

/ RABE SPREEWÄLDER KONSERVEN / SER /
/ ICE AGE GLACIAL WATER CO. / ALIMENTOS MARAVILLA /

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RABE SPREEWÄLDER
KONSERVEN

*From the ground
to the jar!*

Magazine 2018/19

IN THIS ISSUE



- 04** Germany: Rabe Spreewälder Konserven
- 20** Canada: Ice Age Glacial Water Company
- 36** Italy: SER - Wax Industry Group
- 50** Guatemala: Alimentos Maravilla
- 66** MP ERGON: new models of packaging machinery have been created
- 70** EASY-CAP: From today cap positioning is easier
- 72** SMI Training Center: learn, do, grow
- 75** SmyReader: quickly order your spare parts through an app
- 76** Emotion bottles... Now you can say it with a bottle in PET!
- 78** Overview of food trends in 2018

76.



EDITORIAL 2018/19

SMI solutions to beat
food market challenges



The main international research institutes foresee, that in 2018, there will be a moderate rise in consumption within the food market, for this reason there will be more competition among food and beverage companies than in recent years. Therefore, as a supplier to hundreds of companies around the world, that work within this context, we continually invest in new products and technology, so that we can offer sufficient support, in terms of innovative solutions, to face and beat market challenges. Only by being competitive and having the ability to quickly adapt their production line to new market requirements, can these companies continue to be successful and grow in the future. The answer to these

requirements lies in the choice of bottling and packaging machinery, and plants which are characterised by advanced technology with flexible management, like those within our range: devices that are compact, ergonomic, eco-friendly, studied for the "smart factory" and equipped with advanced automation and control systems inspired by the principles of Industry 4.0 and Internet of Things (IoT). In this edition of SMI NOW, you can find the solutions that we have offered to some of our customers, we will also be present at Anuga Foodtec, where we will be pleased to personally show you the innovative packaging technology that SMI has developed for the food and beverage industry. Enjoy your read.

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

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Product pictures in this issue are shown for reference only.



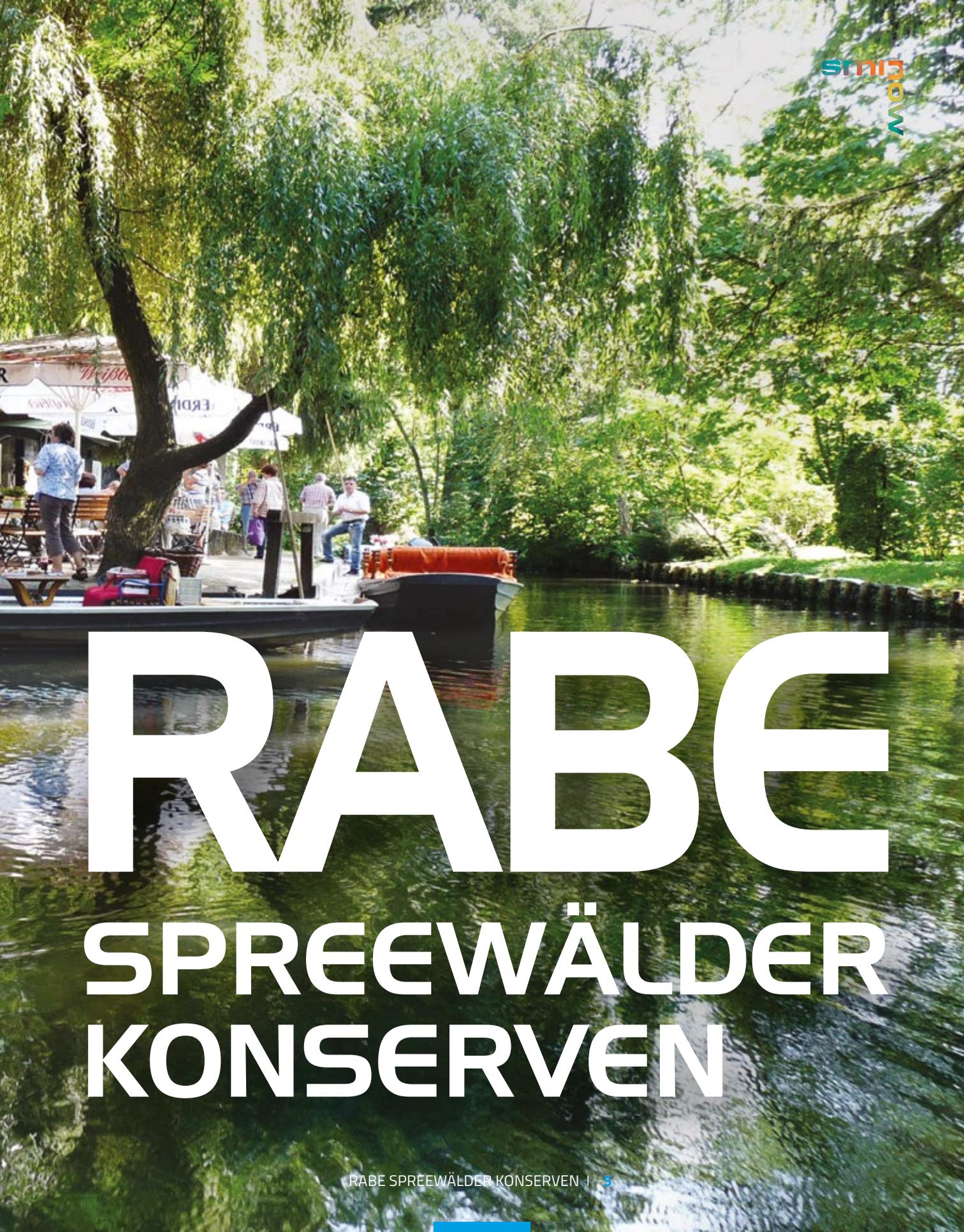
This product is made of FSC®-certified and other controlled material.



- **SECTOR: FOOD PICKLES**
RABE SPREEWÄLDER KONSERVEN GMBH & CO. KG
Lübbenau, Brandenburg, Germany
www.rabe-gmbh.de
- Shrink wrapper CSK 50T ERGON



GEO LOCATION

The background of the entire page is a vibrant, high-angle photograph of a canal. On the left, a boat is docked at a wooden pier. Several people are visible on the pier and on the boat. A large, leafy tree with long, drooping branches dominates the left side of the frame, its leaves casting shadows on the water. The water is calm, reflecting the surrounding greenery and the sky. The overall atmosphere is peaceful and scenic.

RABE

SPREEWÄLDER KONSERVEN

A FOREST REFLECTED IN WATER

1 00 km south-east of Berlin, in the "Spreewald" (Forest of Spree), lies a unique countryside characterised by an alluvial plain which has remained in its natural state. This region, very much like the "Venetian area", is furrowed by a network of over 300 canals and waterways that fill the area of the ancient swampy forest, just like Venice, the Spreewald moves with the water. It's as though you're in another world, each house has its own small boat which move slowly, around the silent canals emersed in the greenery of nature.

This region, which is mainly agricultural, is the home of the Spreewälder Gurken cucumbers, when we speak about the production of cucumbers, horseradish or other vegetables it's impossible not to speak about the Rabe Speewälder Konserven company, which for over five generations has produced and sold numerous varieties of pickles. They recently contacted SMI for the supply of the latest generation CSK 50T to wrap their products in practical shrink-wrap tray and film packages.

➤ DISCOVER LÜBBEN AND LÜBBENAU FROM A "PUNT"

Lübben and Lübbenau are the two main cities that interest tourists in the Spreewald region of the Brandenburg Land. To discover the fascination of these places, you need to take a trip along the numerous canals on a boat propelled by a long pole, called a "Punt". Lübbenau is known as the "city of Punts", this kind of rowing boat has a flat bottom and a square bow designed to be used on small, shallow waterways, the "Punter", which is a long pole, is used to move the boat. This picturesque type of boat is of vital importance to the inhabitants of this area, in this way they can explore the impracticable swampy area through which the river Spree flows. An excursion on a "Punt", is without a doubt, one of the main attractions of the Spreewald. This is thanks to more than 300 boatmen who offer every kind of trip around the water ways, some offer a trip dressed up in historical costumes, getting the participants to dress up according to the style of the 1800's, or those, especially in winter, who offer drinks of hot punch during the ride. The "Nautilust" is especially interesting, it's a particular kind of boat that has a small research laboratory on board, equipped with microscopes, nets and binoculars to discover the fascinating world below the waters of this wonderful UNESCO biosphere reserve.





The history of the Rabe Spreewälder Konserven is tied to the agricultural history of this region of the Sprea Forest, which, by the 15th Century, was already specialising in the cultivation of various kinds of vegetables, especially cucumbers, horseradish and onions. Eaten freshly picked, in a jar with spices, mustard, garlic, and pepper or in the pickled vinegar version, cucumbers from the Sprea Forest are always a tasty snack any time during the day. For people who love these products, there is even a 260 km cycling track, the Gurkenradweg (Road of the Cucumber), along which you can find the whole production cycle, from field cultivation to the wrapping of the filled jars, discovering the never ending delicious varieties of this vegetable. However, not all the secrets are revealed, the inimitable flavour of the pickles produced by this German company are the result of ancient family recipes which are rigorously kept



secret to ensure that this quality and uniqueness continue in the future. These are essential values which the Rabe Spreewälder Konserven are always able to guarantee to their customers, thanks

to their accurate packaging process, which uses latest generation technology such as the new automatic SMI shrink wrapper, from the CSK ERGON series.



RABE: A LITTLE BIT OF HISTORY

The cultivation of vegetables has also played an important role in the development of the Spreewald region and has been fundamental to today's economic structure. Since the 15th Century, farmers have specialised in the cultivation of various kinds of vegetables, especially cucumber, horseradish and onions and today, this area of Brandenburg is famous as the land of cucumber cultivation. The history of the Rabe Spreewälder Konserven company began in 1898, when Ernst Lehmann began producing cucumbers and horseradish. In the following years the company was handed over to his son Gustav, who unfortunately died at a very young age obliging his sisters Marie and Frieda Lehmann to look after the family company, even if with less enthusiasm. The turning point took place in 1932, when Kurt Belaschk married Käthe Lehmann, Marie's daughter, and becoming company manager he gave a new lease of life to the ancient family recipes. A few years later, the Rabe Spreewälder Konserven was taken over completely by the Belaschk family and since then, its turnover has grown constantly.

RABE SPREEWÄLDER KONSERVEN GMBH & CO. KG



Year of foundation: 1992 (however activity began in 1898)



Place of production: Lübbenau, Germany



Revenue: 8M Euro



Employees: 60



Activity: production and sale of vegetable based pickles

In April 1979 Rainer Belaschk, Kurt Belaschk's son, together with his wife Heidemarie took over the management of the factory, which in 1992 took the

new denomination "RABE-Spreewälder Konserven GmbH" (RABE comes from the first letters of Rainer Belaschk).



THE SMI SOLUTION FOR RABE SPREEWÄLDER KONSERVEN

To automate and optimise the end of line secondary packaging procedure, the German company once again turned to SMI. In 2014 they had already bought a tray former from the TF 400 series. Now the process of modernising the production plant in the Lübbenau factory, made it necessary to invest in a new plant that would be able to wrap different kinds of glass bottles and jars in lots of different tray+film formats. The installation of the new compact shrink wrapper from the CSK series was immediately chosen as the best solution, as this packaging machine with its cutting edge technology, is noted for its advanced automation, flexibility of use, energy saving and respect of the environment. The new series of SMI packers has a range of single or twin lane, compact and ergonomic design, the best technology available in the shrink wrap sector with a maximum speed of 50+50 packs/ minute (depending on the size of the container and the pack format).





