0.5 L and 1.5 L bottles were the first in France, to be produced with a type of plastic that is 20% vegetable origin, favouring the use of renewable materials. Furthermore, as large capacity formats use less plastic, Volvic has always tried to promote them and produce ecological formats, like the 8L bottle, bottled by the ECOBLOC® ERGON HC EV recently supplied by SMI.



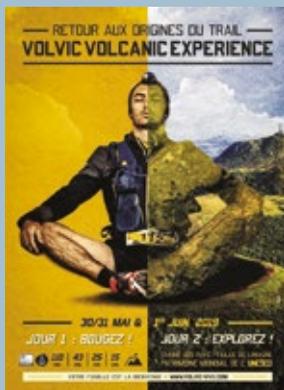
➤ **FIND YOUR VOLCANO**

The Societé des Eaux de Volvic has always promoted the initiative and enterprising spirit of the people, believing that there is a volcano inside every person, symbol of interior strength, waiting to be awoken to gain what we desire. The French company believes that life is a question of choice, not of luck, the choice is the strength inside each one of us, the ability to reach the top of the world and, just like a volcano, every human being has an interior strength that needs to be awoken. Through a range of simple, natural products, Volvic helps consumers choose healthy eating habits, that are able to feed the interior strength within us:

- drink natural water having fun, with initiatives that are dedicated especially to young children
- improve access to clean water in Africa, by collaborating with UNICEF since 2006
- reduce sugar content in beverages

➤ **VOLVIC VOLCANIC EXPERIENCE - VVX**

Volvic Volcanic Experience (VVX) began in 2017, with the aim of letting this volcanic region of Volvic be discovered under every aspect: sport, culture and music. Uniting the values of uniqueness, quality, conviviality and environmental responsibility, the VVX was designed to dazzle thousands of participants, with the beauty of the exceptional frame of Chaîne des Puys and to give them a unique adventure that joins sport, culture and celebrations. An exciting path for Volvic, that highlights the way the company is dedicated to sport, health and nature.



SMI SOLUTIONS FOR SOCIÉTÉ DES EAUX DE VOLVIC



To satisfy market request for bottled water, in 100% recycled PET (rPET) containers, the French company invested in the purchase of machinery from the ECOBLOC® ERGON HC EV range, supplied by SMI, the ideal solution to produce, fill and cap large size containers. The new investment was studied in detail, creating strong teamwork between the experts at Volvic and Danone and the designers at SMI. The complete, production process was designed so that every step of the bottling is kept under constant control, because it is here, that the water coming from the deep underground, comes into contact with the external environment and is at a greater risk of contamination which would compromise the sensory, chemical, physical and microbiological properties. The Société des Eaux de Volvic SA, also, pays particular attention to everything that concerns sustainable development, environmental respect, product quality and purity, for this reason the whole bottling, packaging and distribution process was designed around these values and the machine supplied by SMI was integrated with sophisticate inspection systems, which, starting with the preforms, carry out a long series of checks to maintain the quality and purity of the spring water.

➔ INTEGRATED SYSTEM ECOBLOC® ERGON 4-14-4 HC EV

Functions: stretch-blowing, filling and capping of square based, 8L containers in PET, for Volvic natural mineral water, with a production capacity of up to 3,200 bottles/hour.

Main advantages:

- compact, flexible solution for stretch-blowing, filling and capping bottles in PET, with the advantage, in terms of reducing production costs, as the system does not need a rinser, nor conveyors between the blower and the filler or accumulation
- isolating system between the “dry” area of the blower and the “wet” one of the filler, through a jet of high pressured, sterile air in excess of 5Pa, which guarantees a clean, hygienic filling system. The air flow, through 4 units of Galvani filters (HEPA filters) situated on the top part of the filler area, spreads around all the interested area to avoid contamination, acting as a “clean room”.
In addition, the filling valve is controlled by an electronic flowmeter
- application of various accessories to guarantee that the filling system is extremely clean and easy to sanitise with advanced cleaning systems
- innovative preform suction system, situated on the oven infeed star, to remove any tiny impurities that could be on the inside of the preform itself. The air that is inserted into the suction system is filtered, and is part of the air recovery system that comes as standard on all the range of SMI stretch-blow moulders.

