

- Refriso Bebidas ■ PepsiCo Iberica
- Piacentina ■ Safi Water ■ Acrilex

# smi now

Magazine 2011 06





# NATI PER SUPERARE LE VOSTRE ASPETTATIVE.

.....

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“ Innovative technologies in harmony with the environment ”

# smi now

Editorial

In 2010, Smigroup has been able to maintain and strengthen its market position by mitigating the negative impacts of the economic crisis which has characterised the world market since 2007.

This past year has seen our group companies playing an increasingly important role, compared to the past, with regard to the development of innovative technologies, improving the balance between economic growth, environmental protection, energy saving and social responsibility. The projects we develop at SMI are aimed at achieving technically advanced results which also comply, in all aspects, with the most stringent parameters of economic and environmental compatibility of the production processes they undergo. Nowadays it is no longer sufficient simply to offer systems and machinery with high technological content to industry players from the "food & beverage" sector because, in addition to this aspect, our customers require solutions that are also "innovative" in that they are able to achieve essential objectives such as the environmental, economic and energy sustainability of their production.

We believe that we have created a series of products that are able to fully meet these requirements, among them, for example, the new ECOBLOC® PLUS system by the Smiform Division, which we shall discuss in the "innovation" section of this issue of "Sminow".

ECOBLOC® PLUS is a latest generation system which brings together, in one single machine, the functions of stretch-blow moulding, filling/capping and labelling of PET containers, thereby optimizing space, efficiency and consumption.

SMI Group's commitment to protecting the environment is also illustrated by SMI obtaining the UNI EN ISO 14001:2004 certification; this demonstrates how a company which produces industrial machines, such as ours, can organise its activities in perfect harmony with its surroundings and in line with the development requirements of its customers. Protecting the ecosystem in which we live has now become imperative for all human activities; only by restructuring their work so as to satisfy this new and pressing requirement can companies continue to grow and progress.

SMI is ready and willing to play its part in this great challenge, which is also a wonderful opportunity for collective improvement.

**Paolo Nava,**  
Chairman & CEO  
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# smi NOW

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**Food:** a sector which seems not to be touched by crises, neither in Italy nor abroad, especially with regard to canned foods. The food industry, which is also the biggest user of packaging, is strongly committed to reducing its environmental impact, avoiding over-packaging and requiring lighter packaging with unaltered technical characteristics.

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CONSUMPTION



UP TO 50%  
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**ECOBLOC® PLUS:**  
integrated system of  
stretch-blow moulding,  
filling/capping  
and labelling

>> **PAG.44**

UP TO 90%  
LESS WATER  
CONSUMPTION



## Harmony between Ecology and Business

SMI has obtained from AFNOR (the French body) certification for its Environmental Management System, which acknowledged its compliance with the UNI EN ISO 14001:2004 regulations.

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# Refriso Bebidas.




WATER & CSD SECTOR  
**Refriso Bebidas**  
 Sorocaba, SP, Brazil  
 » stretch-blow moulder  
 SMIFORM SR 10  
 » shrinkwrapper  
 SMIFLEXI LSK 35 F

## ■ The Many Flavours of Brazil



The majority of carbonated soft drinks brands produced in Brazil has, as their basic ingredient, a fruit, seed or extract deriving from locally-grown plants. In fact, in this large South American country, there is an exceptional variety of fruits, a large amount of which are used in the industrial production of fruit juices and carbonated soft drinks. Just think of the guarana-based drinks, which are made from a seed grown in the Amazon forest, whose consumption in Brazil exceeds that of cola-based drinks.

Brazil is the third largest market in the world for consumption of carbonated soft drinks, helped also by its warm climate. Nothing can beat sipping a cool drink made with coconut, guarana, soda or cola on a hot day. In Brazil, there really is an embarrassment of riches and everyone can lay their hands on a product that perfectly satisfies their own palate. One of the main players in this enormous "business" is located in Sorocaba, a town close to San Paolo in Brazil, where the company Refriso Bebidas has its headquarters. To increase the capacity of the 2 litre bottle PET line, the Brazilian company recently purchased from SMI an Smiform SR 10 stretch-blow moulder and an Smiflexi LSK 35F shrinkwrapper which are able to reach production speeds of 18,000 bottles per hour and 35 packs per minute respectively.

# Refriso Bebidas

## and product diversification

■ It is not by chance that Refriso Bebidas occupies a strong position among carbonated soft drinks manufacturers in Latin America. The company has been able to seize market opportunities and meet the growing demand for soft drinks which has been witnessed in Brazil in recent years. Outstanding professionalism and excellent know-how have been the decisive factors that have allowed Refriso Bebidas to expand its business, installing latest generation manufacturing systems and machines with high technological content. Faced with an increasingly demanding market, Refriso has managed to diversify its product portfolio, which now includes numerous brands of carbonated soft drinks, colas, energy drinks, fruit juices and other beverages. The "Bacana" brand is among the most successful of the Brazilian company and includes



carbonated soft drinks in several different flavours (cola, cola light, guarana, lemon, Tutti Frutti and grape, to name just a few). The products branded "Vedete", "Kiko" and "Original" offer an equally broad range of beverages with the flavours of cola, guarana, grape, pineapple, etc.), while the products in the "Red Night", "All Night", "Xapuri" and "Cachoeira" lines are the favourites among young people.



# Smi and Refriso Bebidas: technology at the service of the customer



2 litre PET bottles in 3x2 shrink film packs. The machine is also, however, able to package other types of containers already used by the Brazilian company, such as aluminium cans.

Absolute product quality and customer satisfaction are the priorities of Refriso Bebidas' "mission". For this reason, all drinks which leave the company's plants are subjected to continuous quality controls by a dedicated technical team.

■ The Refriso (Refrigerantes Sorocaba Ltda) company has acquired great experience in producing and packaging a wide range of non-alcoholic beverages in various flavours. The machinery installed at the Brazilian company's bottling plants uses the most advanced technologies in terms of flexibility, reliability and efficiency: key factors which allow for the production capacity and the product mix of the group's different commercial brands to be easily adapted based upon market demands and preferences, with low operating costs and optimal

system utilization. The production system is completely automated and guarantees rapid transitions from one container to another and one pack configuration to another. To enhance production of the 2 litre PET bottles, for bottling products under the "Bacana" brand, Refriso Bebidas turned to the technical expertise of SMI, opting for a 10 cavity stretch-blow moulder from the Smiform SR series; for end of line packaging, the Brazilian company chose an Smiflexi LSK 35F shrinkwrapper, which packs





## ▪ The uses of guarana

The indigenous peoples of South America have always considered guarana to be an elixir of life; an extremely valuable plant which provided them with food and a means of curing disease, alleviating pain and increasing physical stamina, by virtue of its tonic and stimulating properties.

Only the seeds of this plant were used, which each tribe used according to its own

"recipe". Tradition has it that clusters of half-open fruit were collected and put into containers filled with cold water to extract the outer layers.

After being cleaned, the extracts were roasted over a low heat and reduced to a powder, to which a small amount of water was added to form a smooth paste.

From this mixture "log" shapes were extracted and smoked on a fire of resinous wood. The log obtained in this way was grated when required.

Guarana is widely used in South America to prepare a famous soft drink, which is slightly fizzy, known by the same name, which, especially in Brazil, is synonymous with "soda".

The drink looks and tastes similar to cola-based drinks. It has a slightly stimulating effect and a sweet taste. As a medicine, it is available in tablets, sticks and, better still, powder. Still today, guarana is used to improve concentration, physical and mental stamina and to bring energy to the body.



An equal amount of care is put into the selection of raw materials and suppliers, two key factors in improving the efficiency of the production process and ensuring that the products on offer maintain their high quality level.

SMI do Brasil, SMI's local branch, has played a crucial role in advising Refriso of the ideal solutions for its present and future production requirements; the choice of an Smiform SR 10 stretch-blow moulder

and an Smiflexi LSK 35F packer is testimony to the importance Refriso places on technological innovation and the operative versatility of its systems.

## ▪ THE WORD TO THE CUSTOMER - Interview with Edson Silveira Mello, Production Manager, Refriso Bebidas



*What is the key to Refriso Bebidas' success in Brazil?*

“Undoubtedly our ongoing commitment to improving the quality of the products we offer. In order to meet the expectations of end consumers in the best possible way, our company has always been very attentive to changes in market trends and demands. Only from close analysis of what occurs during the purchasing decisions of consumers can we understand what the market expects from us today and in the future.”

*What characteristics must a supplier have to meet the*

*quality standards of your company?*

“As regards the partnership with our suppliers, Refriso's principal requirement relates to the service offered in terms of after-sales technical support and the availability of spare parts. »From all our suppliers, we require innovative machinery, equipped with latest generation technology and suitable technical support. We cannot afford for a low quality service to compromise the efficiency of our production system and jeopardise the quality level of our products.”

*What are the factors that led Refriso Bebidas to invest in purchasing a Smiform SR 10 stretch-blow moulder?*

“We were already customers of SMIPACK, one of SMI's subsidiary companies, and so we had come to know of the credibility and reliability of this major Italian group specialising in packaging machinery. SMI represents a viable alternative to other suppliers in the sector operating in Brazil, since it offers highly innovative machinery and systems with one of the best quality/price ratios on the market. We are confident that this partnership, which was strengthened by our purchasing the Smiform SR10 stretch-blow moulder and the Smiflexi LSK 35F shrinkwrapper, is just the beginning of a long and fruitful collaboration between Refriso and SMI.”

*How important is innovation for your company?*

“Innovation forms part of Refriso's “mission” and we are constantly searching for the best available technology at competitive prices. The benefits we derive from applying this strategy are passed on to our customers, who can easily locate high-end products on the market with an excellent quality/price ratio.”

- Guarana-based soft drinks amid tales of myths and legends

The history of guarana is extremely ancient. For many centuries, this evergreen climbing plant, which can reach a height of fifteen metres, was considered sacred by Amazonian Indian tribes. Because of its "strange" fruit, without which the plant would have gone unnoticed, it has always been at the centre of legends, myths and tales. In ancient times, one of these legends had, as its main star, Cereaporanga, a girl with a pleasing appearance and soul, protected by the goddess of beauty and life. It is said that one day, Cereaporanga fell in love with a brave warrior from an enemy tribe. The two lovers, who would never have been able to overcome the hatred that had existed for years between the two rival tribes, decided to run away together to live a happy life. During their escape, Cereaporanga came across a wounded anaconda snake and, despite the danger, her sweet heart led her to stop and help the animal. However, as a result of this "stop-off", the warriors from her tribe were able to catch up with the two fugitives. Certain that her lover would be captured and killed, Cereaporanga made a love and death pact with him, asking the big snake to squeeze them together in their final embrace. The Amazonian Indians of her tribe, seeing the two lovers entwined in their final gesture of love, despaired at the impending death of their protégée and asked for help from the goddess of beauty and life so that at least the spirit of the woman would not abandon them. The goddess, moved by Cereaporanga's gesture, made a plant grow from her eyes, the "guarana", whose fruits, when opening, resemble two shining black eyes, just like those of the beautiful maiden.