➔ **CSK 50T SHRINK WRAPPER - For production up to 50 packs/minute**

Packaged products: glass jars 0.143L / 0.25L / 0.3L / 0.72 L; glass bottles 0.2 L

Packages worked: 4x2 in tray+film (jars 0.143L bottles 0,2L); 3x2 in tray+film (jar 0.25 L); 4x3 in tray+film (jar 0.37 L); 4x3 in tray+film (jar 0.72 L)

Main advantages:

- shrink wrapper equipped with a motorised system of oscillating guides at the infeed of the machine, these help to correctly channel the loose containers onto a conveyor equipped with chains made from thermoplastic, with a low friction co-efficient
- formation of loose containers into the desired format in continuous motion by means of electronically synchronized dividing pins and bars
- cardboard magazine situated below the infeed conveyor, from where the cardboard is picked by an alternate motion cardboard blank-picker, situated at the bottom of the cardboard ramp, made up of a set of suckers that work via an empty suction system
- cardboard ramp with a curvilinear shape at the beginning and at the end, to facilitate tray insertion under the group of products at the outfeed of the electronic separator
- film cutting unit with a compact design, where the blade is managed by "direct-drive" brushless motorisation that makes the cutting operation more precise and simplifies maintenance
- new ICOS integrated digital servo-mechanism (driver) motors, that can simplify the machine cabling and ensure greater energy efficiency, less noise and reduced component wear and tear.





FROM THE FIELD TO THE JAR

THE LONG JOURNEY OF THE CUCUMBER

The discovery of the cucumber began with golden yellow flowers that bloom in the middle of fields, rich with humus, and quickly produce their tasty fruit, which is rich in vitamins. Once ripe, the cucumbers are picked and undergo constant checking in the laboratories of the Rabe Spreewälder Konserven and in special food institutes so as to guarantee the quality. Apart from these regular checks, the whole range of production undergoes minute selection through which, only the best examples arrive on the consumer's table, as the consumer needs to immediately recognise the quality of the product and its typical rich and spicy flavour. Over the years, this German company has invested a lot of resources in research and development, using the most advanced technology for production and packaging, to ensure that the cucumbers maintain their naturalness and genuineness. These are then sold with the denomination Spreewälder Gurken IGP and are sold fresh, or in jars which are available in many different formats. The pickles are sold in glass jars of 100 gr, 750 gr, 720 ml, 420 gr, 370 ml and 100 ml, and can be flavoured with pepper, spices, garlic or with mustard. The Rabe Spreewälder Konserven products can also be found in 100ml and 200ml tins, in 1000ml buckets or in 30L "hobbock" containers.

SPREEWALD: A NATURAL PARADISE

Centuries of land cultivation have created a mosaic of meadows, countryside and forest, as well as a network of waterways that extend for over a 1,000 km, characterised by small rivers, canals and over 3,000 lakes and ponds. This is the Sprea Forest, a picturesque area south of Berlin, the

name which was taken from the river Sprea which flows throughout, is an alluvial plain in its natural state, where the development of heterogeneous environments, home to a wide variety of animal and vegetable species, is the lucky result of human intervention. There are still species of animals that live here, which in other places are in danger of becoming

extinct, or have already disappeared, such as the black swan, the otter and the beaver. In 1990, in order to help this countryside, the Sprea Forest was declared a biosphere world nature reserve, recognition which was strengthened by UNESCO in 1991. This biosphere nature reserve offers numerous opportunities to closely discover this unique



heritage, a true natural paradise. If you love nature, you must visit this area incredibly rich with vegetation, where you can take trips on a boat, a canoe or a bike (the region has around 7,000km of cycle trails), go fishing, listen to the sounds of the forest or visit the villages around it with their traditional houses made from tree trunks and their splendid gardens.



➤ LÜBBENAU: THE SECRET CAPITAL

The main town of Spreewald was called the “secret capital” by the poet Theodor Fontane (*); the little Lübbenau (with around 16.000 inhabitants) is a real gem, a unique place despite the numerous presence of tourists all year round. Within the town’s small confines, it’s not hard to find the Grosser Hafen, the large port, from which lots of navigation companies set sail. At Lübbenau there are lots of attractions for visitors, starting from the historical centre you can explore the port or the castle (Schloss Lübbenau), today a luxurious hotel that rises within a beautifully equipped park. The city walls, built in the Middle Ages when the first settlers arrived, archeological digs have found relics from the 8th or 9th Century, these interesting objects which show the region’s rich history can now be found in the museum next to the city’s port.

() Heinrich Theodor Fontane (Neuruppin, 30 December 1819 – Berlin, 20 September 1898) was a German pharmacist, writer, poet considered to have been a representative of poetic realism.*



➤ THE SPREEWÄLDER GURKEN IDENTIKIT

The Spreewälder Gurken IGP is a cucumber belonging to the family of the Cucurbitaceae and it is planted from April to June if grown in the open air, or from December in a heated area such as a greenhouse. Harvesting lasts two to three months and begins around three months from planting, when the fruit is still not ripe it is a shiny green colour. The Spreewälder Gurken IGP can be from 4 to 12 cm long with firm, crispy pulp with a typical slightly bitter taste. The production area of the Spreewälder Gurken IGP is within the territory of the Spreewald, in the southern part of the federal state of Brandenburg.

ONE PRODUCT... LOTS OF RECIPES

The history of the Rabe Spreewälder Konserven is characterised by success built over time, the result of continual improvement made possible through experience gained from generation to generation, allowing the company to refine and optimise its systems of cultivation, production and conservation. Today this German company takes credit of having a very wide production, which is mainly concentrated on the most famous vegetable of the area, the cucumber. This vegetable is the main ingredient for lots of recipes and is sold with many different flavours, each with a unique taste: natural, with peppers, with vinegar, with garlic, etc. This variety needs a very flexible process for production and putting into jars, which must be able to switch quickly and easily from one format to another, to maintain high levels of operational efficiency within the plant. The machine will be also used to pack other products like tomato sauces, seasoning sauce or spread. For five generations the Rabe Spreewälder Konserven company has produced, packed and distributed a wide range of pickles made from vegetables cultivated in the Spreewald. Apart from the famous cucumber, the company also sells products with pumpkin, red and white cabbage etc. These come from trusted, local farmers who guarantee an immediate supply of fresh vegetables which makes all the preparation phases of the pickles much faster and therefore they are put into jars in the least time possible, guaranteeing that everything inside the jar is fresh and genuine.



THE WORD TO THE CUSTOMER

→ INTERVIEW WITH MARKUS BELASCHK President and CEO of Rabe Spreewälder Konserven



Q: Rabe Spreewälder Konserven holds a leading position in the production of pickles, above all for the famous Spreewald cucumbers. What are the key factors to your success?

A: Our aim is to make people's lives simpler and more delicious. We try to combine family traditions, that date back to 1898, with new ideas, technology and trends, putting all our knowledge and experience, lots of love and limitless passion into our work. Thanks to this, we obtain high quality products that have gained the appreciation and respect of many consumers and partners in Germany and other countries.

Q: What are the main elements at the basis of your choice to invest in a new CSK ERGON shrink wrapper provided by SMI?

A: Everyone knows that you can't stop time! One of the most important aspects at the basis of a successful firm is constant market analysis into trends and changes; adapting immediately to new market conditions and trends, not only helps to avoid unpleasant consequences to sales, but favours the firm's development and strength. Investing in a new CSK 50T ERGON produced by SMI, should increase efficiency and help us to reply to our customers' requests in a more flexible way, by proposing new packs and products.

Q: In terms of flexibility, innovation and efficiency, what do you require from suppliers of packaging machinery?

A: At the moment we are a small company, we live by being flexible! This is without a doubt our main competitive advantage compared to bigger companies. The elevated flexibility of the new packer is possible through the reduced number of components involved when changing format and by the high level of technology that is used to carry out the procedure. This means that less time is spent going from one type of production to another, and this is one of the main reasons that we chose to invest in SMI machinery. The useful efficiency of resources and the use of latest generation technology are essential elements for the output and reliability of our production line.

Q: What are the market trends at the moment?

A: Currently market trends are slowly taking us to a choice of food that is healthier and very diverse, based on a strong regional "background". Today's consumers pay more attention to the amount of sugar and fat in food and more and more often artificial additives and preservatives are being put under the microscope. At the same time, shops are requesting products that cost less, are safer and that can be stored longer. All these aspects are important, as they come from the needs of the final consumers of our products, therefore, they deserve quick appropriate replies all of which become possible through the use of modern production systems that are automated and versatile.

Q: What role will sustainability play in the food industry over the next 5-10 years?

A: The Earth's population is increasing constantly, while the resources on this planet are limited and running out quickly. Therefore, the efficient sustainable use of existing resources is fundamental to allowing the ecosystem and our social fabric to continue over a long period, While in the short term, economic obligations are pushing everything involved in the economic cycle to use resources in a reasonable and cautious way. Therefore, we can say that sustainability, in all its aspects, is an element of extraordinary importance for the future survival of every company.

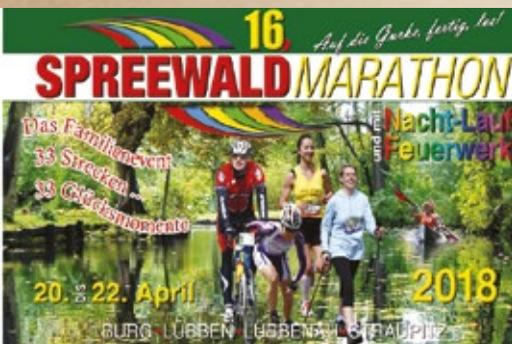
IN THE HOMELAND OF CUCUMBERS, HISTORY AND CURIOSITY

You can't go to the Spreewald without tasting these typical pickled gherkins (cucumbers) - Spreewälder Gurken - which is now an IGP product, that has to its name a long tradition passed down from generation to generation. Here are a few curiosities about this vegetable:

- it was already famous in the German Democratic Republic (GDR), after Germany was re-unified in 1990, the Spreewälder Gurken IGP was one of the few products still available.
- In the 2003 film "Good Bye, Lenin!" produced by the German Wolfgang Becker, the cucumber is one of the favourite foods eaten by the mother of the protagonist, Alex. Alex wants her to believe that he is still working in the GDR, so with great difficulty he tries to get them for her.
- There are cucumber fields in all the Spreewald, the biggest part has been protected since 1990, like the Spreewald Biosphere World Nature Reserve.
- In the area of the "Sprea Forest" over 40.000 tonnes of cucumbers are picked each year, eaten fresh or pickled, they are greatly appreciated as a side dish for plates of meat or cheese.



- The Spreewälder Gurken IGP is so well-known, that it has given its name to the Gurken-Radweg, or the "cucumber bike path".
- Every year the Spreewald-Marathon starts to the shout of "Auf die Gurke, fertig, los!", or "On your cucumber, get set, go!".



OVER 15.000 YEARS AGO THE EARTH'S SNOW WAS PURE, INTACT AND UNCONTAMINATED. IN CANADA, THE SNOW FROZE IN A VERY COMPACT WAY CREATING ENORMOUS WALLS OF ICE, SHELTERED FROM THE IMPURITIES OF THE OUTSIDE WORLD. THOUSANDS OF YEARS LATER WE CAN BENEFIT FROM THIS UNIQUE TREASURE, TODAY, THANKS TO THE USE OF MODERN BOTTLING TECHNOLOGY, THIS GLACIER WATER BOTTLED BY THE ICE AGE GLACIAL WATER COMPANY REACHES THE TABLES OF MILLIONS OF CONSUMERS IN NORTH AMERICA AND THE WORLD. TO REPLY TO NEW MARKET NEEDS, IN 2017 THE CANADIAN COMPANY TURNED TO SMI FOR THE SUPPLY OF A COMPLETE NEW BOTTLING AND PACKAGING LINE FOR 0,5 L AND 1,5 L BOTTLES IN PET WITH A PRODUCTION CAPACITY OF UP TO 12.000 BOTTLES/HOUR.



ICE AGE GLACIAL WATER CO.

➤ **SECTOR: WATER**

ICE AGE GLACIAL WATER COMPANY

Delta, BC, Canada

www.iceageglacial.com

➤ **12.000 BOTTLES/HOUR PET LINE**

- Integrated System ECOBLOC® ERGON 6-24-6 HP VMAG
- LSK 25T ERGON shrink wrapper
- LWP 30 ERGON wrap-around packer
- APS 1550P ERGON palletiser
- Conveyors, labeller, inspection system, CIP and pallet wrapper.



GEO LOCATION

ICE AGE

GLACIAL WATER COMPANY

A UNIQUE TREASURE THAT IS WORTH DISCOVERING

Founded in 1992 as Watermark Beverages Inc., Ice Age Glacial Water Company is a Canadian company that has grown rapidly in the bottled water sector, earning itself a leading position in the North-American premium bottled water industry.

The main company brand is Ice Age Premium Glacial Water, considered to be one of the best glacier waters on the continent and has won many important awards.