The system combines blowing air into the preforms with the following vacuum suction process

- machine integrated with sophisticated inspection systems with cameras to guarantee the quality of the bottled water, monitor the production process and avoid particles and/or impurities being deposited on the inside of the unblown preforms
- the preforms are blown with sterile air in a sterile environment; this sterility is maintained for all the process of filling and capping
- precise and fast operation, thanks to the electronic, operation control, to motorised stretch rods and the use of high efficiency valves with flowmeters
- reduced energy consumption: the stretch-blow module is equipped with a double stage air recovery system, which allows the reduction of energy costs tied to the production of high pressure compressed air
- high energy efficiency, thanks to IR lamps fitted onto the preform heating module
- filler area compatible with COP (Cleaning Out of Place) and equipped with optional system of stainless steel bulkheads to separate the “wet” area of the filler with the “dry” area of the blower during maintenance or cleaning operations. The bulkheads can easily be installed on the filler infeed, with a star on the blower that can be disassembled, and on the outfeed, on the channel of the bottle outfeed
- electronic components positioned on the inside of the panels to make sure they have greater protection from the damp
- base of the filler area is made in stainless steel and slightly sloped to ensure that any spilt liquids go down the drains
- electronic capper equipped with cap orienting during application, system to control correct positioning of cap and a rejection system for over turned caps
- cap sterilisation through jets of ionised air on the cap channel
- washable cap accumulation table, in stainless steel, equipped with an optional system to suction the caps to remove any impurities that might have deposited on them while moving along the hopper
- reduced maintenance and running costs of the machine