*How important for Refriso is SMI's direct presence in Brazil through its SMI do Brasil branch?*

"SMI's direct presence in our country was one of the key factors in the decision-making process that led to us choosing this supplier. For our organisation, just like any other industrial entity that uses machinery originating from another continent, it is essential for us to be able to rely upon the permanent local presence of the supplier. The fact that we are able to depend upon, at any time, technical support which is "close to home" is vitally important in being able to maintain a high level of efficiency and system use, especially in the event that we require spare parts urgently. From this point of view, the presence of SMI do Brasil is a source of confidence and peace of mind in the conduct of our everyday work."

# PepsiCo Iberica.



WATER & CSD SECTOR  
**Compañía de Bebidas S.A**  
Gruppo PepsiCo.  
Echavarri Viña, Spain  
» shrinkwrapper  
SMIFLEXI SK1202HS P 

■ The CSD (non-alcoholic drinks) sector was the first to industrialise the operations of bottling and packing, adopting increasingly innovative processes for managing the production plant, distribution system and packaging techniques.

The correct choice of packaging, in particular, is fundamentally important to the success of a beverage product, since all companies in the sector use a great variety of containers (glass bottles, PETs, metal cans, etc.) which are packaged in various types of packaging, among them shrinkwrap packets, cardboard

cases, cluster packs, etc.

In addition, consumer preferences and expectations are constantly evolving, requiring soft drinks manufacturers to set up extremely flexible bottling lines that can be quickly adapted to market trends.

This requirement led "Compañía de Bebidas PepsiCo" to install in its own manufacturing plants a new Smiflexi SK 1202 HS P shrinkwrapper, designed for packing cans at high speed.

# PepsiCo Group

aims for high speed and flexibility

■ Every day, across the world, hundreds of millions of consumers purchase their preferred choice of carbonated soft drink. The enormous success of this type of beverage has significantly increased the responsibilities of production companies which must find a balance between consumer requirements for healthy, wholesome products and internal requirements in terms of marketing strategies, cost containment, expanding their share of the market, etc. The Spanish company "Compañía de Bebidas PepsiCo" recently purchased a new Smiflexi shrinkwrapper from the SK HS series, to strengthen, with cutting-edge machinery, its secondary packaging line for soft drinks in 33cl cans. This was a significant investment which led to the installation of a new-generation automatic line



*Above: Compañía de Bebidas' technical staff, on a visit to SMI, meets personnel from the commercial and after-sales support departments.*

for high speed operations; the system allows for the packaging (both in single and double lanes) of metal cans in shrink film packs (with or without pads) in a large number of different configurations: 2x2, 3x2, 4x2, 4x3, 6x3, 6x4, 7x4, 7x5 and 8x4.

It is a cutting-edge choice of technology which satisfies the requirement for an increase in production due to growing market demand and provides high flexibility in terms of final packaging. It is a crucial investment for Compañía de Bebidas PepsiCo, which will allow

this Spanish company to maintain its very high product quality, fully respecting the environment and maintaining its position as market leader.



# Packaging:

## an important marketing strategy



■ Operative flexibility in its own bottling lines is a key factor for the Bebidas PepsiCo company. In fact, being able to use a single packer to package a wide range of products in many different pack configurations is undoubtedly an advantageous choice from a financial point of view. The new SK 1200 HS P packer by Smiflexi also allows for the production capacity of the line to be increased up to 120,000 cph. The whole manufacturing cycle is completely automatic and designed to keep format changeover times to a minimum. The Spanish company strongly believes in

developing its own business and this is why it makes continuous investments in technologically-advanced machinery. During this process of innovation and growth, Bebidas PepsiCo has relied upon the professionalism of SMI, with which it has collaborated since as long ago as 1998, the year in which the first packer by this Italian OEM was installed. In order to respond promptly to requests from its customers for more flexible and versatile machinery, SMI makes continuous investments in the research and development of innovative projects, such as the new

### ■ PepsiCo Iberica

PepsiCo Incorporated is a multinational company which operates in the field of production, marketing and sales of a wide range of food and beverage products. The company was established in 1898 with the name "Pepsi Cola Company" becoming PepsiCo in 1965 when it merged with Frito-Lay. PepsiCo purchased Tropicana in 1998 and Quaker-Oats in 2001. In addition to the Pepsi-Cola brand, the American company also owns Gatorade, Frito-Lay, SoBe, Naked, 7Up and Tropicana and has a presence in over 200 countries across the world. In 2009, the multinational PepsiCo had a turnover of 43.3 billion USD, employing 285,000 people. PepsiCo Iberica is the division of PepsiCo which operates in Spain and Portugal. It is one of the main commercial divisions of the US company and has two main headquarters (Madrid and Vitoria), four production plants in the Iberian peninsula and a workforce of over 3,500 employees.





added modules, the length of the magazines to allow for greater autonomy. An extremely innovative element of the Smiflexi packers of the SK HS series is represented by the new shrinking tunnel for cans, equipped with appropriate devices for side shrinking the packs. The flow of warm air is, in fact, also distributed to the sides of the packs in transit in the tunnel; this allows for the quality of side shrinking to be improved, obtaining, at the end of the process, superior quality packages from an aesthetic point of view.

“SK HS (High Speed)” series of Smiflexi shrinkwrappers that are able to package different sized cans in many different configurations at the maximum speed of 450 packs per minute (depending on the collation and size of the containers being packaged). The innovative technology of the new SK 1200/1202 HS, together with the fluid and fully automatic packaging system, which is typical of the SK range, guarantees SMI customers very high performance in terms of the reliability of the process, the quality of the final package, lowering operating costs and energy saving. In the machine feed area, the pushes of the accumulating products are optimally managed thanks to a conveyor made up of two modules each measuring 2

metres, each of which is fitted with its own motor. The Smiflexi SK 1200/1202 HS shrinkwrappers are fitted with an automatic system for changing formats which minimises manual adjustments, notably easing the work of the machine operator. The design of the SK HS models is ergonomic and functional and allows the operator easily to undertake all activities connected to the use and maintenance of the system, in full compliance with the highest safety standards. For example, the “pit-type cardboard blank magazine” was devised to ease loading operations, make feeding the machine with cardboard blanks more linear and fluid (less pushes), carry out automatic loading by robot (optional) and increase, by



# Pepsi

## and environmental sustainability



- Reducing energy consumption and, consequently, pollution connected to it, should be a moral imperative for all companies, especially the largest ones. PepsiCo has been committed for some years now to managing its resources more appropriately. For example, two years after the launch of the "Path to zero" project, which aimed at reducing water and energy consumption and at

### ■ European Green Capital Award



"European Green Capital" is a European Commission initiative which every year recognises a city within the EU which is at the cutting-edge in terms of solutions for environmentally-friendly urban living. The jury tasked with awarding the title uses 11 environmental indicators to assess the ability of the candidate cities to achieve high levels of environmental protection, their commitment in following ever more ambitious objectives in terms of sustainable development and the possibility of them acting as a model for other European cities. Stockholm and Hamburg were the first cities to win the title; Stockholm in 2010 and Hamburg in 2011.



## ■ Vitoria-Gasteiz is the “European Green Capital” for 2012

Vitoria-Gasteiz, unofficial capital of the autonomous community of the Basque Country and capital of the province of Álava, has been declared the winner of the “European Green Capital” award for 2012. The award, established by the European Commission, encourages cities to improve their quality of life, taking systematic account of the environment during town planning.

The award is a showcase for commitment and innovation which will allow for growth and progression in the future, as the “green” reworking of cities encourages sustainable development on a global level. The award was earned by the fact that Vitoria “has made great progress in greening a traditional urban environment.

The “Green Belt”, a semi-natural green area partially reclaimed from degraded areas, surrounds the centre, ensuring that its entire population of almost a quarter of a million people lives within 300 metres of



an open green space.

The local authorities have made far-reaching choices to sustain and increase biodiversity and ecosystem services.

Flora and fauna are monitored and habitat fragmentation is reduced wherever possible.

The city is successfully coping with water scarcity and has steadily decreased its water consumption over the last decade; this has been possible thanks to numerous investments to improve water supply, reduce losses and work towards sustainable consumption”.

decreasing waste linked to manufacturing processes, the famous drinks brand has decided to publicise the results it has achieved in terms of sustainability.

As well as the ambition to become “fossil fuel free” by 2023, the American company is primarily committed to reducing packaging waste, replacing a large amount of raw materials it uses with sustainable and biodegradable products.

Between 2008 and today, there has also been a drop in energy consumption, which followed a decrease in the amount of waste taken to landfill and a decrease in water usage.

Health and sustainability are in fact part of the Pepsi Group’s DNA and it attributes great importance to technological



## ▪ About Vitoria-Gasteiz

The city was founded in 1181 near the village of Gasteiz, with the name Nueva Vitoria, by the King of Navarre, Sancho VI the Wise. Soon after its foundation, the town took on its official Castilian name of Vitoria-Gasteiz. When, in 1978, Basque names were also made official, the name remained the same in both languages. The city is divided into two parts: the mediaeval town high on the hill and the modern town at the bottom. The latter is in continuous development due to the recent industrialisation of the area, based essentially on the establishment of small to medium sized enterprises and on the presence of some multinational companies. Vitoria's strategic position, located on the shortest link road between Castiglia and Northern Europe, has made this city a very active commercial centre since ancient times. The development of its arts and crafts and its industry experienced strong growth especially during the 19th and 20th centuries. The city is characterised by a well-kept and preserved historic centre, deemed as one of the best in the north of the Iberian Peninsula and, for this reason, in 1987 it was declared of national interest.



innovations as valuable tools for reducing the use of energy, water and packaging materials. Sustainable companies can

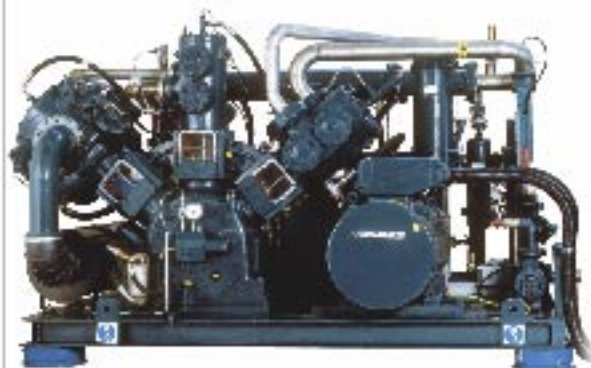
thereby cut costs, lead innovation, reduce risks, motivate employees, assist retail customers and increase consumer loyalty. At Echevarri Vina, Vitoria, this principle takes on an even greater importance as particular attention is paid by companies and communities to environmental issues, which are seen as key elements for improving the quality of life. This commitment was recently recognised by the European Commission, which declared Vitoria-Gasteiz the "European Green Capital".