Over the years the Ice Age brand has become synonymous of unmatched purity.

This Canadian water has won many awards for its design and packaging quality and was awarded the gold medal by the American Tasting Institute in 2002 and 2003 for its taste and the quality of its composition.





The naturally pure Ice Age water is sold in lots of different formats that come from the bottling plant in Delta, a town in the metropolitan area of Vancouver, part of British Columbia. Ice Age Glacial Water Company collects, bottles, transports and sells a product that is 100% devoid of bacteria and which keeps its uncontaminated pure quality during the production phase.



100% NATURAL AND PURE

Pure natural water from a glacier, a unique treasure and one of the most well-kept secrets in Canada.

This is Ice Age Premium Glacial Water, born from the torrent Alpine Creek, in the fjord of Toba, British Columbia, fed by the ice from the Hat mountains (belonging to the Coastal Glacier Range mountain chain) which rise in a totally uncontaminated environment about 200 miles north-west of Vancouver, far from houses and industry, where over 175 cm of rain falls every year.

The water that flows from these glaciers has very low mineral content (less than 5 mg/l), a factor which usually only snow or melted ice has, as the freezing of water vapour is a process of purification.

As a precaution, however, the Ice Age Glacial Water Company bottling plant has a process of UV and ozone so that the unique structure and character of the water remain pure.

All the products that are bottled at the Ice Age Glacial Water Company come from glacier sources and are 100% natural as they are not subjected to any working process and have minimum filtration.

The glacier source, Alpine Creek, from where Ice age glacial Water originates, is defined as "live" because of its high level of negatively charged ions, generated naturally by the environment, these provide the water with nutritional values as recommended by doctors.

This source is isolated from any kind of urban or commercial pollution and the water only has 4 parts per million (PPM)* of Total Dissolved Solids (TDS), compared to many other waters that contain over 300-500 parts.

This is a factor that determines the absolute purity of products from the Ice Age Glacial Water Company.

→ *(*) The value Parts Per Million measures the concentration of very diluted solutions and indicates the parts of solute in every million parts of solution.*

➔ **THE SECRET IS IN THE ICE**

Water is vital for the body's health and well-being. There are lots of different natural waters classified by their composition or their source. One type, which is particularly rare and precious, is glacier water, this is considered to be one of the best because it is extremely pure and uncontaminated. Its purity, low amount of mineral salts and high capability makes it especially suitable for taking care of our health and beauty. Because of these particular characteristics, glacier water is often used in the preparation of cosmetics, creating high quality products that do not damage the human organism.



FOR COMPETITIVE PRODUCTS YOU NEED HIGH TECHNOLOGY PLANTS

Ice Age water has won lots of awards for its taste and bottle design, especially significant are the medals won for its low content of dissolved solids (minerals), that is equal to 4 parts per million.

In April 2005 Ice Age Glacial Water Company (then Watermark Beverages Inc.) introduced the brand Vortex 9.5, a premium alkaline water with a PH of 9.5 that provides important benefits together with the presence of natural antioxidants and electrolytes.

This Canadian company has a cutting edge bottling plant that has been operating since summer 2016, it respects the most severe production standards and allows consumers to drink bottled water as pure as if it had come straight from its glacier source.

Ice Age Glacial Water produces only BPA (*) free bottles to package this precious resource.

() BPA stands for Bisphenol A, an organic compound that is often used to produce plastic and resin, it is controversial because it has similar effects to hormones that are considered to be toxic for humans.*





NATURE'S SUBLIME RULE

What makes us love nature so much? Maybe those incredible sensations which are mostly unexplained, such as the sublime wonder that is felt when a beautiful view is seen! Or that deep peace that is felt while we are contemplating it. Therefore, we need to take a moment to explore the world around us. If we are in Canada, in British Columbia, we must go to discover the uncontaminated kingdom of

the Rocky Mountains, with its countryside safeguarded by enormous natural parks. Constellations of pretty villages offer lots of different activities to their visitors, to make any trip unforgettable. And... step by step, reaching the valleys, we then discover the priceless gift that the glaciers have given to man, a clear mirror of water of a colour that is hard to describe, which changes constantly according to the position of the sun.

Nature is without a doubt the protagonist of British Columbia, in this region of Canada's extreme west, you go from the uncontaminated countryside of the Haida Gwaii, where it's not hard to meet the natives, to the extraordinary countryside of the Rocky Mountains with the enormous natural parks (Yoho National Park, Glacier National Park, Kootenay National Park and Revelstoke National Park).



The town of Squamish for example is an enchanting gift from nature, a happy meeting place of the ocean, alpine forests and fluvial countryside, its splendour is pre-announced by the extraordinary sight offered by the waterfalls of the Shannon Falls Provincial Park and by the 652 metres of "The Chief", the granite cliff to which the Stawamus Chief Provincial Park owes its fame. The countryside of western British Columbia offers a unique sight of the islands that fill the intense blue of the Pacific. From land to sea, nature continues to surprise and with over 18 hours of navigation you can travel through the Inside Passage (the door to Alaska) and admire one of the most spectacular scenes of water and mountains in the world.

➤ FOCUSING ON BRITISH COLUMBIA

British Columbia is in south-west Canada on the coast of the Pacific Ocean. From a morphological point of view the province is characterised by the presence of two massive mountain chains: the Coastal Glacier Range and the Kootenay Rocky Mountains. The area has four national parks, one of which is the Glacier National Park, ploughed by roads with breath-taking views that go through picturesque passes surrounded by snowy peaks, and the Kootenay National Park, with its huge hot springs. The Canadian Rock Mountains and the fjords of the Inside Passage offer some of British Columbia's most famous views, its capital, the beautiful, refined and elegant Victoria, is on the island of Vancouver, the largest Pacific island in all North America, which is almost completely covered by a thick temperate rain forest. With over 3.5 million visitors per year, Victoria is an important destination for local and international tourism, it has won the title of one of the country's most beautiful and liveable cities and is famous for its port, beautiful coastline, delightful climate and the English-style gardens. In the city the architecture is mainly Baroque Revival with the imposing Parliament building completed in 1897, and the modern Netherlands Centennial Carillon tower in front of the large Royal BC Museum complex.



THE TOP TEN MOST PLEASANT CITIES ON THE PLANET: VANCOUVER IS ONE

Set between the Rocky Mountains and the Pacific Ocean, the discovery of British Columbia often begins in Vancouver, which is among the top ten of the most pleasant cities on the planet every year, and which, with a population of 2.5 million inhabitants in the metropolitan area, is the largest metropolis in the province. The population density is the fourth highest of North America, after New York, San Francisco and Mexico City. Multicultural (52% of the residents do not speak English as their first language), naturalist, modern and tied to its past, Vancouver is a city that has understood how to harmonise aspects that are apparently contradictory; museums, city parks and ethnic quarters can do nothing but delight visitors in a harmonious fusion with a financial area dominated by glass and steel skyscrapers. Vancouver's economy was traditionally based on the resources of British Columbia (forests, mines, fishing and agriculture), but over time it has changed and today, this Canadian city plays a vitally important part in service and tourism sectors.

Vancouver, after Los Angeles and New York, has become the third largest centre in North America for making films, so much so, that it has earned itself the nickname of "Hollywood of the North", it has also grown enormously in the high-tech industry.



➔ **BRITISH COLUMBIA AT THE CINEMA**

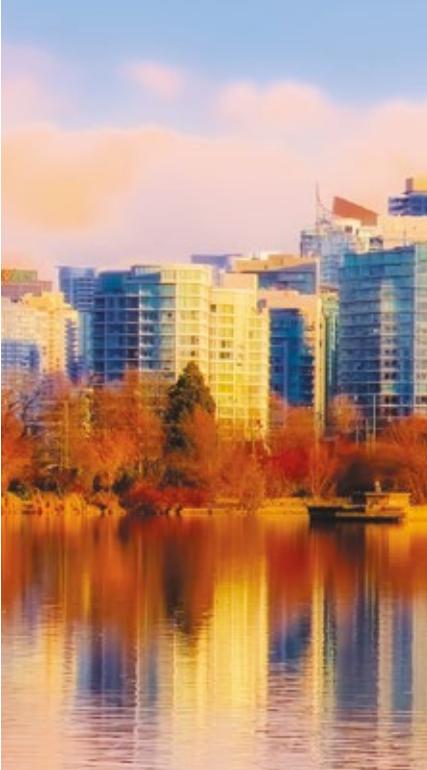
"The Revenant" is the masterpiece that earned Leonardo Di Caprio an Oscar. The film that was directed by Alejandro González Iñárritu, in which the American actor plays the role of a hunter abandoned by his companions in an icy forest after he had been attacked by a bear, was filmed in British Columbia in extreme weather conditions, and impossible temperatures that dropped below minus 30 degrees. Canada (the country of the maple) however, is not always so gruelling and inaccessible, between spring and summer the temperatures stabilise, revealing scenery of incredible beauty, with crystalline lakes that reflect the shades of the sky, green forests populated by a vast amount of fauna (black bears, mountain goats, giant moose, caribou reindeer and grey foxes, falcons, herons or Atlantic puffins), uncontaminated lands, avantgarde cities rich with cultural events.



SMI SOLUTIONS FOR ICE AGE GLACIAL WATER CO.



For the bottling and packaging of Ice Age and Vortex 9.5, the Canadian company turned to the experience of SMI, who provided a turnkey solution for a complete line working with the customer in every phase of the project from design to installation. The proposed solution envisaged the integrated system of stretch-blow moulding, filling and capping of bottles in PET by the ECOBLOC® ERGON series together with machines for secondary packaging from the LSK ERGON and LWP ERGON series and an APS ERGON palletiser. The whole plant has latest generation automation and control, combining the best technology available for “smart factory” management.



➤ INTEGRATED SYSTEM ECOBLOC® ERGON 6-24-6 HP VMAG

Production: stretch-blow moulding, filling and capping of 0.5L and 1.5L bottles in PET with still water having a production capacity of 12.000 bottles/hour (0,5 L).

Main advantages:

- the machine carries out the stretch-blow moulding, filling and capping of PET bottles in a single unit, therefore it doesn't need a rinser or air conveyors between the blower and the filler
- compact and flexible solution for creating bottles with flat or sports cap
- the blower has reduced energy consumption, thanks to the preform heater module with high efficiency IR lamps, and to the stretch-blow moulding module equipped with a double stage air recovery system that allows the reduction of energy costs tied to the production of high pressure air compression.

➤ LSK 25T SHRINK WRAPPER

Packaged products: 0.5L and 1.5L PET bottles, both with flat and sports cap.

Packages worked: the 0,5 L bottles are wrapped in collations of 4x3, 5x4 and 6x4 film-only, in double lane 3x2 film-only and in 4x3 and 6x4 tray + film; the 1.5L bottles are collated in 4x3 and 3x2 film-only and 4x3 tray + film.

Main advantages:

- automatic machine suitable for packaging varied containers in varied collations in film-only or tray + film, with quick and easy format changeover allowing the switch of production in limited time, according to the present and future needs of the company
- compact and ergonomic structure, that allows the shrink wrapper to be installed even in narrow restricted spaces and makes it easily accessible also to the less expert operators.



➤ LWP 30 WRAP-AROUND PACKER

Packaged products: 0.5 L and 1,5 L PET bottles, both with flat and sports cap in film-only already packed in 3x2 (0.5 L and 1.5 L bottles) arriving from the LSK 25T shrink wrapper.

Packages worked: the 0.5L loose bottles are packed in wrap-around corrugated cardboard in 3x4 and 4x6, while the already packed 3x2 packs are packed in wrap-around corrugated cardboard boxes in 4x3 and 4x6; the 1.5L loose bottles are packed in wrap-around corrugated cardboard boxes in 3x4, while the 3x2 in boxes of 4x3.

Main advantages:

- packaging process with wrap-around system equipped with a mechanical device which groups the product, with the advantage of forming the cardboard box around the transiting bottles without having to stop the machine
- ideal solution for a package that is resistant to impacts and is able to protect the product during transport
- the possibility to graphically personalise the cardboard box to capture the consumer's attention, offering greater opportunities for the marketing and promotion of the product.



THE WORD TO THE CUSTOMER

→ INTERVIEW WITH TONY NAZAROFF Plant Manager of Ice Age Glacial Water Company



Q: Ice Age Glacial Water Company is a leader in the production of glacier water in Canada. What are the key factors of your success?