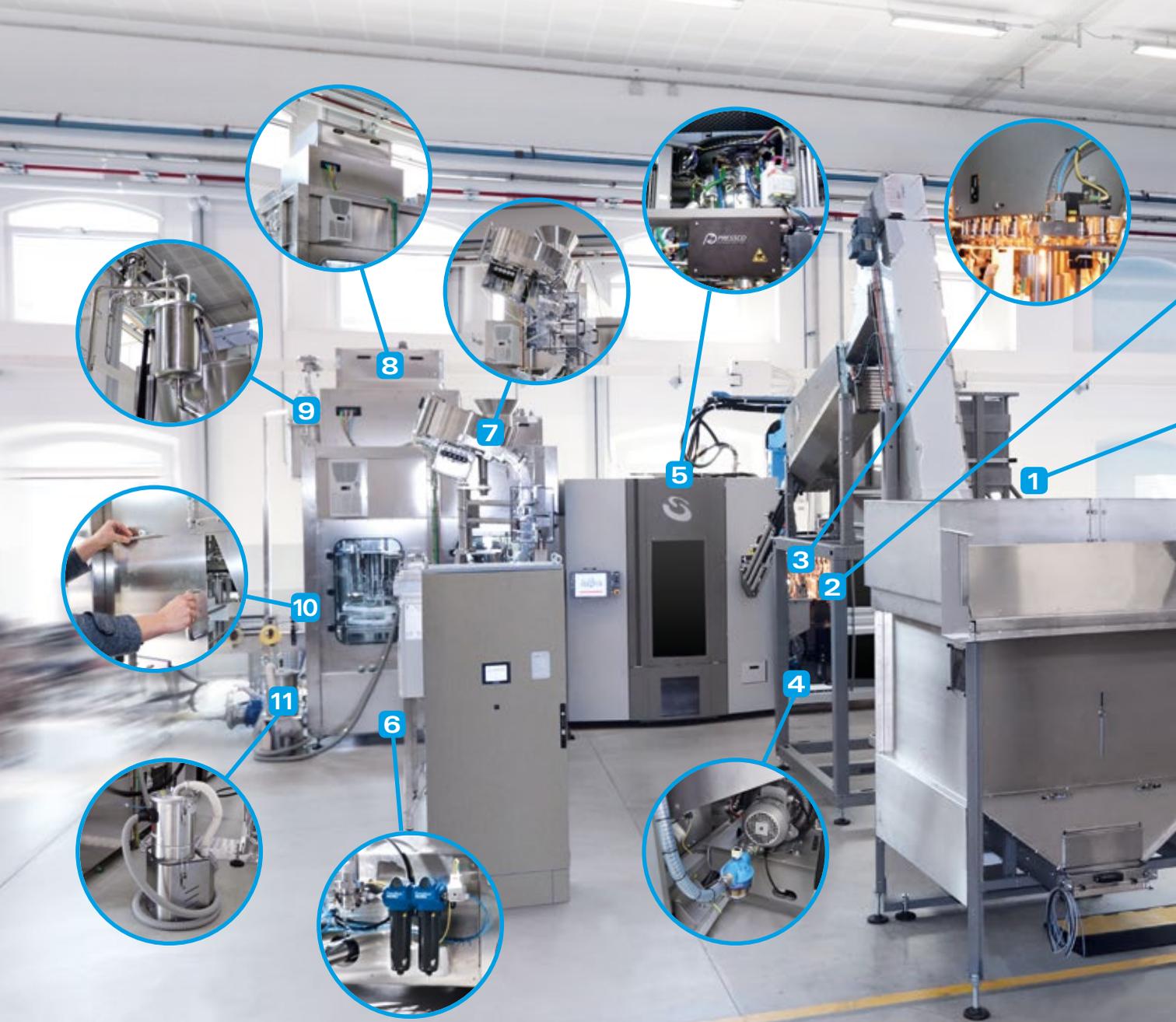


PRESSCO INSPECTION SYSTEMS INTEGRATED INTO THE STRETCH-BLOW MODULE

The increase in production speed of bottling lines, the use of lighter containers, and the change in laws that are stricter in terms of food product quality and integrity force companies in this sector to use cutting edge technology

equipped with advanced inspection systems for preforms, bottles and caps, this way preventing any non-compliance issue or contamination. To satisfy the quality standards of the Danone group, the ECOBLOC® HC ERGON supplied by

SMI, is equipped with sophisticated Pressco inspection systems, leader in the inspection sector for containers in PET and reference point for all the companies which, like Volvic aim at having excellent quality standards.



- 1 PRESSCO CONTROL PANEL
- 2 PREFORM INSPECTION CAMERA
- 3 PREFORM DUST SUCTION SYSTEM
- 4 PREFORM DUST VACUUM SUCTION SYSTEM
- 5 BOTTLE MOUTH INSPECTION CAMERA
- 6 STERILE AIR FILTERS ON FILLER
- 7 CENTRIFUGE TO TURN AND FEED CAPS
- 8 STERILE BLOWN AIR FILTER ON FILLER
- 9 PRODUCT INFEED TANK ON FILLER
- 10 BULKHEADS ON FILLER OUTFEED FOR WASHING WITH FOAM
- 11 CAP DUST SUCTION SYSTEM



➤ PREFORM INSPECTION SYSTEM

Function: verify that no particles and/or impurities are present in the preform

Advantages:

- avoid particles, stains and/or impurities inside the preform, to maintain the quality of the bottled water
- inspection system using three cameras installed inside the oven to check the colour of the preform, the presence of micro-holes in it or any scratch, physical or cosmetic deformation
- If non-compliant preforms are found they are immediately ejected from the production process, avoiding the next production steps, if these defective preforms were blown, it would be a waste of the bottles, generating expensive damage to plant efficiency
- The inspection system installed on the Volvic ECOBLOC® HC allows the complete preform check in all the critical areas and ejects the defective ones in the very first stages of the bottling process

➤ BOTTLE INSPECTION SYSTEM

Function: verify the integrity and quality of the mouth of the blown bottle

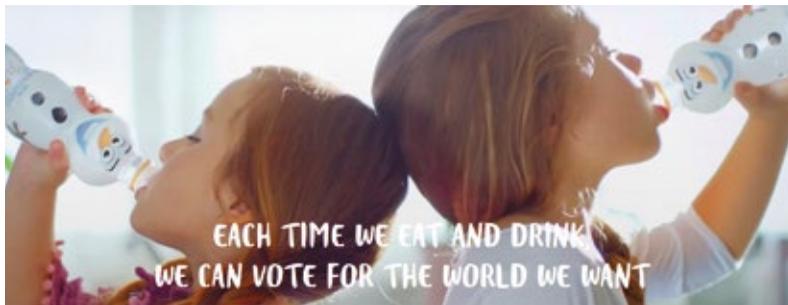
Advantages:

- system fitted on the blower outfeed star, giving the advantage of inspecting the internal edge and the outside of the mouth of the freshly blown bottle identifying any small breaks or abrasions
- allows defective bottles to be ejected so that only bottles that are up to standard will be filled and capped correctly
- avoids problems with cap application, as it ejects containers with defective mouths before they get to the filling and capping stages
- inspection system equipped with its own operation control panel, that interacts with the POSYC® control system installed on the machine for an improved, more complete analysis of the functional parameters. In this way the blower POSYC® can manage every process on the ECOBLOC® machinery: preform infeed, oven, stretch-blowing, filler, cap infeed, capper and all the optional devices for inspections and controls
- the integration of this inspection system inside the blower is advantageous as it allows constant monitoring of the process and the immediate ejection of any defective containers to produce high quality bottles at a reduced cost



THE DANONE GROUP AND THE WATER MARKET

The French multinational Danone, is a world leader in four sectors: essential dairy and plant based products, early life nutrition, medical nutrition and water. It closed its 2018 financial report with an overall turnover of 24.7 billion euro and over 100,000 employees around the world. In 2018, the Danone group had a turnover of around 4.6 billion euro in the bottled water sector (19% of the company's overall turnover), with a net sales growth of 5.3% compared to 2017. The three countries that mostly contribute to the turnover of packed water are in this order China, Indonesia and France.



➤ THE HISTORY OF VOLVIC

The term "Volvic" derives from the Latin expression "Volcani Vicus" (Land of volcanoes) and from ancient times it was used by the Romans for this area. The richness of Volvic water was already well-known at the end of the nineteenth century, but it was only in 1927, thanks to the mayor of the town of Volvic, Pierre Moity, that the important source of water was discovered and a 700m tunnel was built underground to reach it. The water began to be sold in 1938 by a local company, which in 1955 took the name of Société des Eaux de Volvic, in 1963 while mount Puy de Dôme was being drilled, another spring was discovered, the Clairvic, and it is from here that Volvic water still flows today. In 1969, the classic glass bottle was replaced by a container in PVC, one of the first examples of plastic bottles to be used in Europe to bottle spring water. In 1984 the Perrier group bought the Sellier-Leblanc company, owner of Société des Eaux de Volvic, the latter was then sold to the Danone group in 1992 when the Swiss multinational Nestlé re-purchased Perrier and was forced, for anti-monopoly reasons, to give up some brands in the mineral water sector. In 1997, Volvic became the first food and beverage company to launch recyclable PET bottles on the market and today, thanks also to the packaging in 0.5L, 1L and 8L formats, it is the main industry of the sector in France. The company is always in pole position with its eco-sustainable commitment, which can be seen by the attention that it pays to the special "packaging" used to sell its products.

SMIPAL



“SMART” SOLUTIONS FOR AN EFFICIENT END OF LINE

→ SMOOTH, PRECISE MOVEMENTS

At the palletiser infeed, the product infeed conveyor forms the line, assisted by the transfer system that, with one direction movements, helps to create the layer. The layer loading head picks up the layer of packs that has been formed, from a conveyor at operator height. The vertical movements of the beam and the horizontal ones of the head-holder are activated by “brushless” motors, which guarantee perfect trajectories during all palletising phases. All the operations are managed by a “user-friendly” machine, automation and control system, which allows the operator to use the palletising system easily and efficiently.

Producers of beverages, food, detergents, chemical and medical products need to be more and more competitive, to face a demanding market that is continually evolving. This objective can be reached more easily if innovative, flexible and personalised solutions are used within the production plant. Starting from this requirement, and from market trend analysis, SMI invests in cutting edge solutions to offer their customers packaging lines that are characterised by high performance, optimised operation versatility and TCO (Total Cost of Ownership). Today, the design of a new bottling and packaging plant is highly influenced by the modern technology created for the “smart factory” of the future, with this high quality production lots can be created at a reduced cost, without neglecting important aspects such as, eco-sustainability and process energy efficiency. In the environment of industrial plants dedicated to end of line packaging, the Research & Development divisions at SMI have recently launched a new range of models of APS ERGON automatic palletising systems, that are based on innovative principles like:

- “smart” operation: the new palletising systems are proud of their modern, technical, ergonomic and functional solutions, which allow you to reach high production efficiency while reducing the line operators workload
- “smart” management: the control and management of end of line machinery in a bottling and packaging plant are extremely easy and intuitive. This advantage can be enhanced further, if the palletisers supplied by SMI, are equipped with the SWM supervision and control system by Smitec, which allows the constant, gathering, monitoring and “interpreting” of production data, improving efficiency and safety, containing costs and a return on the investment.
- “smart” savings: thanks to latest generation technical solutions, like the ICOS motors equipped with integrated, digital servo-drivers, the new APS ERGON palletising systems are able to guarantee low, environmental impact and low, energy cost production, while significantly reducing maintenance, energy waste and machine and plant noise.