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# Piacentina.

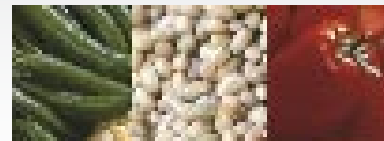


FOOD SECTOR  
**Piacentina Srl**  
 Polo di Podenzano (PC), Italy  
 >> shrinkwrapper  
 SMIFLEXI SK 600 T  
 >> multi-packer  
 SMIFLEXI MP 300  
 >> conveyors



## ▪ The advantages of integrated logistics

"Integrated logistics" is playing an increasingly important role in the food processing industry, since it guarantees an extremely flexible approach. All phases of the production process, starting with the supply of raw materials up to consumption of the product by individual purchasers are carefully planned, organised and controlled.



Integrated logistics is the key to success for the company Piacentina Srl, which has optimised all the steps and phases from one operator to the next within its production line.

# From storage to transportation...

## Piacentina: a leader in integrated logistics

■ Piacentina Srl, based in San Polo di Podenzano (Piacenza), was established in 2003 from the merger of three entities: the San Martino Scrl cooperatives, the Cores Consortium and private investor Cristina Dodici. The company, in just eight years of business, has achieved a leadership position in the "co-packing" sector of canned foods. In the meantime, its workforce has grown from two employees at its inception to its current 43 internal workers and 20 external workers. Piacentina works in the field of agribusiness logistics based in Cortemaggiore and, since the start of its operations, it has managed to offer customers integrated management solutions for the logistics cycle, starting from storing the semi-processed products to transportation of the finished packages, passing through all the intermediary stages of packaging, picking, standardisation and order preparation. The company has grown considerably in recent years and in 2004 began the construction of a new 14,000m<sup>2</sup> plant



with unique features. Again, with a view to offering the client a "turnkey" service, the Alseno plant has also been expanded for managing storage and order preparation.



# Customer Satisfaction as a key priority



Careful consideration of the requirements of the various brackets of its clientele has led the company Piacentina to establish a truly innovative plant which brings together, in one single location, the management of three usually separate activities: storage of the "raw", that is, unlabelled product; secondary packaging; and the preparation and shipment of orders.

To implement this project, Piacentina srl has purchased a new logistics site in the town of S. Polo di Podenzano, with an overall surface area of 70,000m<sup>2</sup> (35,000m<sup>2</sup> of which is indoors), warehouses dedicated to processing canned foods and a packaging department made up of four production lines.

The company is as an ideal partner for food manufacturers intending to outsource the secondary packaging stage of their business, providing its customers with a customised and logistically optimised service, thanks to the proximity of the Piacentina plants to the main motorway network.

Operationally, the company's plants are able to cover the entire logistics cycles linked to the stages that follow the primary packing stage: IT management of flows; storage; packaging; movement of goods; transportation and delivery to the end user.

Piacentina's production activity stands out for the great variety of products it handles: not just the different brands (Cirio,



## ■ “NEW TS” Tray Stacker

Valfrutta, De Rica, to name just a few) or the different products (peas, sweetcorn, beans, etc.), but above all the different types of containers (glass jars, cans, etc.) which are packaged in many different pack configurations: packets in film only, tray + film, flat pad + film, stacked trays, cardboard blanks with cardboard sleeve. Therefore, the main characteristic of the manufacturing systems is

This is a device which stacks plastic, metal or glass containers both clustered in cardboard trays or pads or loose (only for fit-in type cans) on two or more layers, one above the other, with any subsequent packaging in shrink film.

The Smiflexi NEW TS can be installed on the SK series shrinkwrappers, on WP wrap around casepackers and on the CM series combined machines.

The system is made up of an electronic stacking device operating in continuous motion, with outputs of up to 60 packs per minute depending on the machine model with which it is combined and the type of container being packaged.

Pack formats can vary according to the container shape and size, although the most popular configurations are 4x3 and 6x4.





flexibility, guaranteed by the presence of machines with high technological content such as the Smiflexi SK 600T shrinkwrapper, equipped with tray stacker, and the Smiflexi MP 300 sleeve packer.

The initial machine packs steel cans, cluster packs and various kinds of jars, with a capacity from 150 to 1,000g, in over 50 different configurations. The 4x3 and 3x4 packs are created also on two layers, one upon the other, thanks to the "NEW TS" device.



## ▪ The food processing sector in Italy

The food processing sector in Italy is characterised by the growing attention paid by consumers to product characteristics and production processes, which translates into a strong requirement for "transparency" to ensure the quality and wholesomeness of industrially packaged food and drink. Such a well-developed market requires companies in the "food & beverage" sector to make continuous organisational changes both in relation to production areas and to sales and support activities such as supplying, marketing, packaging, etc.

The company Piacentina Srl operates within this context. It is one of the major Italian companies which are active in the packaging of canned foods for third parties and it has made innovation one of the cornerstones of its "mission". Within the field of investment in new technologies, Piacentina has entrusted to SMI the engineering study of four lines of secondary packaging, within which the following have been installed: 6 Smiflexi packers: an SK 600/T shrinkwrapper equipped with a tray stacker; an SK 800/F shrinkwrapper for shrinkwrapping jars of various sizes in the 3x1 format at a speed of around 200 ppm; a 45 ppm shrinkwrapper; a TF 450 trayformer; two MP series cardboard sleeve packers and all the conveyors which move the loose containers and finished packs.

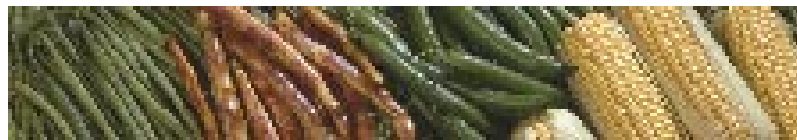
Maximum flexibility is also guaranteed by the Smiflexi MP 300 packer, which creates the packaging in cardboard sleeves.

The Smiflexi packers of the MP series can pack bottles, cans, cartons and plastic, metal and glass jars in various types of pack: multiple layers; with the bottle neck inside or outside the packaging; with built-in handles; with strengthening side flaps.

The Smiflexi MP 300 packer installed in the Piacentina plants is able to meet production requirements up to 30,000 bottles per hour and is dedicated to packaging of steel cans in 1x2, 1x3, 2x2 and 2x3 formats in Over The Top (OTT) formations".

## ■ ...Focus on canned foods

Canned foods are made up of all varieties of vegetable which are preserved so that they can be consumed even out of season. In ancient times, housewives would prepare the foods at home and would then preserve them using methods in place at that time so that they could be eaten during the seasons when fresh products were not available. With the advent of the food industry, from the mid-nineteenth century, canned food preparation switched from kitchens to factories. Tomatoes were the first vegetables to be industrially treated for producing purees, peeled tomatoes and tomato concentrates. Attention then passed to fruit preserves (jams) and then to all types of foodstuffs, preserved in oil or in brine. Today, canned foods are among the most widespread food products and are expected to become even more so by virtue of the strong demand for long-life foodstuffs from countries in the developing world.



## ▪ THE WORD TO THE CUSTOMER - Interview with Cristina Dodici, Managing Director of Piacentina Srl.



*Piacentina is a leader in the co-packing sector for canned foods. How important is it for a company operating in integrated logistics to have flexible and technologically innovative machinery?*

“Our company has always focused upon guaranteeing a high quality service, without losing sight of the financial aspect. For this reason, Piacentina has made great investments in technological innovation, continuously searching

*What are the main trends that are emerging in the food market?*

“Data obtained from recent trade shows, such as the latest edition of MARCA held in Bologna on 19th and 20th January 2011, has confirmed that there has been sustained growth of “private labels” also in 2010, with an increase of 6.5% compared to the previous year.

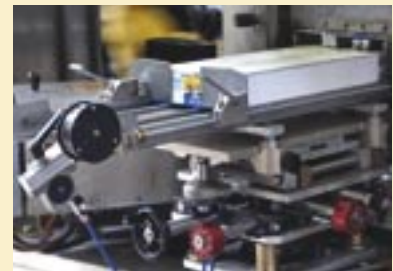
It is therefore clear that the market is rewarding an offer of convenience which

is meeting the approval of purchasers who have less disposable income.

Despite this, a very important fact is emerging: the commercial brands with higher trends of growth were the premium brands, which recorded an increase of around 33%.

It seems clear that the consumer has found a balance point: in future they will perhaps consume less, but better quality, trying to locate, as much as possible, a quality product.”





for the best solutions the market has to offer; this is in order to guarantee excellent quality standards, without losing sight of a competitive and extremely interesting commercial target.”

*What characteristics must a supplier have to meet Piacentina's quality standards?*

“Suppliers are not allowed in Piacentina but only and exclusively commercial partners!!

We require maximum dedication and professionalism from our collaborators, and we can confirm with concrete certainty that, from a technological point of view, this is what we have found in our commercial partners up to now.”



*Spurred on by the overwhelming development it has achieved in just eight years of*

*business, Piacentina Srl continues to invest with the aim of completely satisfying the customer. What do you expect from your partners in the packaging sector?*

“Planting seeds today means reaping abundant harvests in the near future. We ask our partners to work with care and dedication for a fruitful harvest.”



# Safi Water




WATER & CSD SECTOR  
**Safi Water Co.**  
 Safi National Company  
 Siwa, Egypt  
 >> stretch-blow moulder  
 SMIFORM SR 4  
 >> conveyors



## Water from the magical Egyptian desert

At the western end of the Egyptian desert, at the border with Libya, around 300 km south-west of Marsa Matruh, the Siwa Oasis offers its visitors an almost unique experience. It is a beautiful tourist destination, able to charm anyone, offering unique emotions thanks to the magic of the desert, especially when it is revived by the present of water sources which create green oases dotted around the great expanses of sand and rock.