A: Our glacial water is the best in the world. As we tell our customers: "Simply try Ice age glacial water and compare it with your favourite water" then after they try it, we have customers for life. The key to our success can be found in the close cooperation among employees, distributors, agents and partners, that not only believe in us, but also in our brands. We have an incredibly pure water source near the gulf of Toba BC from where we take the glacier water which is characterised by its low total content of dissolved solids (minerals). The result is water with an

incredible pure fresh taste, of which the uniqueness and quality are recognised by our many faithful customers.

Q: What factors pushed your company to invest in a new bottling line provided by SMI?

A: Market demand and global water sales have increased notably over the last few years and our pre-existing structure wasn't able to support these necessities. Therefore we decided, to carry out this investment to upgrade the capacity of the plants to match the growing demand of our products.

Q: What do you require from the suppliers of bottling and packaging machines in terms of flexibility, innovation and efficiency?

A: The machinery installed in our factory must be able to work lots of different containers and formats efficiently, taking into account that the Ice Age Glacial Water Company will continue to be one of the most automated bottling companies in North America and the world. For these reasons, the producers of the machinery installed in our production lines must share the same objective of reaching minimum functional efficiency of 95%.

Q: What are the main market tendencies today? Looking at 5-10 years in the future, according to you what role will sustainability play in industries that produce water?

A: Above all we need to be flexible, because the water industry is subject to



many and unexpected changes, we must always be able to react immediately to any minimum signal coming from the market. As consumers want products that are healthier, they pay more attention to what they eat and drink. In fact, in North America there is a growing consumption of bottled water and we foresee that this tendency will continue over the next years. Consumers are moving away from sugary and carbonated drinks and they are looking more and more for "healthy hydration"; for this reason glacier water is the perfect answer. Looking 5-10 years into the future, we foresee that the sustainability of processes and consumption will have an important role in the bottled water industry. Water is a fundamental resource for life and, as in some parts of the world it is becoming more and more scarce, it is indispensable that every human being behaves cautiously and responsibly with the Earth's resources, reducing the environmental impact of their own daily actions and choices.



➤ APS 1550P AUTOMATIC PALLETISING SYSTEM

Packed products:

- packs of 0.5L bottles in film-only in 4x3, 5x4 and 6x4 and 1.5L bottles in 4x3, arriving from the LSK 25T shrink wrapper
- packs of 0.5L bottles in 4x3 and 6x4, 1.5L bottles in 4x3 in tray + film arriving from the LSK 25T shrink wrapper
- wrap-around boxes of 0.5L bottles in 3x4 and 4x6 and 1.5L bottles in 3x4 arriving from the LWP 30 wrap-around packer.

Pallets worked: 1016X1219 mm USA pallets

Main advantages:

- single-column system with two Cartesian axes and SCARA technology, extremely flexible and easily suited to the logistic conditions of the end of line area
- compact structure characterised by a central column that integrates the feeding of empty pallets, the insertion of inter-layer pads between one layer and the other and palletising operations
- reduced maintenance costs and low energy consumption, thanks to the simple mechanics of this machine and the use of robotic components
- extremely simple automation and management control. Thanks to the intuitive interface man-machine, even the less expert operator can efficiently manage all end of line palletising operations.

➤ CONVEYORS

Function: transporting loose PET bottles to the automatic packers and of the packs created by these, in particular: moving the bottles from the outfeed of the integrated ECOBLOC® ERGON system; moving in infeed, and in outfeed, to/from the LSK 25T ERGON shrink wrapper and to/from the LWP 30 ERGON wrap-around packer; moving packs and boxes in infeed to the APS ERGON palletiser.

Main advantages:

- the loose product conveyors installed at the Ice Age Glacial Water Company at Delta, ensure the continual flow of the containers to the infeed of the LSK 25T and LWP 30 and of the packs from the outfeed of these two packaging machines to the palletiser
- easy operator use during the production cycle
- simplified maintenance operations
- the modular structure and the high compatibility with other systems make carrying out installation, start up and inspection operations easy
- the use of high quality components and materials resistant to wear and tear, that reduce friction and noise, maintaining the quality of the transported goods
- format change-over time reduced to minimum for the rapid switch from one product to another
- elevated system reliability, thanks to the structure and components in stainless steel AISI 304.



SER

Wax Industry



The Mole Antonelliana, the Egyptian Museum, the royal palaces, the Holy Shroud, the giandiotti ... these are just a few of Turin's treasures. This fascinating city on the banks of the river Po, is an unmissable destination for people yearning to discover the splendour of its past and at the same time, discover the latest modern technology. You can take part in its lively cultural life through art exhibitions and social events, not forgetting the pleasure of wandering through its markets or taking a break in one of the cities many historical cafes. Turin is the right place to visit if you are looking for somewhere dripping in history, with a touch of magic and a trace of elegance. Turin is a magical city, that was home to many Italian royal families, but it was also headquarters to secret Masonic meetings. When speaking about magic and magical places, unavoidably, we begin to think of the magic light of candles, mysterious fascinating objects, that have accompanied men during the most important moments of their lives. In the outskirts of Turin, in the town of Santena, the magic of candles becomes a reality thanks to SER S.p.A. producer of world famous industrial wax which chose an SMI shrink wrapper, from the SK series, to create their packs in tray + film and film only.

➤ **SECTOR: CHEMICAL AND PHARMACEUTICAL**

SER S.P.A – WAX INDUSTRY GROUP

Santena, Turin, Italia

www.cere.it

- Shrink wrapper SK 400T ERGON
- Conveyors



GEO LOCATION

SER

Wax Industry

“ FOR PERSONALISED PRODUCTION YOU NEED FLEXIBLE PLANTS ”

Founded in 1988, SER S.p.A. specialises in the production of customised wax, created according to customer requirements and intended for very varied applications, from perfumed candles to wax for industries such as food, cosmetics, building, packaging, clothes etc. Since 2003, when it was bought from Cereria Sgarbi S.p.A. and Price's Patent Candles Limited (two prestigious companies in the European market for candles), SER has been the head of an internationally famous group which, in its sector, is characterised by noted innovative capacity. A determining

factor for the gratifying success of the Piedmontese company, is without doubt, its ability to create bespoke wax cut to size for the customer. For this reason, it is fundamental to have flexible, efficient, production plants, able to easily adapt to the different formats of candles that are being worked, to carry out quick production change-overs and at the same time maintain high levels of operational efficiency. All these requirements have been satisfied by an SMI shrink wrapper, SK400T provided by SMI. This machine is able to pack candles of numerous sizes in varied formats in film only or tray + film, in single or double lane.



WHERE THE HEART OF THE COMPANY IS IN RESEARCH & DEVELOPMENT

The research and development department of SER S.p.A. bases its work on a few essential principles, like the high professionalism of its staff, the broad experience gained through years and years of activity and sector research, the use of cutting edge instruments, careful design and automated production. The success of this company from Turin, is tied to their business ability to produce bespoke wax for every customer, offering a preliminary, specialised, free of charge consultation to create products that can optimise the productive cycle, reduce waste and total costs and increase quality. At the moment SER has a range of waxes with over 500 different formulations, created for around 800 companies which it supplies. Such a wide range, attracts new customers who can see the readymade products, and choose the one which satisfies their requirements. If a customer however,



requests something completely new, the research and development department can create a product ad hoc, the characteristics

are then placed in the company data base, so that production can be launched automatically at any moment.



SMI SOLUTIONS FOR SER: DYNAMIC AND AUTOMATIC PRODUCTION



Every day SER produces dozens of different waxes in a completely automatic way. Every customer receives wax that has been specifically studied to respect the requested standards, so production only begins once the wax has been ordered. This means that delivery times are very short, and the production lines need to be sized in a suitable way to meet this necessity. SER has technologically advanced industrial installations, which, thanks to continual upgrading and extension, maintain double the production capacity compared to the daily average of orders that they receive, this way they are able to regularly satisfy potentially high peaks in requests.





Energy, flexibility, a high level of professionalism, product quality and safety, the inclination to accept technological challenges, quick implementation and spirit of collaboration are all values which characterise every sector of this Turin based company, because the final objective is the commercial success of the customer. SER S.p.A. works towards meeting this objective by providing high value products, together with packaging solutions suitable for the correct conservation and protection of the products and which also boost the company's image by catching the eye of the final consumer.



➔ SHRINK WRAPPER SK 400T ERGON

Packaged products: candles in jars in PET and pressed cardboard in many shapes and sizes.

Packages worked: packs 6x4 in film only, 6x4 in tray + film, 4x2 film only, 2x1 and 2x2 film only in double lane; possibility to work the following packs: 3x1, 3x2, 5x2, 6x2 and 6x4 film only, 4x2 in tray + film and 6x4 in tray + film in double layer.

Main advantages:

- machine equipped with electronic divider, automatic format changeover, film reel trolley, automatic centring system for printed film provided with marks
- quick, simple format changeover: ideal solution to quickly switch over from one pack format to another, alternating production for different types of candles
- high operational flexibility: the SK 400T shrink wrapper installed at SER S.p.A. can pack numerous formats, packing candles in film only and tray + film, in single or double lane. The use of just one shrink wrapper to pack a wide range of products, in numerous pack configurations is without a doubt, an advantageous choice from an economic point of view, as it allows quick and easy plant adjustment for meeting multiple market requests and allows the working of personalised products based on specific requirements from the final customer
- the SK shrink wrapper can be supplied with additional equipment that increases the basic functions allowing high level personalisation on the final pack, such as the special accessory the "stacking arm", an ideal solution for working packs in tray + film in 2 layers
- machine equipped with a continual cycle packaging system, guaranteeing a flowing production process eliminating jerky movements, this protects the containers from impact, guaranteeing greater integrity, better pack quality and less mechanical wear and tear.





PRICE'S

THE CANDLES OF HER MAJESTY QUEEN OF ENGLAND

Price's has been a synonym of candles since as long ago as 1830, when William Wilson and Benjamin Lancaster began to produce candles in the city of Bedford, in the East of England. Using the more economical tallow, instead of the very expensive beeswax, over a short time the business turnover grew considerably, and from 84

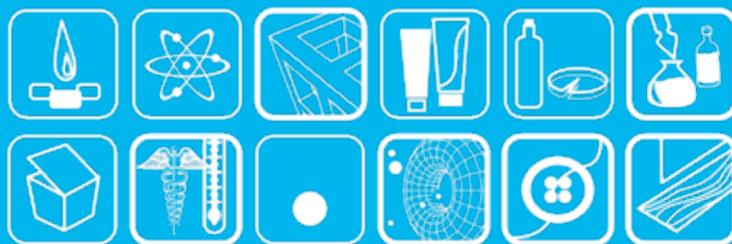
employees in 1840, in 1855 there was a workforce of over 2300 people. Over a short time Price's Patent Candles Ltd. (this is the full name) became the biggest global producer of candles and official supplier to the English royal family. It is thought that for the wedding of Queen Victoria to Prince Albert of Saxony in 1840, the company was asked to create a special candle to commemorate the important event. In 1919, Price's was bought by Lever Brothers Ltd. and in 1991, it passed into the hands of a private investor. Ten years later the British company went into controlled administration and was taken over by the Italian company, Cereria Sgarbi S.p.A., which, in the summer of 2003, was also taken over by SER Wax Industry of Santena (Turin). The know-how matured over almost two centuries of experience, has made Price's Patent Candles Ltd. a true leader in the candle sector, so much so, that the company has 114 patents for its creations. Today Price's is still supplier to Her Majesty Queen of The United Kingdom, and this "royal" status means that it's a synonym of excellent quality from every point of view.





➤ NOT ONLY CANDLES

Becoming part of the SER Wax Industry group, has allowed Price's to continue to increase and improve their production range, that today is truly vast. Starting from the classic conical ivory or red candles, to candles in tins, pillar candles, tea-lights used as food warmers and many more. Candles are still the main core of the business, but over time they have evolved and now they produce products like liquid wax farm light (oil for candles) or more simply perfumed diffusers, and candles that are purely decorative, considered to be objects of beauty and decoration. Among the latest creations at Price's, the ones that stand out are the "Luxury" range of candles, the wax of which, has become a hand and body cream, the Ninna Nanna candles in tins made from natural waxes with a selection of fragrances studied to help and reduce daily stress, balsamic candles that use natural essences to free the respiratory tract. Price's is the candle for excellency, an elite product that can be found in hotels, restaurants, private houses... almost everywhere.