SMIPAL

FLEXIBLE, RELIABLE PALLETISING LINES

The overall efficiency of a bottling and packaging plant also depends on the reliability of end of line operations, where palletisers need to work perfectly, to guarantee uninterrupted production flow. This is only possible if the pallet loading, layer forming and pad insertion operations are synchronised in a precise, continual way with the other machines on the production line. The technology applied to the new models of APS ERGON by SMI guarantees vast operation versatility and high possibility to personalise

production processes, as the Cartesian axis system can be programmed automatically, according to the requirements of the specific application. The SMI palletisers are easily adapted to different requirements in terms of format changeover, product changeover and logistic programmes within the end of line area. They are also able to manage a wide range of palletising patterns, based on the specific requirements of the customer, contributing to guarantee the optimal performance of all the production plant.



APS SERIES

A UNIQUE RANGE OF MACHINES FOR LOTS OF DIFFERENT REQUIREMENTS

The APS ERGON range consists of an automatic, single column system on two Cartesian axes, to palletise boxes, bundles, tray and packs in general. The SMI palletisers have different modules, which can be programmed in a personalised way, according to the logistic conditions of the end of line area and to the work required, either in existing lines or in new installations. The heart of the system is made up of a vertical axis module, a long fixed column, along which the horizontal work beam slides on recirculating ball guides.



APS 1540
VIDEO
scan this QR code



The beam along which the head-holder beam slides, always on recirculating ball guides, can be combined with:

- product infeed module and preform layer system (variable according to model chosen)
- pallet module with maximum payload of 300 kg (max. 10 pallets with max. height 150 mm and max. payload of 30 kg/pallet), that includes the moving and storage of empty pallets (pallet modules with a greater payload are available as optional accessories)
- module pad insertion (optional), consisting of a pad magazine and a pad inserting device with controlled axis
- surrounding safety barrier



➤ PRODUCT INFED AND PREFORM LAYER SYSTEM MODULES

APS 1540 (up to 40 packs/minute)

Single infeed complete with vulcanised dosing belt, 90° product infeed conveyor to form the line and transfer system with one direction movements, that creates the layer directly in the basket.

APS 3070 L (up to 70 packs/minute)

In-line layer forming system and n° 1 system of pack rotation and/or manipulator in continuous motion on three Cartesian axes, that prepare the layer and put it in the basket smooth precise way exploiting the conveyor movement.

APS 3105 L (up to 105 packs/minute)

In-line layer forming system and n° 2 systems of pack rotation and/or manipulator in continuous motion on three Cartesian axes, that prepare the layer and put it in the basket.

APS 3140 L (up to 140 pack/minute)

In-line layer forming system and n° 3 systems of pack rotation and/or manipulator in continuous motion on three Cartesian axes, that prepare the layer and put it in the basket.

Pallet module

The APS ERGON palletisers are equipped with an empty pallet feeder that comprises a roller conveyor, with maximum storage capacity of 300kg (pallet modules with a greater payload are available as optional accessories) and/or maximum total height of 1700 mm. Designed according to the FCR (Full Cost Reduction) method, this system is tested and supplied to the customer fully assembled and cabled.





SMIFORM: OVAL CONTAINERS WHICH STAND OUT THANKS TO PREFERENTIAL HEATING

Companies producing detergents, cosmetics, sauces and condiments prefer to use non cylindrical containers, these are more practical to handle and can be widely customised in terms of shape, size and physical appearance. To produce high quality, non cylindrical containers in PET, you need latest generation blowing technology, which lets the material be distributed evenly over all the container's surface, optimising the production process and making resistant containers that are aesthetically perfect.

Therefore, in a stretch-blowing machine it is necessary to heat the preforms in an irregular way through differentiated heating, to be able to obtain containers with a rectangular and / or oval bases that have the same thickness on every side. This is possible thanks to the specific design of the preform, heating module, which has a mandrel chain equipped with a series of technical devices that are able to run the preform rotation in a specific way, achieving differentiated irradiation on the body of the preform when it is passing in front of the high energy efficiency IR lamps.