The presence of water in the oasis encourages agricultural activities, the related food processing businesses and a small number of factories specialising in the production of mineral water. Among these, the "National Company for Producing and Bottling natural water & olive oils" stands out. Owned by the Egyptian army and controlled by the NSPO (National Service Products Organization), it produces and markets SAFI mineral water. The partnership with SMI was fundamentally important for the engineering study and installation of a new 6,000 bph PET line, which includes the rotary stretch-blow moulder for creating PET bottles, the labeller, case packer, systems for moving bottles and packages and various auxiliary equipment which completes the line.

# Safi Mineral Water

...natural par excellence



■ Safi natural mineral water is known throughout Egypt for its high quality and many beneficial properties. Thanks to modern and sophisticated systems, water is extracted from a spring in the Siwa Oasis at a depth of 1,000 metres, from which it reaches the surface in a pure and uncontaminated state. As evidence of these characteristics, the National Company for Producing and Bottling natural water & olive oils obtained the ISO 9001: 2008 certification for its quality management system. In addition, production takes place under the direct supervision of the Ministry for Health and in accordance with international quality

standards. Safi water is particularly recommended for diets that are lacking in sodium and is free from iron and manganese. Its high fluorine content helps to protect the teeth. In all stages of production, the Egyptian company uses fully automated machinery, to which, in response to growing market demand, a new bottling line has recently been added, composed of technologically advanced machinery. The engineering study of the line for the new 6,000 bottles per hour system was entrusted to SMI, by virtue of its specialisation in the design of integrated systems for bottling and packaging beverages and foods in plastic (PET, PEHD, PP) and glass containers and metal cans. The SMI project managers looked very closely into the production requirements of the National Co. for Producing and Bottling water & oils and, following a preliminary study, several inspection visits to the Sawi Oasis





minimum, which allows for the rapid switch from one type of production to another. An Smiform SR 4 rotary stretch-blow moulder has been placed at the "head" of the bottling line, which is capable of producing up to 7,200 bottles per hour. The design and creation of the new PET containers of 0.25 / 0.66 / 1.5 L, created by the Smiform designers, took account of the functional, economical and aesthetical requirements of the customer. The "design" of the new Safi water PET bottles is actually inspired by the Egyptian company's

and careful evaluation of all logistical aspects, they drew up a technical solution which was perfectly in line with the company's requirements, both in terms of production and finance. In order to guarantee maximum operating efficiency of the line, SMI also presented the customer with an accurate analysis of the cost dynamics (TCO - Total Cost of Operation), a 3D graphical simulation of the new system and a detailed study of the interactions between the different machines which co-exist on the line. All the Smiline conveyors were designed to respond appropriately to requests for fluidity and flexibility put forward by the Egyptian company and created using innovative technical solutions and

high quality materials. The SMI systems allow, among other things, for optimal management of product flows, thanks to a careful study of the dynamics of accumulation, distribution and movement of the loose containers and packaged products. The modular structure of the Smiline conveyors easily adapts to various types of bottles and product flows, with format changeover times reduced to a



- Economic development in the Siwa oasis

The fertile lands of the oasis have enabled the development of agricultural production based mainly on olives, date palms and alfalfa which are flanked by small crops of other kinds of vegetables and fruit, mainly intended for local use. As well as its agricultural activities and food processing (dates and olives) companies, Siwa is also a prestigious industrial centre. Tourism is the second most important economic sector in the area, attracting around 10,000 visitors per year (of which 6,000 are foreigners). The varied landscape and the relative abundance of water in the area have contributed to creating different types of habitat, allowing for the development of many different animal and plant species. This variety and scenic beauty is very attractive to



tourists, who in one single trip can enjoy many different experiences: the sandy area of the Great Sand Sea; the plains and plateaus where the scarce vegetation relies upon the scant winter rains; the cliffs and the "wadi", that is, the crests and cliffs at the edges of depressions; the green oases, where ground water rises to the surface and creates a fascinating contrast to the surrounding desert.

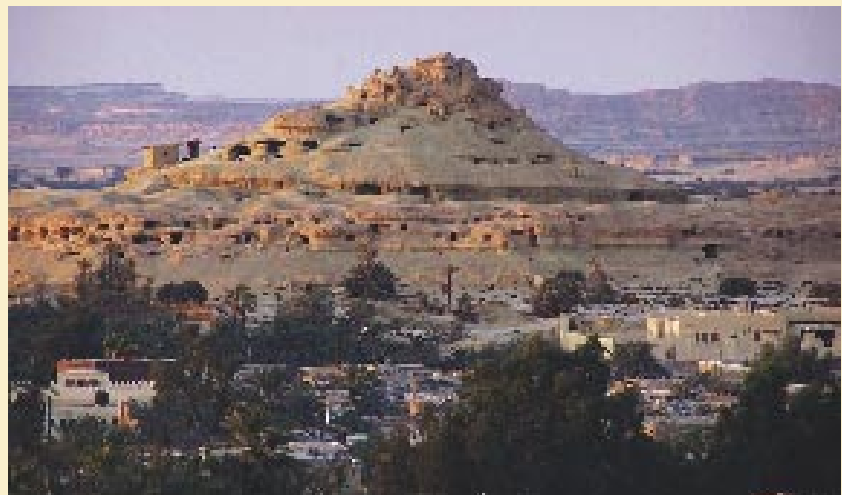


image and its logo, which includes the symbols for the sun, water and palm trees. In addition to their "design", the "appeal" of the new PET containers results from the accuracy and precision with which Smiform has created the moulds used to produce them. SMI actually has a large workshop dedicated to creating the moulds in special aluminium alloy and mechanical components, where 12 connected CNC work centres produce up to 15,000 moulds per year using FMS.



# Siwa oasis

a mirage in the middle of the desert.



was carts pulled by donkeys. The new asphalt road which connects Siwa to the city of Marsa Matruh, to the North-East, brought with it big changes, transforming the oasis into a tourist destination of great acclaim. The ruins of Shali, the ancient city of mud bricks, overlook the main square of modern Siwa, filled with luxury hotels and famous restaurants. In 1926 an exceptional barrage of rainfall, which continued uninterrupted for three days, caused substantial

■ It springs up out of nowhere with its palms and trees which shimmer like a mirage in the arid desert: this is the Siwa Oasis, a patch of lush vegetation rich with orchards which extends, at 50 km from the border with Libya, between the Qattara Depression and the Egyptian Sand Sea. In the oasis, located on the ancient trade route for dates which terminates at Memphis, there are over 300 freshwater springs which water thousands of date palms and large olive plantations. Between Siwa and the capital Cairo, nothingness reigns, or

rather 550km of sand. Famous in ancient times for the presence of the Temple of the Oracle of the God Amun, consulted by the Macedonian King, Alexander the Great, the oasis combines, in a charming way, peace, beauty and inaccessibility. During the course of its long history, it has remained largely isolated from events which took place on the banks of the Nile and has developed independently from the rest of Egypt. Until the 1980s, the most common means of transport





damage to the city. The highly concentrated salt content in the sands of the oasis dissolved due to the rain, damaging the old mud brick houses and forcing the population to leave the citadel. The many affected houses were completely abandoned after the flood, although it is still possible to explore the maze of alleyways in the old town. The oasis is located in a depression, whose depth reaches 60 metres below sea level, which stretches for around 82 km. The Siwa depression and its lakes, one of the most spectacular places in Egypt, are the remains of an ancient sea which later evaporated and which extended up to here.

## ▪ THE WORD TO THE CUSTOMER Interview with Gen. M. Moawad of Safi Bottling Water - NSPO (National Service Products Organization)

*SAFI - National Co. for Producing and Bottling is a significant business enterprise for Egypt. What is the key to success both at home and abroad?*

“The main aim of our company is to completely satisfy consumers.

In order to achieve this, we offer them high quality natural water which is recognised and valued across the country.

The demand for bottled water is growing strongly which has made it necessary for us to make major investments in new production technologies to increase our commercial capacity.

In recent years, Safi Bottling Water has significantly expanded its own plants, where, amongst other things, one of the largest water treatment units of the Middle East has been installed.

Demonstrating the fact that the quality of our product is our company's main aim, Safi natural water has obtained two important certifications:



**Left:** Gen. M. Moawad of Safi with Mohamed A. Elhamid of International Packaging System

the ISO 9001: 2008 and the ISO 22000:2005, both issued by certification bodies of undoubted prestige, Centerior and Saiglobal International.

We have also improved our commercial distribution network in order to make the uncontaminated water from the oasis available in any area of Egypt.”



**From the left:** El Hassane Taissat, SMI Sales Area Manager, Gen. M. Moawad of Safi, Mohamed A. Elhamid of International Packaging System and Fabio Chiesa, SMI Project Manager.

What were the main factors that led SAFI - National Co. for Producing and Bottling to invest in a new 6,000 bph bottling line?

“Primarily, the strong increase in demand for Safi water. In order to bring our production capacity in line with market demand, it was absolutely essential to purchase a new 6,000 bottles per hour PET line, which included a 4 cavity Smiform stretch-blow moulder for producing containers of 0.2/0.66/1.5 L. The new facility will allow Safi to increase sales in Egypt and also to satisfy

demand coming from abroad.”

What role must a supplier play during this process of company growth?

“During the process of growth of any company it is absolutely essential to have at your side an established and well-organised supplier, which guarantees that our company achieves maximum production efficiency in the quickest possible time.”

How important is technological innovation for SAFI? What do you expect from your partnership with SMI?

“Innovation is fundamentally important to our company. The results we obtain in our bottling line are closely linked to the use of the most up to date technologies available on the market.

Thanks to this, we are able to satisfy the demands of our individual consumers.

We expect a great deal from the new 6,000 bph PET line, both in terms of greater efficiency and in optimising production costs.

The technical solutions adopted by SMI for this project were designed with our requirements for rapid returns on investment and maximum energy saving in mind.”