THE MAGIC OF CANDLES

Candles have always accompanied man in the most important moments of our lives and for this reason, they are often associated with unique, magical experiences like the traditional, enjoyable gesture, of blowing out candles on a birthday cake. Confirmation that, in reality, in life everything is magical. Tradition has us believe that even this simple ritual hides an act that goes beyond simple appearance, in fact candles represent a summary of emblems and symbolic meaning.

The constitution of the candle itself can be allusive, it is in fact, similar to man: it has a body (the wax), a soul (the wick), a spirit (the flame) and it carries out its role just like man: birth (lighting), growing old (melting) and dying (extinction). For this symbolic representation of mankind, in magic practices the candle is an element of primary importance, since its composition, colour and orientation act as a connection with the invisible forces of the world.



FOCUS ON WAX AND CANDLES

CANDLES

A CANDLE IS A SOURCE OF LIGHT, TYPICALLY MADE FROM A WICK INSIDE A FLAMMABLE SOLID (WAXY MATERIAL), THE WICK, ONCE ALIGHT SLOWLY CONSUMES THE WAX UNTIL IT HAS MELTED COMPLETELY.

THE WAXY MATERIAL THAT MAKES UP THE CANDLE IS A SOLID MIXTURE, CONTAINING A BASE MATERIAL (PARAFFIN, BEESWAX, STEARIN, GEL) AND ADDITIVES (MICROCRYSTALLINE WAX, HARD WAXES, OPACIFIERS, DYES, POLYETHYLENE, RESIN AND PERFUME).

CANDLES ARE MADE IN VARIOUS SHAPES, COLOURS AND SIZES, AMONG THE MOST COMMON ARE THE TEALIGHT, SMALL AND SHORT, USED IN FOOD WARMERS AND ESSENCE BURNERS, VOTIVE CANDLES, CHURCH CANDLES AND CANDLES FOR CAKES.

What is wax?

Wax is a natural or synthetic, organic, plastic substance, it is solid at room temperature and becomes liquid when melted. According to its origin, wax is classified in natural wax (animal, vegetable, fossil or mined and petrol) and synthetic wax (polymeric ethylene, naphthalene chlorate and Fischer-Tropsch waxes).

Where is wax used?

At home, in the office, at school, outside, almost everywhere we are surrounded by products that have some kind of direct or indirect benefit from the use of wax. If this is obvious when we talk about candles, matches or polish for various surfaces, it's less obvious when referring to pencils, cement prefabs, tyres, pharmaceutical products, cosmetics, electricity cables, packaging, material, greaseproof paper, explosives, fireworks, paint, plastic, chewing gum and so on. In these cases, wax is used to facilitate production, (for example, wax helps to separate products from moulds) or it can be an additive that is used to confer or improve the characteristics of the final product (for example, tyres).

How did the candle originate?

The origin of the candle is tied to the history of man's discovery of fire, it is easy to imagine how the long lasting light produced by the candle, had a fundamental role in the lives of ancient populations. Poems, philosophical works, declarations of war and peace were written by candle light, because of its workability, wax has always been widely used, writing was learned on tables of wax, figures of animals and divinities were shaped from it. Until the invention of the electrical bulb, introduced in 1880, thanks to the genius of Thomas Edison, the candle was synonymous of illumination. Drawn for the first time in works from Ancient Greece, candles and candelabras began to have a symbolic meaning of protection and with the spread of electricity, they became decorative objects used to create a romantic and magical atmosphere.



INNOVATE TO GROW: THE HISTORY OF SER

After they had finished studying chemistry in 1982, two brothers Giuseppe and Piergiorgio Ambroggio, joined the staff at S.p.A. Ing. Piacentini e F.lli in Turin, one of the largest companies in the sector of industrial wax. Over the next few years, they acquired a great deal of knowledge about the problems with the use of wax in industrial applications. Seeing this as a great business opportunity in this sector, the two brothers came up with a development plan which they proposed to the company. Their idea was to develop new activities oriented towards the customization of customer products. Even if the management at Piacentini S.p.A appreciated their ideas they decided not to use them, therefore, in 1988 the Ambroggio brothers decided to set up a new business at Cumiana, in the province of Turin: Synthesis and Research. The name itself shows the intentions and spirit that characterised the company over the following years, that is, designing and producing customised articles for each new customer. They invested on the ability to produce high market waxes instead of standard products, the strategy has proved to be a winner and the company has doubled its revenue every three years. Their growth is constant and the production plants at Cumiana start to be insufficient, so in 1994, Giuseppe and Piergiorgio Ambroggio took over Ing. Piacentini e F.lli S.p.A and from this merger came SER S.p.A. with the headquarters in Santena, still in the province of Turin. In the years following the merger, the new company invested



significantly with a full upgrade to the production plants, the storage areas, the office blocks etc. so as to adapt the new company structure to its new aims for expansion. In the summer of 2003, the Turin based company took over Cereria Sgarbi S.p.A. and Price's Patent Candles Limited, two prestigious business realities in the European candle market, market leaders in Italy and Great Britain. The group's objective was to create a world-famous brand, characterised by innovative abilities within its reference sector.



SER S.P.A – WAX INDUSTRY GROUP



Year of founding: 1994



Place of production: Santena, Italia



Revenue 2016: € 110.520.163



Employees: 218



Activity: production of bespoke wax based on the customer's requirements with a wide range of applications: from candles to various kinds of wax for use in industries such as: food, cosmetics, building, packaging, clothing etc.



TURIN: THE CITY OF A THOUSAND FACES

Elegant, but never ostentatious, active but never frenetic, cultured and refined, Turin is one of Italy's most versatile and fascinating cities, a city with a thousand faces. Ancient capital of the Savoy, home to the Risorgimento, pillar of industry, city of art and culture, as well as being a centre of innovation, Turin prides itself on having dozens of museums, historical buildings, excellent restaurants and bars. A city that respects its past, that invests in its future, this can be seen through the many modern art galleries and fashion houses showing the talents of the new generations. With its enormous artistic and cultural patrimony, accumulated over centuries of history and with the energy of a city open to the world, the capital of Piedmont offers continual surprises to its visitors. A perfect combination of architectural and monumental jewels, museums (over 40), art galleries, lots of good food, world famous events like the Salone del Libro (book fair), Salone del Gusto (food fair) and the Turin Film Festival, a rich calendar of things to see and do all through the year.



“ AT THE CENTRE OF ANCIENT, MODERN AND CONTEMPORARY ART ”

In Turin you become amazed and charmed by the incredible testimonies, past and present, of the artistic genius of mankind, like the numerous Palaces of Power and the royal palaces that have kept their original charm and are the “highlight” of many tours. From Egypt to the Far East, Turin has one of the most important museums in Italy and not only Italy, the unique collection inside the Museum of Ancient Egypt. But Turin's symbolic monument is without a doubt the Mole Antonelliana. At first it was designed to be a Jewish temple, the building began in 1863 and was designed by Alessandro Antonelli (from who it took its name). The neoclassical building is 167,5 metres tall and it has been the protagonist of many historical events which caused it to need structural reinforcement and some reconstruction. The top of the famous cupola, called the “Tempietto” is situated about 85 metres above the ground, it can be reached by a modern lift to enjoy the spectacular 360° view of Turin. Standing out above the “Tempietto” is the spire, with a diameter of 15 m, at the top of which is a pinnacle with an octagonal base, inspired by Neogothic architecture. In May 1953, the spire crashed to the ground, damaged by a tremendous storm and it had to be rebuilt in reinforced concrete. The Mole Antonelliana is home to the National Cinema Museum, the only one of its kind in Italy.



ALIMENTOS MARAVILLA



A KALEIDOSCOPE OF COLOURS - A MIXTURE OF BRIGHT BOLD COLOURS: YELLOW, RED, GREEN, BLUE, WITHOUT ANY SHADES TO THESE COLOURS, THAT PUT TOGETHER BECOME A RAINBOW WITH COLOURS EVERYWHERE. IN GUATEMALA EVERY OBJECT, EVERY EMOTION HAS A COLOUR! THE SHAWLS AND DRESSES OF THE WOMEN, THE MARKETS, THE OUTSIDES OF THE HOUSES, THE MARKETS, THE CHURCHES, THE RELIGIOUS COSTUMES IN THE RELIGIOUS PROCESSIONS AND EVEN THE REGIONAL BUSES THE "CAMIONETAS" OR THE "CHICKEN BUS", OLD, YELLOW, AMERICAN SCHOOL BUSES, RECYCLED, DECORATED, ADORNED WITH DARING, CREATIVE PAINTINGS THAT TRANSMIT JOY AND HAPPINESS.



- **SECTOR: JUICE**
ALIMENTOS MARAVILLA S.A.
Escuintla, Guatemala
esdemaravilla.com
- Shrink wrapper LSK 40F ERGON
- Conveyors



GEO LOCATION

With almost 16 million inhabitants, the biggest part live in the rural area of this difficult but spectacular land (covered by mountains for two thirds), this Central-American country has a rich and glorious history. At the time when the Romans were expanding in the Mediterranean (VI-I Century B.C.), the Maya city of El Mirador, which today is buried in the tropical forest of Northern Guatemala, was the most populated of all pre-Colombian America, with a population of around 100.000 inhabitants and pyramids of 250.000 m3. These bright, multi-colours of the Guatemalan cities can also be seen within the production plant of Alimentos Maravilla S.A.. Here everything is clothed in the colours of the fruits used for the numerous varieties of product which are packed, at 40 packs/minute, by the new shrink wrapper LSK 40F ERGON recently provided by SMI.



LEADING COMPANIES NEED CUTTING EDGE TECHNOLOGY

For more than 30 years, products by Alimentos Maravilla have been consumed by people from Guatemala and Central America. This company, which has its headquarters in Escuintla (60 km south of Ciudad del Guatemala), has gained a leading position in Guatemala and surrounding countries with an important growing market share in Mexico and the Caribbean, thanks to the vast experience that it has acquired in the preparation of juices, soft drinks and beverages. Today, Alimentos Maravilla has a portfolio of more than 100 types of beverages and fruit juices from the most prestigious brands on the market, some of which, Del Monte, Tampico, Nectar Maravilla, Sipi, Del Frutal, Del Fruto, V8 Splash, Natura. Among the strong points of this company, we need to highlight the perfect harmony between customers and suppliers, these are considered to be strategic business partners, collaborating together to offer quality products at competitive prices in line with market requirements. Alimentos Maravilla S.A., has around 2.000 employees who work in the production and distribution departments. It invests enormously in research and development to create new products and to strengthen its partnership with other producers, in this way its brand portfolio grows continually. The development of the company, also comes from its strategic choice of choosing latest generation machinery, which produce efficiently and with reduced costs. Among the recent investments, there is a new SMI shrink wrapper, the LSK 40F ERGON and some conveyors that are used for transporting loose and packed products, this acquisition allows Alimentos Maravilla to easily face production changes caused by mutating market requirements.



FOR A MARKET THAT NEEDS TO BE FLEXIBLE

Alimentos Maravilla needs to satisfy mutating market needs and to quickly switch from one production to another. The packaging line where the LSK 40F ERGON shrink wrapper provided by SMI is installed, works varied kinds of containers (cartons, bottles in PP or cans in aluminium), therefore, the company from Escuintla needs a flexible plant that can quickly switch from one product to another and from one pack format to another. This aim can only be reached by using cutting edge technology created for the “smart factory”, like the automation and management that controls the film shrink wrapper LSK ERGON by SMI. The collaboration between the two

companies goes back a long way, SMI installed their first shrink wrapper in the Alimentos Maravilla plant in 1998 for tray + film packaging. Today, inside the plant of this Guatemalan company, you

will only find technologically advanced machinery, certified for food production, which carry out automated processes according to criteria of maximum efficiency, security and quality.





ALIMENTOS MARAVILLA S.A.



Year of founding: 1983



Production headquarters: Escuintla, Guatemala



Revenue: € 79,200,000



Employees: 2000

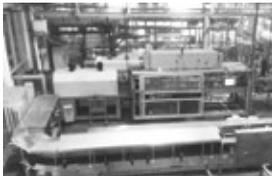


Activity: production and sale of fruit beverages and juices.