➔ DISCOVER THE ADVANTAGES OF PREFERENTIAL HEATING

- Even thickness on all sides of the container
- No area with material that has not been stretched correctly
- Weight optimised for containers with complex shapes
- Simplified labelling and attractive look



ASW ERGON



➤ ASW ERGON max 40 ppm

- Single lane infeed
- Extremely compact machine module
- Quick, simple format changeover
- Ergonomic cardboard magazine (for version T)
- Easy running and maintenance operations
- Rotational cardboard picker (for version T)
- Tray former with automatic timing (for version T)
- Film unwinding controlled by brushless motors on the reel holder
- Automatic control film winder
- Posyc® 15" sliding on tracks
- Twin reel holders

For SMI, innovation means keeping up with the present and future requirements of companies within the "food & beverage" sector and in other sectors that produce consumable goods. Innovation also means anticipating market trends and being ready to offer packaging solutions that satisfy the requests generated by these trends. A new secondary, packaging machine recently left the Research & Development departments at SMI, the

ASW 40 ERGON packer was presented with a world premiere at the Fachpack exhibition in Nuremberg, in Germany, one of the most important events for the food industry and packaging machinery, which ran from 24th to 26th September 2019. The new SMI ASW ERGON range has different models of compact shrink wrappers with single lane 90° product infeed, suitable to pack a wide range of cylindrical, oval or square/rectangular containers at a speed of max. 80 packs/minute.



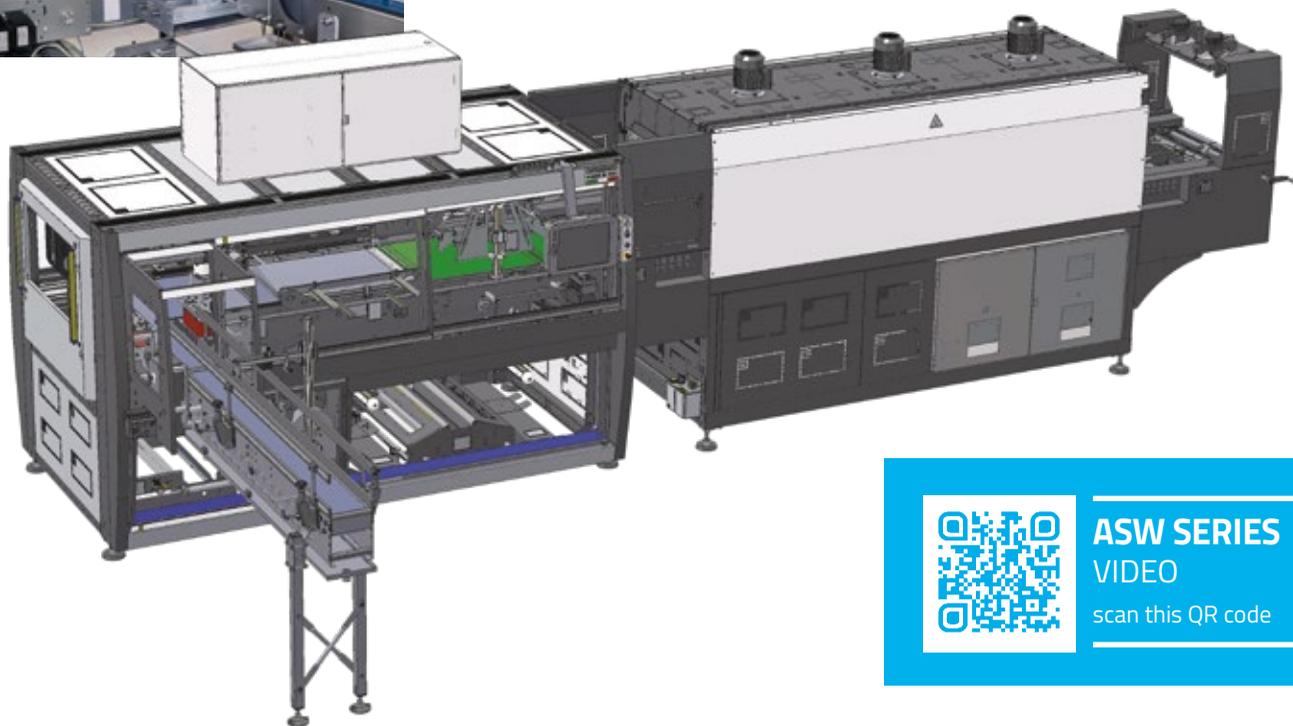
ASW ERGON

INNOVATION, ERGONOMICS AND COMPACTNESS



The ASW ERGON project began with the desire to offer the market a compact, single lane version of the automatic packers from the SK range, that SMI has been successfully selling for over 20 years. Thanks to innovative solutions in terms of modular assembly, space reduction, advanced ergonomics and latest generation automation, the new series of automatic packers include the best technology, for secondary end of line packaging, available for this sector.