## BOTTLING UNDER CONTROL



**TB1000-TP-FLY**

*Suitable to verify possible leakage due both to an incorrect closure tightness (caps or aluminium foil) and/or to holes or cracks on walls*

- Control of leaks (tiny holes in the cap or bottle)
- Control of minimum and maximum level
- machine stop signal in case of consecutive rejects
- management of separate ejection for bottles with defective seal and bottles with low level
- sealing level display for every bottle
- monitoring of filling and capping systems



**IE720\_2-VA**

*CAMERA LABELS INSPECTOR DIRECTLY ON CONVEYOR BELT suitable to verify the correct labelling and the 'dressing' of oriented bottles*


*Inspection of:*

- Correct positioning and presence of label
- Label conformity to the size in production
- Label orientation
- Label integrity (caps and seals)
- Filling level presence
- Cap presence
- Lot code reading
- Bar code reading
- Data matrix reading





# Acrilex.



GRAPHICAL ARTS SECTOR

**Acrilex**  
São Paulo, Brazil

- >> 2 packers  
SMIPACK FP6000CS
- >> 1 shrinkwrapper  
SMIPACK 3P802AR 23OR
- >> 3 shrinkwrappers  
SMIPACK 3P600AR 15OR

## ■ A world of colour

It is what every child would like to see! If it were up to children, there would be bright, shiny and vibrant, colours everywhere... Colours are therapeutic, liberating, natural energisers that stimulate the mind. There is always room for creativity, thanks to an apparently simple object like the pencil, with which, even when they are very tiny, children can give free rein to their imagination. The pencil is one of the leading products of the company Acrilex, which, in Brazil in over forty years of activity, has developed a wide range of items to suit any painting or drawing technique.



# Eco-Friendly

## and responsible creativity

■ Creativity is not harmful to health. Creative freedom must be able to express itself in every direction: at school, on canvas, on paper, on fabric, everywhere. But it must be safeguarded and free from hazards.

For this reason, Acrilex dedicates a large part of its research and development activities to creating products that are compliant with the most stringent safety and environmental protection regulations, carefully selecting the raw materials it uses and carrying out thorough tests on the products before they are marketed on a wider scale.

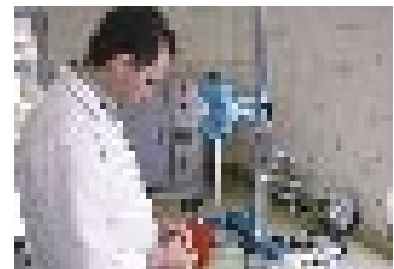
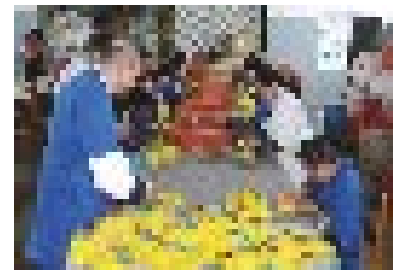
Demanding in the face of its suppliers, Acrilex favours production processes which ensure optimal management of natural resources. In addition, the company has a number of laboratories which deal with the quality of the packaging, processes and materials, while a recently opened microbiological laboratory conducts further checks to verify the absence of contamination.

Technological innovations form part of the dynamic nature of Acrilex and are essential for guaranteeing



the complete satisfaction of the company's customers. The partnership with SMIPACK has contributed much to achieving this objective, as SMIPACK also focuses on the technical innovation of its machines and on satisfying its customers. The SMIPACK packers are, in fact, able to guarantee maximum operative efficiency, extreme ease of use and excellent accessibility during maintenance operations. Thanks to the SMIPACK packers of the FP and BP series, Acrilex can manage its own production lines in an effective and versatile manner,

in complete safety and with costs reduced to a minimum.



# Smipack packers:

high quality at competitive prices



■ The  $\beta$ P800/802 AR 230R and  $\beta$ P802AR 280RS models are automated monoblock shrinkwrappers with sealing bars which stand out for their high versatility of use: bottles, cans, jars and many other containers can be packaged in various configurations in shrink film.

At the machine entrance, there can be 1, 2 or 3 rows of products and the 90° infeeding occurs thanks to an automatic left or right conveyor.

Pack formation is controlled by an automatic grouping system, while a motorised pusher, controlled by

inverter and encoder, conveys the products inside the shrinkwrapper machine for subsequent wrapping in film and shrinking.

The Flextron® control system, equipped with LCD alphanumeric control panel, is able to store up





facilitates the movement of the machine inside the production plant, thanks also to the double feet/wheels solution. Inside the Acrilex lines, automated angular packers are installed from the FP series for production of

up to 3,000 packs per hour; the FP models are extremely versatile and can package a wide range of different products in terms of shape, size and weight in single format or grouped into predetermined packages.

to 10 work programmes and ensures a simple and accurate control of all parameters and production phases, such as: temperature and seal time; opening of seal bar; speed and positioning of pusher; oven temperature; speed of oven belt; etc....

The shrink film oven belt, which moves at variable speeds controlled by the inverter, is equipped with fibre glass bars and a supplementary chain for improved movement of the heavy packs. SMIPACK's BP series is characterised by a very compact monoblock structure, which





All the models in this range can be provided with or without shrinking tunnel, and both polyolefin and polythene can be used in the shrink film packaging.

With the new SMIPACK FP6000 and FP8000CS packers it is also possible to use reels of film in single-fold polythene, open on either of the two sides.

Machine management and maintenance activities are very simple, thanks to the new control panel situated on the front which, being fitted with a greater number of lines compared to the previous version, improves the visibility of the information.

Even format changeover, changing the reel and replacing the inlet and outlet belts is easier and quicker compared to previous solutions.



All this translates into significant advantages for the user: with maintenance operations reduced to a minimum. In fact, the performance of the machine increases while management costs decrease.

Even the operations of checking and managing the FP6000 and FP8000CS packers are entrusted to the Flextron® advanced control system, which offers the possibility of memorising up to 20 different working cycles, controlling the opening of the seal bar, setting the seal time, adjusting the seal temperature both along the length and width of the seal bar, altering the speed of the conveyors, activating the conveyor closing system and generating different process statistics (instantaneous production, machine efficiency, detection of faulty packs, etc.).



▪ THE WORD TO THE CUSTOMER - Interview with Takaaki Kobashi, Chairman and Industrial Director of Acrilex



*Since 1964 to the present day, Acrilex has undergone an amazing development. What is the key to success both in Brazil and abroad?*

“We have achieved extraordinary growth by following an ethical and reliable commercial policy. Each one of our company activities is defined in terms of the expectations of the various market

sectors which we serve. Acrilex actually works both with traditional stationers and with wholesalers. The former stand out for the excellent personal service they offer, in that they perfectly recognise the requirements of every single consumer, while the latter aim at a clientele which prefers a more independent, practical and

easily accessible service. We have always focused upon offering our consumers a versatile and easy to use product range, which ensures excellent quality results and responds perfectly to their creative expectations. We also operate in a very “effervescent” market where consumers are continuously looking for new colours, new techniques and new “magical” effects for every single art form they develop. All this requires, from our part, constant technological innovation and continuous research into new products to be introduced to the market. Acrilex has also benefited from a positive expansion in exports, made possible by the development of products which comply with international quality





and safety standards.

All our products, above all those for schools, actually comply both with local regulations and with European and American regulations with regard to manufacturing products for children.”

*What characteristics must a supplier have to satisfy your company's quality standards?*

“They undoubtedly play a major role in the reliability of the product on offer, the punctuality in delivering the ordered goods and an efficient after-sales technical support service. The latter must be able to comply with our expectations, also with regard to providing an appropriate technical manual.”

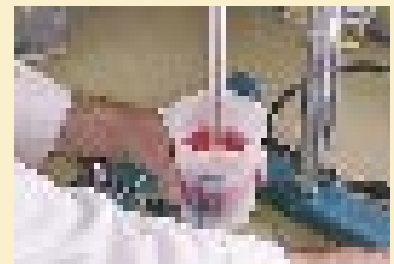
*What are the factors that led Acrilex to invest in purchasing the FP and BP series SMIPACK packers?*

“We needed to have machinery which perfectly suited our needs with regard to layout, which offered us excellent production performance, simplicity of use and excellent quality product packaging.

All these features were identified in SMIPACK and it was from there that the decision came to install the FP and BP series machines.”

*How important is the direct presence of SMIPACK in Brazil through the Smi do Brasil branch for you?*

“It is a fundamental element which definitely makes the difference! Thanks to the branch in Brazil we can actually rely upon direct technical support and on the supply of spare parts with quicker delivery times. This factor was the key element when we decided to install new packaging machines in our production lines.”



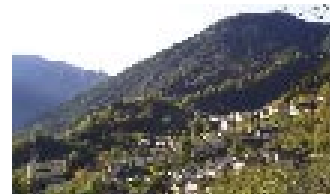


# Sacs.



■ Located in Mojo de' Calvi (Orobic Alps), 50 km north of Bergamo, amid rocky peaks, lush forests and clean air, is a plant at the cutting-edge of technology established from a collaboration between SMI and the local "Stella Alpina" spring. Both companies' "DNA" is made up of a strong commitment to innovation and respect for the environment, hence the idea to devise, also in collaboration with the companies SIAD and P.E., a new production line which would use more

advanced technological solutions to significantly lower the costs of production for every single bottle of still or sparkling water and would respect the surrounding environment, allowing maximum product traceability thanks to laser marking.



# SACS project:

the compact line which makes savings and respects the environment.

■ The new "SACS" ("Stella Alpina Cost Saving") line was devised, designed and created by SMI - over a surface area of just 800m<sup>2</sup> - to produce up to 14,400 bottles per hour in a more efficient and economical way compared to the pre-existing bottling plant at that spring.

The project "master plan" includes the following objectives:

» **up to a 30% reduction in primary packaging material**, that is, the plastic used to produce PET bottles.

SMI achieved this objective by designing two new "ultra-light" containers, one for 0.5L and the other for 1.5L, obtained by stretch-blow moulding preforms of 11g and 23g respectively, both with Alaska267 thread (previously, Stella Alpina used 15-16g preforms for 0.5L bottles and 30-31g preforms for 1.5L bottles). The particularly attractive design of the bottle was designed to allow for ergonomic handling of the container, improving its intrinsic properties in terms of solidity and manageability, encouraging its use even outside the house.