SMI SOLUTIONS FOR ALIMENTOS MARAVILLA



The first time SMI supplied the Alimentos Maravilla plant in Guatemala was in 1998, later the company purchased other machines, today they have a total of five automatic packaging machines in their plants. These machines, among which the latest LSK 40F ERGON, are able to pack bottles in PP, cardboard cartons and cans in various pack formats at a maximum speed of 40-45 packs/minute. Alimentos Maravilla is characterised by its wide variety of products, these include many different brands of food and drinks, contained in PP bottles cartons or cans. For this reason it is fundamental to have an extremely flexible secondary packaging machine, like those of the LSK ERGON series, which can quickly and easily adapt to different formats in order to produce efficiently and economically.



➤ **SHRINK WRAPPER LSK 40F ERGON – production up to 40 packs/minute**

Packaged products: cartons in 0.2 L and 0.33 L, bottles in PP in 0.3 L and 16 oz cans

Packages worked: packs in film only in numerous formats according to the product being packed: format 3x1 in double lane (carton 0.2 L); 3x2 in double lane (carton 0.2 L and 0.33 L; bottles in PP in 0.3 L and 12 oz cans); 4x3 (12 oz cans). The machine is also fitted to work these containers and bottles in PET in 0.235 L, 0.3 L and 0.6 L in other future formats

Main advantages:

- automatic machine suitable for packaging different types of containers (cartons, plastic and metal containers)
- the shrink wrapper is supplied with the optional device for working packs in double lane film only, offering greater flexibility to the customer to work packs in 3x1 and 3x2
- every LSK ERGON model is equipped with a mechanical product grouping system, format change over is manual
- The shrink wrapper LSK ERGON has reduced dimensions and is the most ideal solution to satisfy requirements when production space is limited
- Excellent relationship quality/price: although equipped with cutting edge technological solutions and highly reliable components, the LSK ERGON series has very competitive prices
- The film cutting unit is designed compactly and the blade is managed by a brushless direct transmission motor with “direct-drive”, this makes it more precise when cutting and simplifies maintenance

➤ **CONVEYORS**

Function: transporting loose containers to the infeed of the shrink wrapper LSK 40F ERGON and transporting the packed containers in machine outfeed.

Main advantages:

- the conveyor solution for loose product installed at the Alimentos Maravilla plant consists in the manual loading of the containers that need to be packed. The conveyors provided by SMI ensure smooth movement without any hitches to the loose products and the packages at the outfeed of the shrink wrapper
 - Easy operational use thanks to a simple and intuitive man-machine interface
 - simplified maintenance operations
 - format change over time reduced to minimum for a rapid switch between one production and another
-

ALIMENTOS MARAVILLA: A LITTLE BIT OF HISTORY

Alimentos Maravilla S.A. was founded in Guatemala in 1983, it started out as a beverage and juice company manufacturing its own recipes and brands like Sipi and Del Frutal. It had immediate success and in very little time it had won itself a very respectable place on the national and export market (Central America, Mexico, Caribbean, United States and Canada). In 1993 the Guatemalan company was granted the license, to produce and sell beverages for Tampico Beverages, while in 1998 it began producing tomatoes and beans under license for Del Monte Foods.

In 2003, Alimentos Maravilla launched a new line of sport drinks under the brand Revive, this, coupled with the purchase of brands Frito, Del Fruto and Marinero from the of the British-Dutch multinational Unilever, strengthened their leadership in the Central American market. In the same year the company absorbed a plant in Honduras, also part of Unilever, and began an alliance with the Campbell Soup Company that brought about the launch of V8 juices in Central America and the Caribbean. 2005 and 2006 were characterised by numerous innovative expansion projects on foreign markets, thanks to the introduction of various lines



of fruit juices with different flavours (Del Frutal and De La Granja) and the tinned Marinero cocktail, made from vegetables and clams in broth.



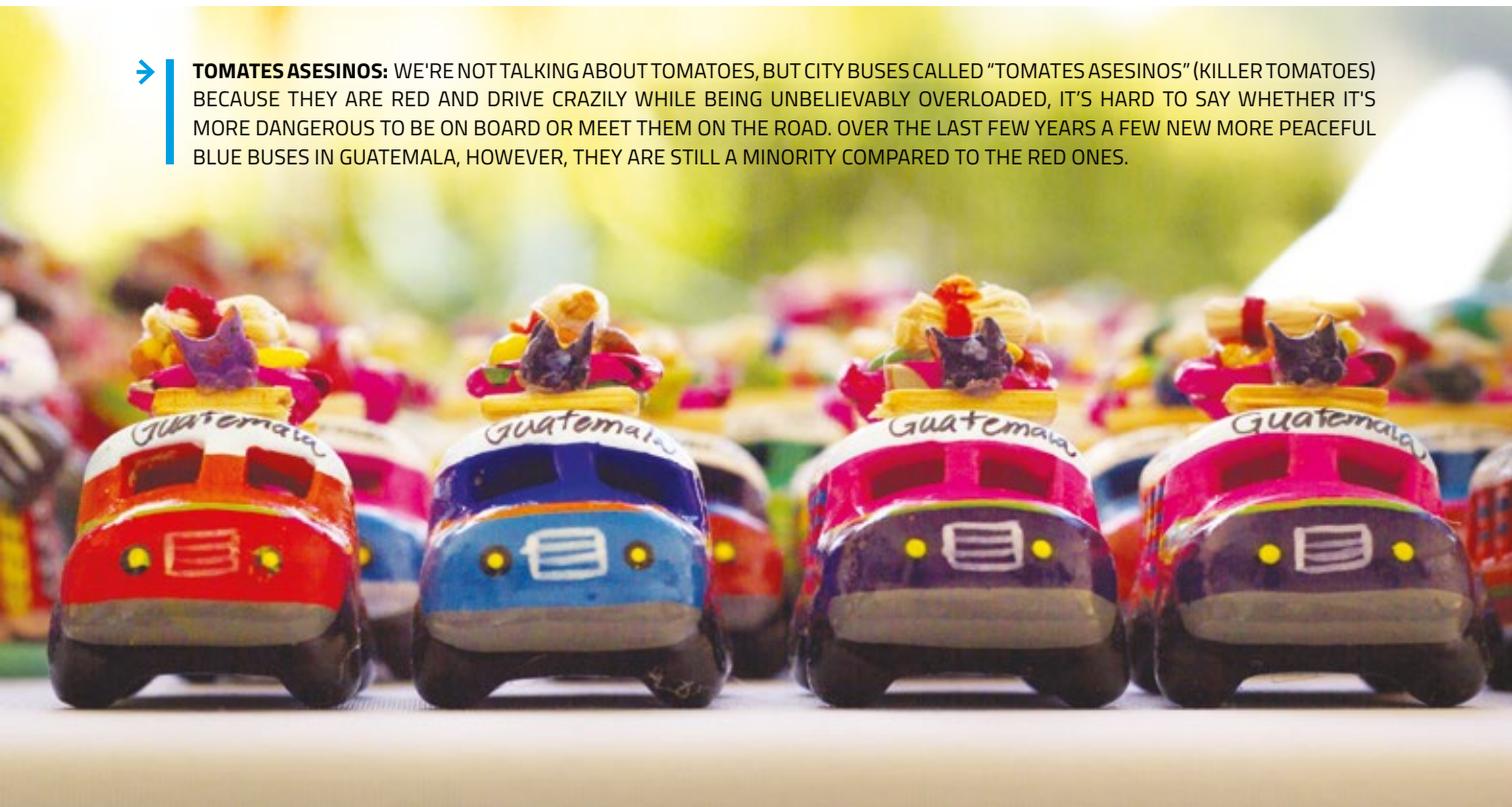
ALIMENTOS MARAVILLA TODAY

Thanks to the wider economic opening of recent years, Guatemala has seen an increase of economic flow to and from the country, that at the same time has improved the standard of living, widened the market, the quality of products has improved and prices have dropped. All this has caused many companies to profoundly change their organisational structures, this also happened to Alimentos Maravilla, they had to react very quickly to update and replace machinery and plants, offer new products and improve their image to continue to be competitive on the international market. At the moment, Alimentos Maravilla has a portfolio of over 100 products in compliance with international quality standards HACCP and ISO, established within a network of high capacity production plants equipped with the most modern technologies.

It's not by chance that this Guatemalan company is considered to be the third most innovative company in the country and the tenth best run. Apart from using them for its own brands, Alimentos Maravilla uses its modern plants to bottle and pack nectars, juices, cocktails, tomato sauces, ketchup and fried beans sold for own label brands of numerous supermarket chains.



➔ **TOMATES ASESINOS:** WE'RE NOT TALKING ABOUT TOMATOES, BUT CITY BUSES CALLED "TOMATES ASESINOS" (KILLER TOMATOES) BECAUSE THEY ARE RED AND DRIVE CRAZILY WHILE BEING UNBELIEVABLY OVERLOADED, IT'S HARD TO SAY WHETHER IT'S MORE DANGEROUS TO BE ON BOARD OR MEET THEM ON THE ROAD. OVER THE LAST FEW YEARS A FEW NEW MORE PEACEFUL BLUE BUSES IN GUATEMALA, HOWEVER, THEY ARE STILL A MINORITY COMPARED TO THE RED ONES.



THE MAYA AND ARDUOUS NATURE

Impossible lands? Not for the Maya, who for over two thousand years have lived in the arduous valleys and that even today, represent the biggest part of the population, maintaining their social structure, language and traditions so much so, that this region is called the Maya Highlands. Crossing the Guatemalan Highlands from Guatemala City to the Mexican border, means taking a trip through their history, refined, elegant, cultured, the Maya used a civil calendar, the Haab, made from "kin" (days), twenty "kin" made up one "uinal", 18 "uinal" became a "tun". Then there were the 5 days "uayeb", which means ill-fated, during which nothing was done, everyone

stayed at home and prayed to the gods. The Maya were expert astrologists and had the concept that the world would end, even today the descendants of those ancient populations do not want to give up their coloured costumes, their culture and their traditions. The place that attracts the most amount of people in Guatemala is without a doubt, the ancient Maya site of Tikal. Situated in the heart of the Petén forest, this archaeological area is world famous thanks to its high temples and spectacular pyramids with their steep steps, which, surrounded by thick jungle, dominate the forest below. Other attractions in the area are: Uaxactun, 30 km south of Tikal, Rio Azul with its numerous tombs, El Mirador

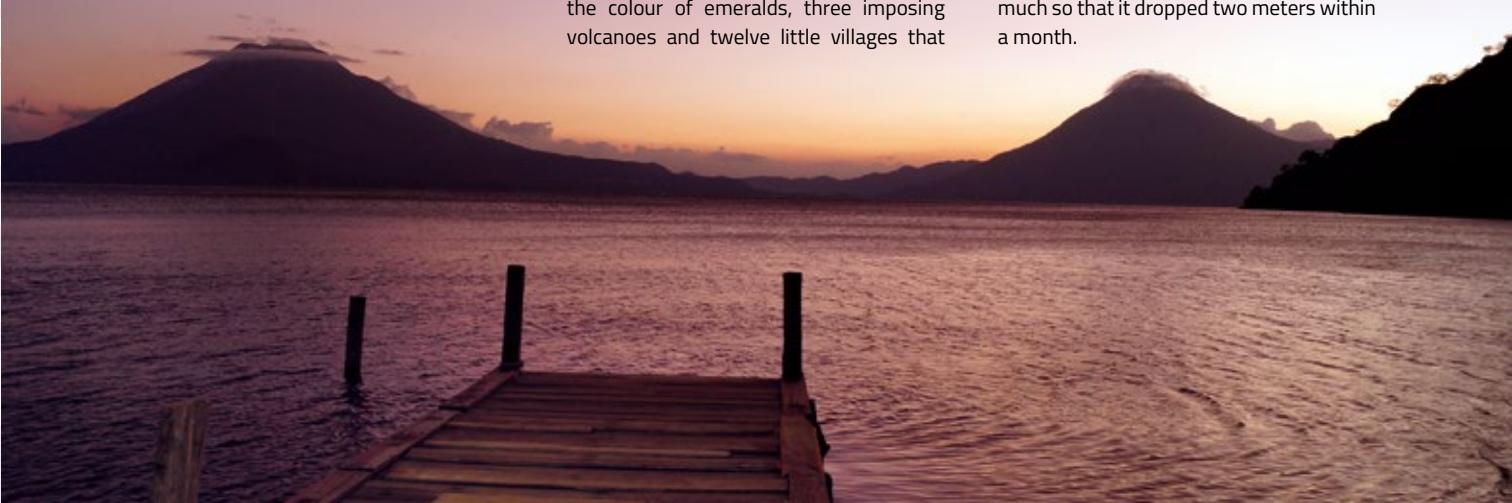
famous for the El Tigre Pyramid, 60m high with 18 floors. The settlement of El Mirador was the first politically organised state in America, it had 26 cities and was known as the Kingdom of Kan, at the beginning of the X century A.D the civilisation collapsed through drought and barbaric invasions and the Maya Empire was divided up into numerous city-states throughout the central highlands.