The new range of ASW ERGON, stands out for its flexibility of use, energy savings, respect for the environment and ease and safety of use. Consideration for ergonomics in the workplace plays an always more important role for managing the health and safety of line operators. It is true that, a growing number of companies in the "food & beverage" sector are giving more importance to solutions with ergonomic measures, that are able to guarantee the highest levels of employee protection and accident prevention.



ASW SERIES
VIDEO

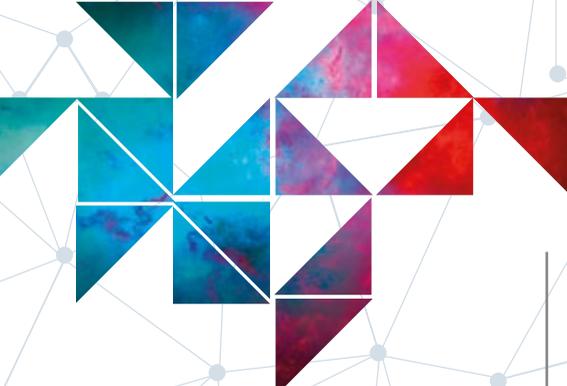
scan this QR code

ASW ERGON

THE ADVANTAGES OF THE NEW RANGE OF ASW ERGON

- Compact solution that is easily adapted to the logistic end of line conditions: in the infeed section the ASW ERGON packers are equipped with a single lane system, situated preferably on the opposite side of the operator, that facilitates the correct laning of the loose containers on the conveyor, which is equipped with low friction coefficient, thermoplastic chains. Thanks to the single lane infeed, a divider is not necessary to lane the products, with consequent economic advantages.
 - In the section where the pack format is formed a group of dividing bars group the containers in a continuous row before the requested configuration is packed (1xn, 2xn, 3xn, etc.).
- This section is characterised by a doser, this is a twin belt system, that goes through an electronic cam, separating the products according to the format in production. Then, thanks to the rotating infeed, the loose products are pushed by the single lane conveyor to the multi-lane conveyor at the machine infeed.
- Quick, simple, economic format change-over: the single lane infeed offers the advantage of working lots of different kinds of containers, with different sizes, without having to have additional belt equipment. Therefore, format changeover is much faster and easier, as there is no need to regulate the guides on the different lanes.
- Cardboard magazine designed according to the most recent developments in ergonomics, which guarantee fast, safe, running and maintenance operations (only on models ASW T ERGON). The cardboard magazine is situated on the operator side instead of being under the machine infeed conveyor, making the loading operation easier and safer.
 - Film cutting unit compact design equipped with a blade that is driven by a brushless motor with "direct-drive" transmission, this improves the precision and accuracy of the cutting operation and simplifies maintenance operations.





SMI IN INDIA WITH EDITOURMOBIL

The magazine PETPlanet Insider is back with its usual Editourmobil to undertake what will probably be the greatest road-show ever created, travelling around the roads of the Indian subcontinent! SMI could not miss being a part of this initiative and has sponsored the tour, that starting from the city of Mumbai, will go through this vast, fascinating country with a rapidly growing economy, to reach New Delhi in time for the Drink Technology India exhibition, running from 12th to 14th December 2019.

>> Scan the QR code to discover more...



READY FOR THE DIGITAL TWIN?



In the environment of Industry 4.0 more and more often we hear the term "digital twin", associated to a machine, or in some cases, to a complex plant. Digital twins are the perfect copy of a manufacturing product or of a process, which however, work and interact with each other only in the digital world. These projections are useful for prototyping, or for monitoring the function of some processes in order

to reduce costs in the design phase and optimise product maintenance operations. SMI machines are equipped with Smitec automation, which, using this technology can achieve industrial processes that always perform better, are more efficient, sustainable and are geared for managing data and advanced communication among various devices according to the protocols of Industry 4.0. and IoT.