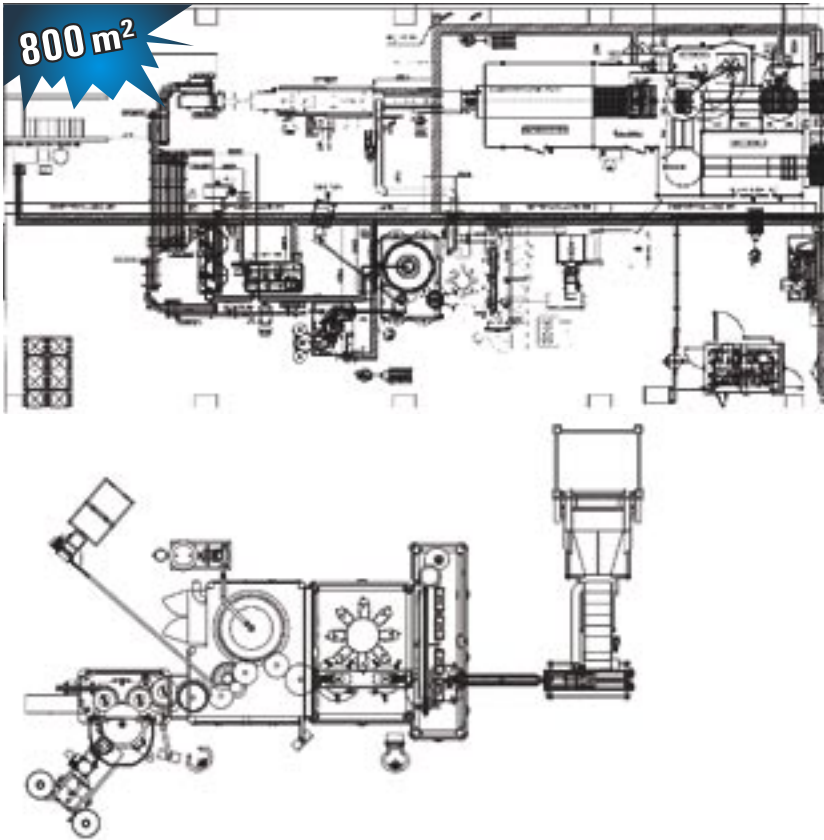
The SACS project includes the use of a new generation P.E. labeller based upon "Adhesleeve" technology which allows for pre-glued labels to be applied without having to use hot glue;



» **up to a 50% reduction in secondary packaging material**; SMI achieved this objective by equipping its own shrinkwrapper with a new knife with a motorised blade controlled by digital servo-drivers, which allows for the use of shrink film with a thickness less than 30 micron (as against the 50 - 60 micron previously



# SACS PROJECT



The secondary packaging unit, designed by SMI from scratch, is an innovative shrink film packaging system which includes thrust integration between the shrinkwrapper and the palletiser; this solution has allowed for the area occupied by the end of line machines to be contained and involves a drastic reduction in connecting conveyors between the shrinkwrapper and palletiser;

used by Stella Alpina) for the 3x2 format of 0.5L bottles;

» **up to a 20% reduction in the purchase, running and maintenance costs** of the machines on the bottling and packaging line. More specifically, SMI's designers focused upon creating a very compact system, made up essentially of just two blocks: the unit for primary packaging and another for secondary packaging. The former is made up of a system of stretch-blow moulding, filling / capping

and labelling, known as ECOBLOC® PLUS, which combines in a single machine the aforementioned functions and allows, therefore, for the complete cycle of primary packaging to be managed by a single system, from the preform to the filled, capped and labelled bottle. Also, in the ECOBLOC® PLUS system, bottle movement occurs through direct star-star transfer, allowing for significant savings in terms of initial investment, maintenance costs and energy consumption.





» **up to a 90% reduction in water** used for cleaning the plant, thanks to the fact that the “baseless” technology applied to the filler allows for the base of the machines to be “freed” from moving components and mechanical parts, where dirt and waste from the production process usually accumulates;

» **up to a 15% reduction in energy consumption** of the whole production line; this objective was achieved by SMI thanks to:

- SIAD “oil free” high pressure compressor integrated into the blow moulding system;
- ARS air recovery system, assembled as standard on

the blow moulder, which allows for up to a 40% reduction in consumption of high pressure compressed air;

- recovery of heat from the blow moulder and air compression systems, partly used for pre-heating the preforms and partly discharged to the shrinking oven in the end of line shrinkwrapper;
- use of lighter preforms (11g for 0.5L bottles and 23g for 1.5L bottles) and thinner shrink films (less than 30 micron) which require less heat during the stretch blow-moulding and shrinking processes and therefore allow for a significant reduction in the electrical energy required

- to heat the blow moulder and shrinkwrapper ovens;
- less wear on the components, thanks to the reduction in moving parts and the use of more resistant materials;
- use of high energy efficiency motors on the conveyors.

» **up to a 50% reduction in CO2 emissions**, thanks to a reduction in energy consumption throughout the whole plant deriving from the use of machines with high energy efficiency, the lightening of the primary and secondary packaging and the future use of "green" polymers.



## ▪ ECOBLOC® PLUS - The ideal solution for producing up to 36,000 bph.

Smiform's ECOBLOC® PLUS, created in collaboration with PE. Labellers, is a modular system which combines, in a single machine, the functions of stretch-blow moulding, filling/capping and labelling, intended for PET bottling plants for up to 36,000 bottles per hour.

The integration between a rotary blow moulder, an electronic filler/capping machine and an "adhesleeve" labeller allows for a significant reduction in the bulk of the system, thanks to the transfer of the bottles from one area to another directly, by synchronising the outlet and inlet stars on the various modules.

In addition, the integration in one single block of the shrinkwrapper - with handle applicators incorporated - and the palletiser system allows for the end of line machines to be significantly compacted and for the packaged packet conveyors to be removed.

Smiform's ECOBLOC® PLUS systems are suited for bottling still and sparkling soft drinks, oil and milk, in containers from 0.2 to 3 litres, whose traceability in the phases of production, distribution and consumption is guaranteed by a newly-designed laser marking system.



The machine integration, the reduction in moving parts, the system's centralised automation and the use of materials which are lighter than conventional materials allow for production efficiency to be improved, for purchasing, running and maintenance costs to be contained, and for savings to be made on packaging and energy consumption.

Smiform's ECOBLOC® systems stand out for their compactness and the absence of hot glue during the labelling phase ("Adhesleeve" technology by PE.), which ensures high levels of hygiene, ease of cleaning and maintenance of the various sections of the machine, thereby limiting the possibilities of contaminating the containers.



## ECOBLOC® PLUS integrated system

Reduce the distances between preform and label!

The integrated systems in the Smiform ECOBLOC® PLUS series bring together in a single machine the operations of stretch-blow moulding, filling, capping and labelling of PET containers and are the ideal solution for bottling lines of still and sparkling soft drinks, milk and edible oil up to 36,000 bph.

The ECOBLOC® PLUS systems stand out for their modular and compact structure and for the high technological content of the proposed solutions, which ensure high performance in terms of efficiency and operative flexibility, ease of running and maintenance, low energy consumption and maximum respect of the environment.

### ECOBLOC® PLUS SERIES:

the "green" solution which saves you space and energy



> stretch-blow moulding and filling machines > shrinkwrappers > wrap-around casepackers > conveyor systems > palletisers



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# High Speed.

■ Large companies in the “food & beverage” sector are forever focused upon concentrating production into a reduced number of plants equipped with very high speed systems; this allows for production costs to be contained and for optimal use of the machines. In order to meet the demand for new packaging solutions generated by this scenario, SMI has launched onto the market a new series of high speed shrinkwrappers, known as SK “HS - High Speed”, which

represent the very best that the industry of this sector has to offer in terms of efficiency, flexibility and reliability.

The Smiflexi SK “HS” series is made up of high performance automatic shrinkwrappers that are able to package different-sized metal cans in many different pack configurations, at a maximum speed of 450 packs per minute (depending upon the format and size of the product), working in three lanes.



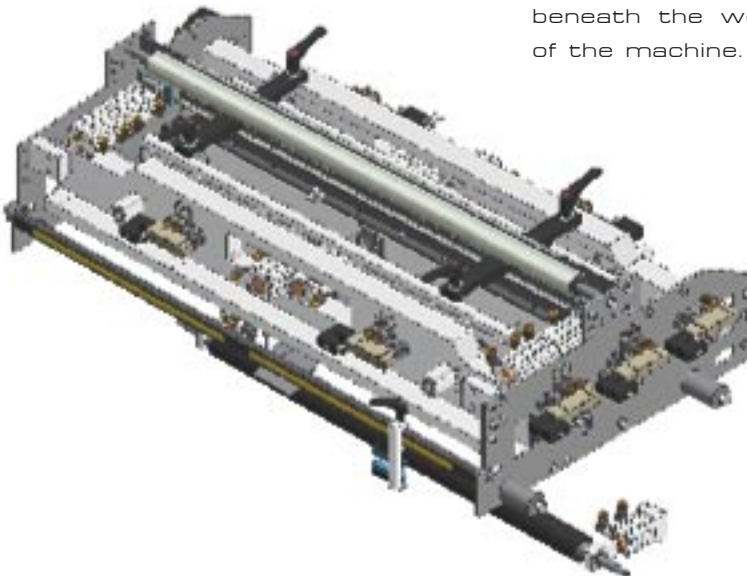
# Bi-adhesive Sealer:

a new automatic joining system for film reels

■ The new packers in the SK "HS" series include, as standard, an automatic format change system and an automatic joining system for film reels equipped with bi-adhesive tape, the latter can be used both with printed film or neutral film with mark reference. The automatic format change device significantly simplifies the work of the machine operator, while the new sealer system allows for the rapid splicing of the edges of the two



reels of shrink film installed beneath the work surface of the machine.



The splicing operation occurs without the need to stop the packaging process.

# SK SERIES - HIGH SPEED

since, when the film on one of the reels is about to run out, the machine slows down to allow the system automatically to "seal" the edge of the empty reel to that of a spare reel, upon one of which the operator has previously applied a strip of bi-adhesive tape.

All this is done in just a few seconds, after which the system can return to full production.

Compared to traditional hot sealer systems, this new device allows for energy consumption and maintenance interventions to be reduced, in that it is not necessary to maintain the temperature of the sealing rollers.



Precision in the splices of the film reels (printed or neutral with film mark) is increased, with positioning of +/- 10 mm from the film

mark reference.

The system also works seamlessly with "no-collant" film.

## ▪ Speed and precision at the highest levels

The design of the SK 1200 HS (single lane) and SK 1202 HS (double lane) packers is ergonomic and functional, and allows the operator easily to carry out all activities connected to use and maintenance of the machine. The high safety standards of the system are guaranteed by a series of innovative technical solutions, such as, for example, the "pit-type cardboard blanks magazine", whose structure is able to ease loading operations, make feeding cardboard

blanks into the machine more linear and fluid (less thrusts), allow loading to be carried out automatically by robot (optional) and, through added modules, increase the length of the magazines to allow for greater autonomy.