LAKE ATITLÁN

On leaving the capital, the intense greenery of the hills and woods shut out the noise of the traffic. In south Guatemala, you can visit Lake Atitlán, a majestic blue mirror of water and the National Park – a UNESCO Patrimony – safeguarded by two volcanoes and a dozen tiny indios villages. By many considered to be the most beautiful lake in Latin America, it offers breath-taking scenery, water the colour of emeralds, three imposing volcanoes and twelve little villages that

spread around its shores, these are the ingredients for dreaming with your eyes wide open. The Maya considered it to be the centre of the world, and not without reason the hippies chose it as the ideal place to retreat from the modern world. On 4 February 1976, a very strong earthquake (magnitude 7.5) hit Guatemala killing more than 26,000 people, the earthquake fractured the bed of the lake causing it to drain away a large quantity of water, so much so that it dropped two meters within a month.



TRADITIONS, NATURAL WONDERS AND AN EXPLOSION OF COLOURS

Colours, flavours, sounds, unusual natural scenery, sought-after handmade objects: this is Guatemala, one of the most authentic countries in Central America. A destination that is far from mass tourism, rich in tradition and incredible places, magnificent archeological sites and jewels from nature that cause incredible, unique emotions. If the Tikal national park, part of the UNESCO patrimony, is the most famous attraction, the most fascinating experience is that of the view of the Highlands, lands famous for the production of the renowned Guatemalan coffee, where the multicoloured Maya population live. A multitude of silent giants climbing towards the sky, rising through the clouds to then drop unexpectedly, into vertiginous gorges. All around, you can see thick coniferous woods and in the background, the patchwork of the coffee plantations that fight against the continual attack from the tropical

vegetation. It's the majestic volcanoes of Guatemala, thirty-three in all, that loom over the Highlands and that have stood in a solid line, for thousands of years outlining the wonderful countryside and reminding everyone of their supreme power of destruction. Every now and then, they wake up and destroy entire cities, giving whoever visits this country, the sensation of continual change, everything is ancient but at the same time modern, nothing can resist the strength of Nature.



GUATEMALA AND ITS CUISINE

The cuisine in Guatemala is not very different to that of nearby Mexico and, even if it is slightly poorer, it still offers the opportunity to taste numerous dishes, everywhere you can get tortillas, black beans, "enchilada" and numerous types of meat and fish (excellent seafood), grilled and less spicy than in Mexico. One of the most widespread drinks is beer, blonde or dark, generally with a low level of alcohol. Guatemala also has a great production of rum.



ANTIGUA, THE MOST BEAUTIFUL

Considered to be the most beautiful place in Guatemala, Antigua Guatemala (or simply Antigua) is a real jewel of the colonial era, with its rich history and fascinating architecture, the Baroque churches, little stone roads, its luxurious colonial buildings and great cultural life, make it a place not to be missed by anyone who visits the country. "Antigua Guatemala" means "Old Guatemala",

founded on the 10 March 1543, after the nearby town, Ciudad Vieja was destroyed by floods. For more than 200 years, Antigua Guatemala was the headquarters of the military governor of the Capitaneria Generale del Guatemala, a vast area part of the Spanish colonies, that included almost all of today's Central America.





➤ GUATEMALA CITY

With almost 5 million inhabitants in the metropolitan area, the country's capital is one of the largest, urban, built up areas of Central America. Founded in 1620 by the Spaniards, Ciudad del Guatemala, which rises on the mountain range of Sierra Madre at 1500 metres above sea level, has more than once been destroyed by violent earthquakes and then had to be rebuilt. The oldest part of the city is worth a special visit with its central square, Plaza de la Constitución, the Catedral Metropolitana de Santiago completed in 1867 and the Palacio Nacional de la Cultura (built between 1939 and 1943 and which miraculously survived, without damage, the devastating earthquake in 1976). A difficult but emotional city, this modern metropolis has managed to maintain the fascination of its history and ancient traditions, amongst the chaos with which it is identified.



MP ERGON

THE EVOLUTION OF PACKAGING: NEW MODELS OF PACKAGING MACHINERY HAVE BEEN CREATED

Packaging is considered to be a strong promotional asset, just as much as advertising, as it gives the package an original, captivating “look” that attracts the attention of a large number of consumers while shopping, this offers a great advantage to the producer of the packaged goods compared to their competitors. For this reason secondary packaging machines have a fundamental role for any company that wants to invest in the launching of a new package, as a way to strengthen their share of the market in a

determined sector, or to gain a new type of clientele. The SMI packaging machines from the MP ERGON series are equipped with the best technology available on the market today. They can overwrap containers, in PET, glass, aluminium and cartons, with cardboard sleeves, creating the so-called “cluster pack”, with a maximum speed of 300 packs/minute (according to the model of the machine and the shape/size of the containers that are being packed). The new range of MP ERGON machines are equipped with cutting-edge technology, this guarantees

that they are more operationally flexible, energy saving, environmentally friendly, easy to use and to manage within a high-speed production line. The range of overwrap cardboard sleeve packers from the MP ERGON series, includes models (series MP BK) designed especially to pack classic brick carton containers, used for example, in the dairy and fruit industries, for milk, fruit juices etc.



PACKAGES TO PROTECT THE PRODUCT AND ATTRACT ATTENTION

The food and beverage industry are now using production procedures that are more and more efficient, are inter-changeable and have reduced costs. They use machines and plants equipped with latest generation management and automation systems,

permitting the quick and easy change over from one type of production to another. Packaging with overwrap cardboard sleeves is the ideal solution for high speed production lines and offers numerous advantages:

- The continuous motion packaging cycle on the models of the MP ERGON guarantee fluid procedures, allowing the packaged products to remain intact and maintain their quality.
- The hot glue seal on the bottom of the pack is precise and long lasting.
- The overwrap cardboard sleeve packages are highly resistant to knocks and easy to manage, open and store.
- The packages created by an MP ERGON "cluster pack machine" can easily be customised with original graphic themes that have a strong visual impact, able to impact on the sensations and emotions of the consumer that influence purchase decisions.



MP ERGON

PACKAGING MACHINES READY FOR THE "SMART FACTORY"

All the overwrap cardboard sleeve machines from the MP ERGON series are designed and built, according to key concepts of the platforms of Industry 4.0 and IoT (Internet of Things). These concepts can be seen in numerous technical innovations introduced on the new SMI models:

- The touch-screen control panel, is equipped with a graphic "user-friendly" interface, this allows the new MP ERGON packaging machines to be managed in an easy, intuitive way and has advanced real-time diagnostic and

technical support functions.

- The ergonomic design characterised by slightly curved safety guards allowing all the motors to be mounted externally to the mechanical groups, making maintenance operations much easier.
- The closure system of these guards, made from light-weight, corrosion resistant, anodised alluminium, is equipped with a deceleration system, that slows the final phase of closure causing the guard to close gradually and safely.
- The new SMI secondary packaging machines are almost exclusively

equipped with ICOS brushless motors with integrated digital servo-drive.



MP ERGON

VIDEO

scan this QR code



> **MP ERGON**
max 300 ppm

- Packaging in overlapping cardboard sleeves
- Optional infeed conveyor with special divider guides for loose product in 1 or 2 lanes
- Continuous motion rotary cardboard blank picker, equipped with 6 groups of suction cups with a vacuum system generated by an electronic pump
- Continuous motion packaging system
- Continuous motion product grouping device with electronically synchronised fingers driven by brushless motors
- Cardboard magazine situated above infeed conveyor
- Posyc 15" control panel, running the whole length of the machine on guides
- Hot melt glue sealing of pack bottom

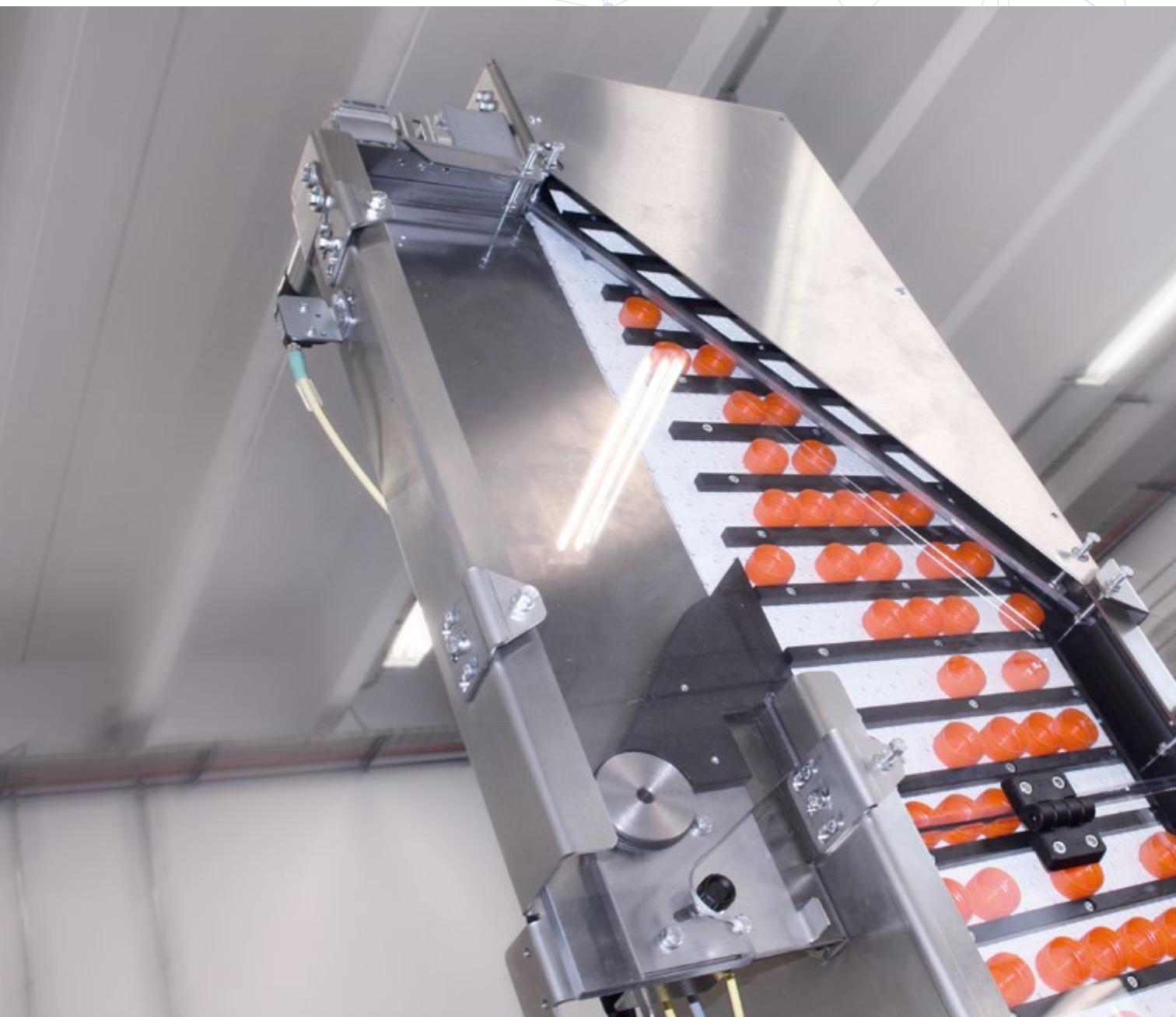


The new MP ERGON are divided into three macro families:

- MP models for production up to 150-300 packs/minute, equipped with outfeed rotodivider and product separator (MP TR) with possible pack turner (optional).
- MP BF models for production up to 150-300 packs/minute with bottom flap, equipped with outfeed rotodivider and product separator (MP TRBF) with possible pack turner (optional).
- MP BK models for brik cartons with a production of up to 150 packs/minute, equipped with outfeed rotodivider and product separator (MP BKTR) with possible pack turner (optional).