WORKSHOP OF IDEAS

SMI GROUP AWARDED WITH THE BAQ BY CONFINDUSTRIA

The SMI Group has received the Bollino Alternanza di Qualità 2019 (BAQ) awarded by Confindustria Bergamo as certification and recognition of its commitment in the partnership with schools for the alternating activities school-work. The important award, demonstrates the attention that the company has for the local territory, for its development and safeguard, as can be seen from the recent support given to the project called "Atelier creativo – Workshop of ideas" - a space created to satisfy growing digitalisation and to promote education for people at the school institutes in San Pellegrino Terme.

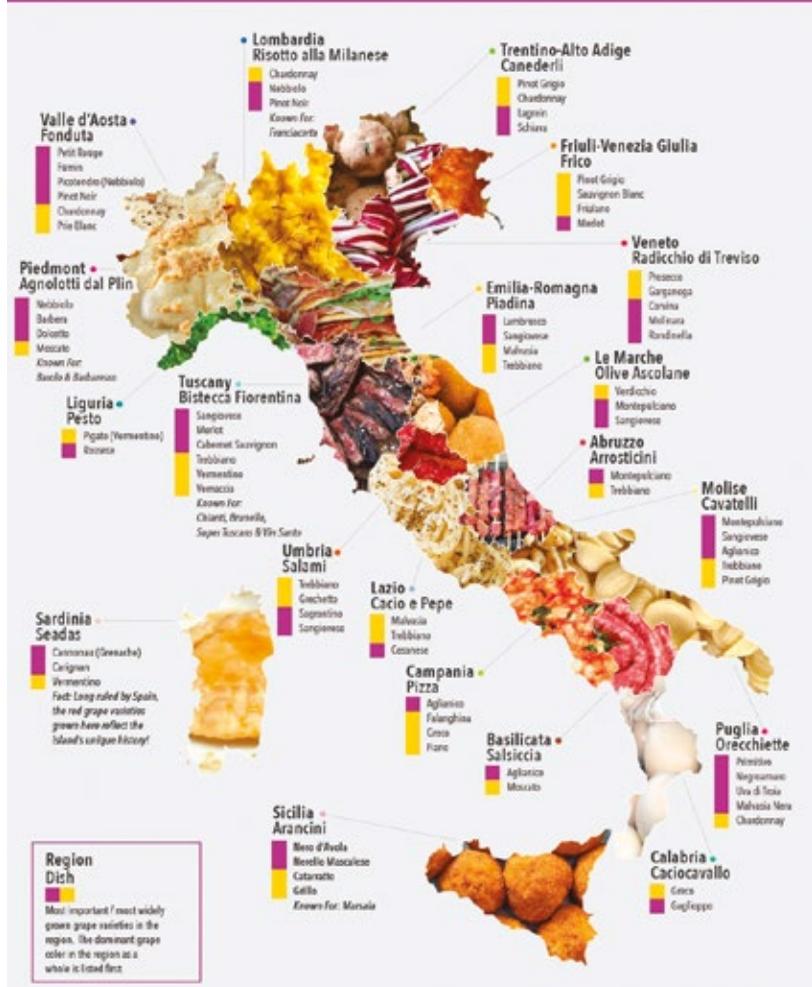


SUSTAINABILITY UNDER THE SPOTLIGHTS

The themed focus at the 2019 edition of the FachPack exhibition in Nuremberg will be packaging that respects the environment. This is a burning issue, that is having a growing impact on the evolution of the sector and that will have a wide reply in the programmes of forums, conferences and collateral events to be held during the exhibition. Among these is the "Sustainability Awards 2019" one of the most prestigious international competitions in the sustainable "packaging" environment, organised by the magazine Packaging Europe. SMI is taking part in the competition with the new packer in stretch film the SFP ERGON: an advantageous solution from an environmentally sustainable and energy saving point of view.



ITALY BY REGION ICONIC DISHES & LEADING WINES



ITALY WHERE GOOD FOOD MEETS GOOD WINE

When you speak about food and wine, there is no place in the world that is more valued than Italy. It is the place where good food and good wine meet every day, where producers and consumers are aware of their value. Don't be surprised then, that every typical dish in every region is combined with a local wine. In Italy, wine and food go together, one cannot be served without the other.



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