The thrusts generated by product accumulation in the machine feed area are optimally managed, thanks to a conveyor made up of two modules, each measuring two metres, each of which is fitted with its own motor.



# HST series: new shrinking tunnel for packs of cans

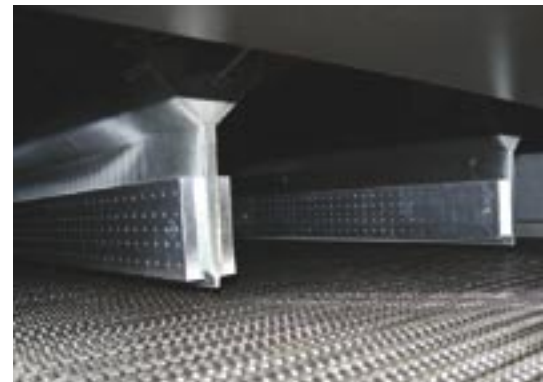
■ Another extremely important technical aspect of the new Smiflexi SK "HS" shrinkwrappers is the new thermo-shrinking tunnel for packaging metal cans.

Specially designed for this type of container, the new tunnel is fitted with a warm air distribution system which includes added air flows for the side shrinking of the packets in transit; in this way, the shrink film wrapping occurs in a more homogeneous and uniform way at all areas of the pack, allowing for the creation of flawless packages (no wrinkles and folds) even at high speeds.

The temperature inside the tunnel, controlled electronically, is maintained, during the entire working cycle, at the optimal levels established in the production programme, thanks to newly-devised technical solutions which dramatically reduce heat loss.

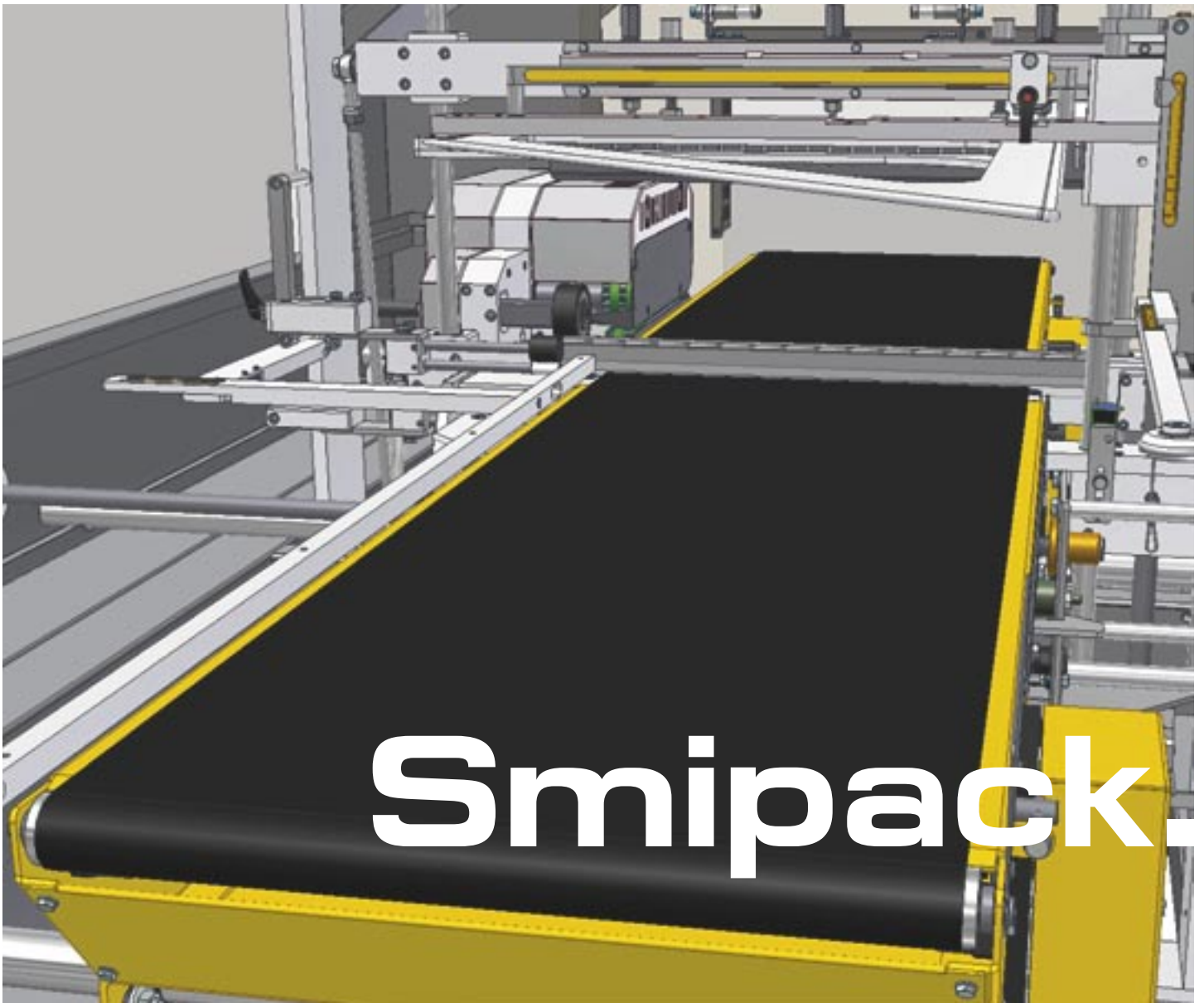
The amount of time each of the packs spends inside the tunnel is also regulated automatically by the machine control system, which keeps it constant for all processed formats.

If the speed of the shrinkwrapper must vary depending on the selected pack configuration, an appropriate device automatically compensates the difference of shrinkwrapper speed/oven



by adjusting the belt between the two modules; this allows for high quality shrinkwrapped packs to be obtained, regardless of the format.

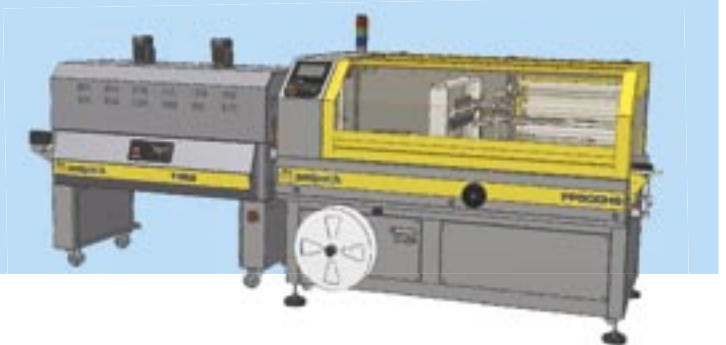
The thermo-shrinking tunnel for bundles of cans is available for packaging operations in single, double or triple lane variants.



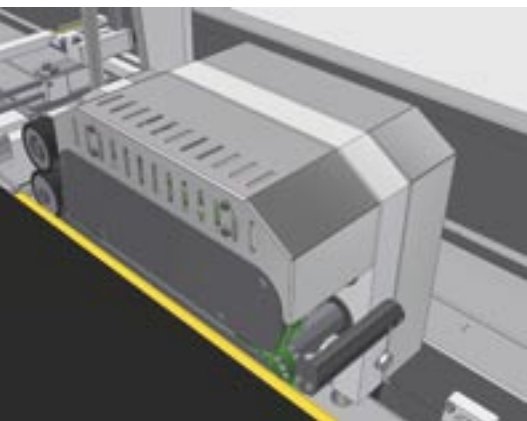
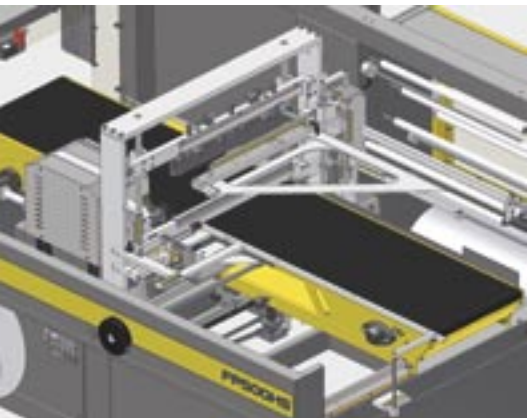
# Smipack

## ■ NEW SOLUTIONS FOR CONTINUOUS AUTOMATIC PACKAGING

- › Production capacity up to 100 ppm
- › Longitudinal continuous sealer
- › 500mm sealing bar
- › Maximum pack height: 200 mm
- › Unlimited pack length
- › Available in models FP500HS and FP500HSE

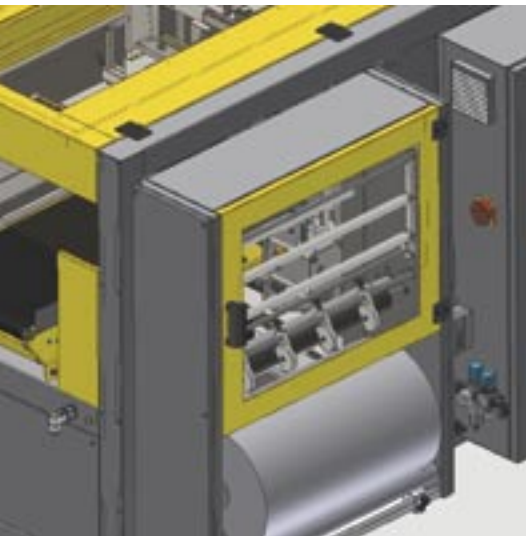


■ The constant commitment of SMIPACK's Research and Development Centre has materialised in the creation of the new continuous automatic packers, models FP500HS and FP500HSE. These are machines characterised by cutting-edge, high productivity, more ecologically sound technical solutions with reduced total cost of operation (TCO). Devised for packaging a wide range of products, these machines can use both polyolefin and polythene of



up to 30my in thickness. Compared to traditional automatic angular packers, represented by models FP6000, FP6000CS and FP8000CS - which use an "L" shaped sealer system - the new FP500HS and FP500HSE are characterised by the presence of a longitudinal continuous sealer. This device offers the great advantage of being able to process packs of an unlimited length and of having a transversal motorised sealing bar controlled by inverter and encoder, which allows packs that are up to 400 mm wide and 200mm high to pass through. Such advantages, combined with the faster speed of the belts, translate into a consistent increase in production speed compared to traditional angular packers. The new models also operate with less film off-cuts, allowing for a

reduction in packaging costs. As standard, the two new models include a motorised sealing centering system; in addition, SMIPACK packers are equipped with an innovative automatic film tightening system which stands out for its ease of use by the operator. SMIPACK exclusively manufactures packaging machines characterised by their modular design, operative flexibility and high operating efficiency, thanks to the complete process automation and electronic management; this ensures top of the range performance and packs of the highest aesthetical quality. Managing and controlling the FP500HS and FP500HSE packers is simple and intuitive. The FP500HS model is fitted with an x86 computer based on Intel Atom™ architecture with 7" full-colour touch screen



display, with the possibility of operating the machine by remote control via Ethernet: technology, the latter, which guarantees significant improvements in the performance, reliability and low running costs of the system, thanks to the fact that the drivers, controllers and In/Out modules can be connected to each other using normal network cables.