EASY-CAP FROM TODAY CAP POSITIONING IS EASIER



Automation procedures on bottling and packaging lines concern every machine on the line, even those that carry out simple operations. For this reason SMI has created the EASY-CAP gravitational cap grapper, this takes the

caps from the hopper and keeps them in the correct position until they reach the bottling line. Mechanical functionality and technological know-how unite within this new EASY-CAP system, the main characteristic is the integration of three different devices in just one structure, each carrying out a specific job. The EASY-CAP gravitational cap grabber is made up of a motorised hopper for the loading of the loose caps (made from AISI 304 steel, it can hold around 400 litres of product), an elevated conveyor that takes the caps from loading height to unloading height and finally the outfeed cap discharger that is fitted to the cap channel. The conveyor is equipped with special guides, which according to the cap that is being positioned have their own special shapes and sizes, making sure that during transportation the caps are in the correct place and direction. The movement of the conveyor guides also allows the inclination of the conveyor to be changed, in this way, any cap that has not been placed correctly can tip over and fall back into the hopper. This gravity selection system is equipped with special guides that keep the chosen caps in place, while carrying them towards the single lane outfeed channel which can be positioned at a height chosen by the

operator. The outfeed channel interfaces with the capper's transportation system and the caps leave the cap channel in the right direction with the hollow part downwards.



➤ THE BEST OF THE NEW GRAVITATIONAL CAP GRABBER

- Compact structure, made from AISI 304 steel, suitable for any layout solution
- Fluid and linear movement allowing only correctly positioned caps to be carried along the conveyor, while the others fall back into the hopper through gravity
- System that is suitable to lots of different kinds of plastic caps
- "User-friendly" operator interface, allowing the operator to use the machine easily and, efficiently

SMI TRAINING CENTER

LEARN, DO, GROW!

Gaining new knowledge, using this knowledge and accumulating experience to the benefit of professional expertise, are objectives that can easily be reached through special focused training. For example, taking part in training organised by the SMI Training Center, an employee learns how to correctly use all the functions of the packaging machine that they are going to manage on the production line, maximising the potential offered by modern technology for the company's growth and development. For these reasons, SMI has developed a range of training programmes for its customers,

sharing experience and technical knowledge acquired in over 30 years of activity in the bottling and packaging sector with high technology content. These courses are provided for a wide range of professional people who work in production plants owned by SMI customers, they are aimed at providing the necessary abilities to gain the most from the potential offered by each machine, reaching maximum plant production, producing in a more efficient and safe way, quickly resolving potential problems, improving the levels of global production.

Based on thirty years of experience acquired from designing, building and installing machinery and systems for bottling and packaging, SMI has created complete training courses for a wide range of operators. These courses are able to satisfy the requirements of all SMI customers that are aiming for maximum quality from their products and services, who would like to improve the ability of their staff, gain extra value from the machinery that they have purchased and be ready to successfully face present and future challenges from a market that is constantly evolving.





➤ THE ADVANTAGES OF SMI TRAINING

- Significant investment return
- Increase of machine efficiency over the average long term
- Reduction in plant management and running costs
- Reduction in time for start-up, format change-over, stoppages
- Increase of production output and quality
- Professional growth of internal staff
- More efficient and autonomous “troubleshooting” solutions



SMI TRAINING CENTER
VIDEO

scan this QR code

The training courses organised by the Training Center SMI are aimed at line operators, maintenance technicians, production supervisors, electricians, electronic and mechanical supervisors that would like to learn more about the SMI machines and the latest generation automation systems inspired by Industry 4.0 and IoT that they are equipped with. The training courses are taught by highly specialised instructors, who use teaching methods based on a mix of theory taught within a classroom using varied teaching methods, and practice which is taught in machine assembly areas, this way it is easy to understand if the concepts taught in the classroom have been understood. Courses proposed by the Training Center SMI are usually offered to a group of maximum 6 people, this guarantees the best teaching/learning techniques and the efficient evaluation of the results gained by the participants at the end of the course. The training courses are held at SMI headquarters in San Giovanni Bianco (Bergamo - Italy) or onsite at the customers plant. If they are held onsite, a classroom is needed for the theoretical lessons and the machinery must not be in production so that practical lessons can be held.

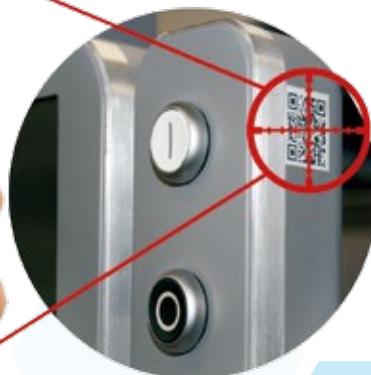


SMYREADER: QUICKLY ORDER YOUR SPARE PARTS THROUGH AN APP

Smi has developed a "mobile" app called "SmyReader", allowing SMI customers to quickly send a request for original spare parts and/or order them from their smart phone or tablet. SmyReader is a free app for Android and iOS technology that scans the QR code of the part mounted on the machine, this means that the customer can immediately identify the code of the part required, verify price and availability and generate an offer or request that is sent via internet to the SMI Spare Parts Office. It is a fast, easy to use instrument, that apart from being able to scan the QR code, it also offers the possibility to manually insert the code of the part required, available in the relative handbook. Thanks to SmyReader, the SMI customer saves time and can order any part, from anywhere, 24/7. The customer also has the possibility to immediately see the price and item availability, choose

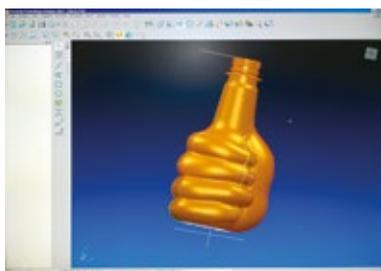


method of delivery and pay securely by credit card or paypal.



EMOTIONS BOTTLES: NOW YOU CAN SAY IT WITH A BOTTLE IN PET

SMI offers a service for the study of containers in PET that will have a high "appeal", a highly attractive bottle which attracts the consumer's attention, represents an important means of advertising for the product that it contains. You can't not look at a bottle with a particularly special design, admiring the work carried out with passion, creativity and originality by the design team at SMI, who listen to the requirements of the customer then develop something that is unique and bespoke. For Drinktec 2017, SMI presented the OK bottle, a container with a truly original design that reproduces the famous symbol of approval, with a fist and a vertical thumb giving the OK. The bottle is the work of artists, starting from a model made from chalk, the SMI designers then created the mould that is able to industrially produce the OK bottle in an integrated ECOBLOC® ERGON



system, that unifies in a single compact block, blowing, filling and capping any container in PET... even those in original shapes. Thanks to sophisticated technology, like the modern CAD centre equipped with latest generation devices, any model can be reproduced in 3D design, making it graphically possible to create and elaborate a bottle in PET.



➤ "EMOJI" BOTTLE!

In the era where we communicate emotions and feelings through "emoji" (the famous coloured faces), it wouldn't be surprising if somebody decided to show their feelings through a container in PET which demonstrates that feeling to those around them, for example by drinking from a bottle that is smiling (or, on the contrary, scowling). As a pack usually contains 6 bottles, the designers at SMI decided to create six different "faces", one for each bottle. This unusual project, developed for 0.25L bottles, can be adapted to a bottle of any capacity, furthermore, according to the model of blowmoulder purchased, the SMI customer can choose how many emotions to express on their bottles depending on the number of moulds installed on the machine, (for example, a blow moulder with 6 cavities can produce 6 different "emoji" bottles while one with 12 cavities can produce 12 faces and so on). The "emoji" has a strong, immediate communication impact on consumers, allowing companies in the food and beverage sector to direct the choices of consumers towards their products in a simple, amusing way.



OVERVIEW OF FOOD TRENDS IN 2018

Innova Market Insights (market research company that specialises in the food and beverage sector) has traced a classification of the main tendencies that will influence food in 2018, based on the analysis of the launch of new products and the results from consumer surveys and interviews. According to Lu Ann Williams, Director of the Innovation Division of Innova Market Insights, today's consumer pays a high level of attention to the importance of well-being and the environment, therefore, the first five tendencies that the market research company has identified for 2018 are the following:

- **Mindful choices:** consumers are more conscious of their food choices and want to know what is in their food and where and how it is produced.
- **Lighter enjoyment:** the appeal for food that is healthier and lighter in terms of alcohol, sugar, taste, consistency.
- **Positively processed:** consumer interest has grown towards the naturalness and minimal processing techniques, reviving traditional processes such as fermented foods, cold brew tea and coffee as well as the development of new ones.



- **Going full circle:** an increase in consumer expectation that companies and brands will pay more attention to the use of resources throughout the production cycle and product life, from innovative uses for food waste and more biodegradable and renewable packaging.

- **Beyond the coffeehouse:** while coffee is clearly trending among the "Millennial" and "Generation Z" consumers (those born between 1995 and 2010), tea is also seeking to reinvent itself with those of the younger generations. With the taste and experiential associations of coffee and the healthy image of tea, the industry is increasingly using coffee and tea as the ingredients of flavours outside the hot drinks and iced tea and coffee sub-categories across a wide variety of products such as energy bars, yogurt and jam.

To find out more, scan this QR code!



AROUND THE WORLD IN ONE STAND

In 2017 there were many important trade events around the world, such as Interpack and Drinktec, during which the staff of the SMI Group met hundreds of visitors that were able to appreciate and learn more about the numerous technological innovations of Industry 4.0 and IoT introduced into its production range.



FOCUS ON THE PRODUCERS OF ITALIAN PACKAGING MACHINERY

With a turnover of more than 6,6 billion euro, the sector of Italian automatic packaging machinery is one of the most vital parts of the Italian industry. It is also one of the sectors of national production with the highest inclination towards export (over 80%), made up of around 200-250 medium to large companies. It is proud to hold a position of absolute leadership around the world, in direct competition with the equivalent sector of German industry. It is a fact, that over 50% of automatic packaging machinery sold around the world, is produced in Italy or Germany.

(Dati Ucima - dicembre 2017)



TOP TEN TRENDS

WE'LL BE WAITING FOR YOU IN COLOGNE

The international trade fair Anuga FoodTec represents the most important platform in the world for food and beverage technology. It is the only fair that exhibits the entire production chain, for every process and packaging operation within the food and beverage industry. Hosting the best, modern technology that can be offered to companies within the sector in terms of ingredients, food safety, quality management, logistics and movement. Strong points of the previous edition were the high profile of the visitors and the number of international operators, evident sign of wide interest among the biggest industries of the sectors for the maximisation, development and innovation of their production plants.

ITALY - SWEDEN... A WINNING COMBINATION!

In Novembre 2017, the Swedish student Emma Lundberg took part in a project which involved SMI and the Istituto Tecnico Industriale Statale Paleocapa di Bergamo, which for the last few years has been twinned with the technical institute ABB industry Gymnasium di Västerås – Sweden. Västerås is considered to be a city with a strong electro-mechanical vocation, as the headquarters of numerous companies are situated there. The project involved the exchange between Italian and Swedish students (one of which was Emma) and



finished with an internship of 3 weeks in a local company. Emma Lundberg was placed with the technical department of SMI and had the opportunity to work on different projects, to use latest generation instruments like the 3D scanner and above all to take part in a FAT (Factory Acceptance Test), demonstrating through her duties, clear technical basics.



CAREER'S DAY

A BRIDGE BETWEEN TRAINING AND WORK

Innovation means investing in new resources and SMI never misses the opportunity to meet future generations, organising special career presentation days for high school and university students, the last one took place on Career's day at the Dalmine Faculty of Engineering Technology (Bergamo) on 28 and 29 November 2017.



THE SCHOOL ENTERS THE PLANT: PMI DAY

Taking part in the latest edition of PMI Day (day of the small and medium size businesses) SMI opened the doors of its plants and offices to high-school teachers and students. PMI Day is an initiative proposed by Confindustria Bergamo with the aim of uniting the world of education to that of employment.



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