Using the graphic display with touch screen panel, it is possible to update/modify all the operating parameters of the machine and to monitor the packaging process.

The truly intuitive graphical interface, the

touch screen and the advanced diagnostic and technical support functions in real time make the FP500HS by SMIPACK easy to use even by less expert operators.

The FP500HSE model is equipped with a control panel with a display with 4 lines for 20 characters.

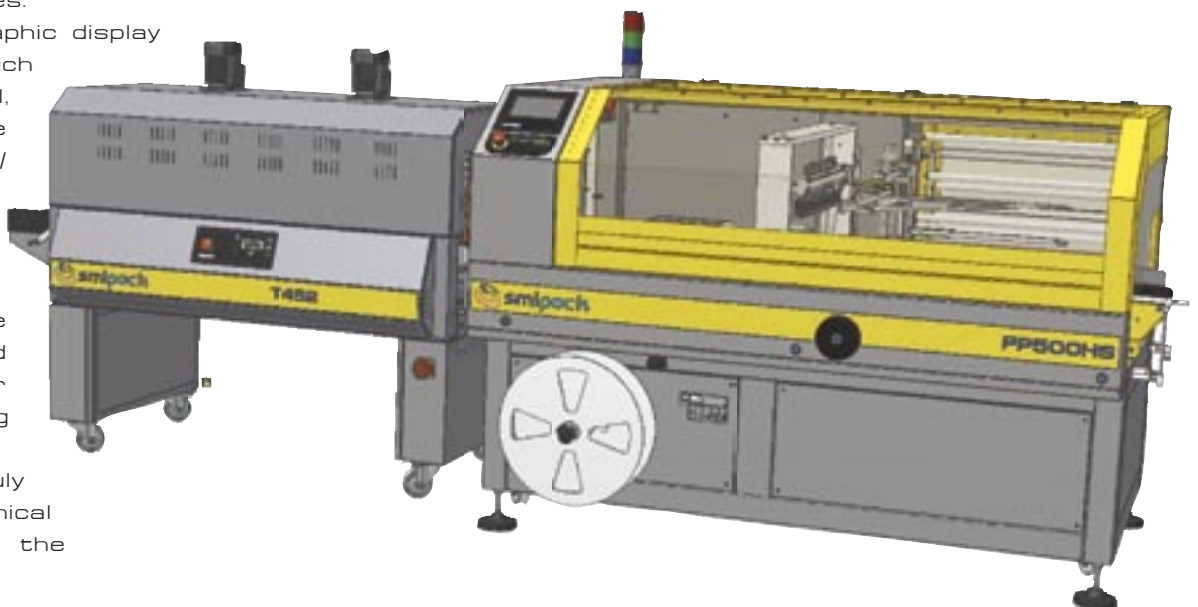
The FP 500HS and FP500HSE packers are latest generation machines, based upon FlixMod Smitec technology and they are created with the use of top quality components, such as FESTO pneumatics, SEW motors, SICK sensors, PHOENIX connections, etc.

The FlixMod system, developed by the Smitec Division, is a compact electronic system which can be highly personalised and is dedicated to process control; the configurability of the system is very high, in that a single CPU can



manage up to 45 functional modules and, though a field bus, even very complex control systems.

The control hardware of the FP500HS and FP500HSE packers is made up of new COSMOS 3000 servo-drivers in "inverter" configuration for asynchronous motors.



- The versatility of the BP802AR - Now available in the version with pad + film and film only.

The new series of monoblock semi-automatic and automatic shrinkwrappers with shrink film sealing bar has versatility as its main feature. The BetaPack series by SMIPACK is in fact particularly suited to the packaging, in various formats, of bottles, cans, cases, trays, jars, pots and many other products for various market sectors such as drinks, food, chemicals, wines, alcohol, cosmetics, detergents, wood, textiles, graphics, etc. With the BetaPack series, SMIPACK is able to respond to the most popular requests from customers and to guarantee an excellent price/quality ratio. The packaging market is a sector in continuous evolution, as it is very sensitive to the frequent changes in consumer purchasing choices. In order to meet the growing demand for more stable and resistant packaging, often equipped with a cardboard support at the base of the pack, SMIPACK has expanded its own range of BetaPack shrinkwrappers and has launched onto the market the new BP802ARV 280R- SP model for packaging packs in pad + film and in just film. The technological innovation that is the result of years of research and development has also been applied to this new line of shrinkwrappers, able to package both products with a petaloid

base and those with a flat base, with a minimum diameter of 40 mm. This machine, which reaches a maximum speed of 18 ppm (\*), thereby becomes the ideal solution for a large section of the packaging market and is available at a price that is among the most competitive in the sector. In the BP802ARV 280R- SP model, the corrugated cardboard pad is picked out from the cardboards magazine, which has a dimension that can be adjusted from 120x200 mm to 500x350 mm, through a vertical pneumatic cardboard picker. Thanks to a chained belt that is independent from the machine cycle, the pad is auto-centered and positioned correctly. The perfect synchronicity of the movements of the pushing unit, the separator and the connecting belt, guarantee the precise positioning

of the pad below the product as set by the packaging programme. To complete the range of packers in the BetaPack series, by the end of 2011 SMIPACK will also have introduced onto the market the BP802ARV 280R-P model (without sorter), specially developed for packaging different types of product, with a minimum diameter of 40 mm at a maximum speed of 18 ppm (\*) and the BP800ARV 230R-P model which is also dedicated to the packaging in pad + film or just film, of a variety of round, rectangular and oval products (both with petaloid and flat bases), with a diameter or minimum depth of 25mm, at the maximum speed of 12 ppm (\*).

(\*) depending upon the size and type of product being processed.



# Environment:

## Smi obtains the UNI EN ISO 14001:2004 certification



■ All of Smigroup's company strategies are put together while giving the utmost consideration to the "Quality and Environment" aspect, in the awareness that only an integrated vision of the organisation and the environment in which it operates will allow for the objective of sustainable growth to be achieved. This specific desire is defined and documented in the "Quality and Environment Policy" established at management level, which summarises the commitment that SMI has with regard to all elements

of the company's production process. As a clear and timely demonstration of this policy, SMI has implemented a QMS and an EMS - certified by major institutions - in accordance, respectively, with the UNI EN ISO 9001:2008 and 14001:2004 regulations. SMI's group companies have always excelled in their vocation for creating innovative solutions, which today, more than ever, aim unflinchingly at complete quality and at reducing consumption.

The packaging machines manufactured by SMI actually allow lighter packaging materials to be used compared to the past. This means, for example, that a smaller quantity of plastic is used in the production process of PET bottles and packaging in shrink film, with undoubted advantages for the environment and the "energy bill". In addition, the new integrated systems of blow moulding, filling and capping in the ECOBLOC® Smiform series are based on a very sophisticated filler technology which allows the bottles to be filled with pinpoint accuracy, thereby avoiding wasting precious resources. SMI has recently obtained certification for its own Environmental Management System from the French body AFNOR, which recognised its conformity with the UNI EN ISO 14001:2004 regulations.



■ **Harmony between ecology and company activity**

Smigroup aims to achieve sustainable development by creating close harmony between its business activities and respect for the environment. Taking the environment into consideration during all phases of the production process is essential for creating a harmonious co-existence between individuals, technology and nature and for offering a valid contribution to customers and to social

development. These objectives are pursued through the design of new products which minimise their environmental impact and through a series of activities which contribute to environmental protection. Technological innovations are the key to success and economic growth for Smigroup: another reason to monitor the impact that each new product has on the environment in order to create efficient, economical and, above all, ecological solutions.



■ **The AFAQ-AFNOR Group**

The AFAQ-AFNOR group is one of the most important certification bodies in the world. It has issued over 25,000 certifications in more than 60 countries and specialises in certifying the management systems, products and services of companies operating prevalently in the food processing sector. Consumers are growing increasingly attentive to food safety, obliging producers in the sector to use sophisticated systems for batch traceability during all stages of international trade. Therefore, for the food & beverage industry it is becoming increasingly important to guarantee to its customers the absolute

integrity and maximum quality of the products placed on the market. This is achieved by ensuring that the bottling and packaging lines comply with the strict safety standards set out by the ISO regulations. The certification issued by AFAQ-AFNOR is the irrefutable proof of the desire for transparency and quality that has always been behind SMI's activities.



# Training:

“Wisdom cannot be harmed; time does not remove it; nothing can diminish it” (Seneca)



stations for CAD design. The new multimedia classroom, opened on 5th February 2011 in the presence of the main institutional, business and educational authorities, was dedicated to Luigi Nava, founder of SMI, a tireless worker and prime educator, who was able to convey to his own children and to the company's employees the importance of values such as knowledge and progression.

■ The importance of training is an essential principle in the company "vision" of Smigroup. This is what ensures future development and the "progression of knowledge". It is from this premise that the idea of bringing together the worlds of school and work was born, which has materialised in some initiatives which the "ISIS David Maria Turolfo" Institute of Higher Education in Zogno has become involved in, along with SMI.

Among the most significant initiatives are the "Work-related Learning" projects, "Try our best" and the "Training course for mechatronic technicians"; the latter involves a series of classroom lessons held by SMI project managers. Sensitivity to social issues has also inspired the company's directors to support local schools by donating modern IT tools to training and educational laboratories, among them a multimedia classroom equipped with 31 PC



**Above:** Ennio Nava, Executive Director of SMI, opens the new multimedia classroom dedicated to his father Luigi, company founder (Photo Andreato).

The dynamism of Smigroup has always been based on the principle of the "development culture" which has found, in the Bergamo area, fertile ground for success, thanks also to the fruitful collaboration with the area's technical training institutes.



## ■ Use the company as a classroom

This is the primary aim of the "Work-related Learning" project which has allowed students from the fifth form of the Turolfo Institute to acquire skills that can be used in the world of work. Ennio Nava, SMI Executive Director, said: "The connection between learning and work has become increasingly closer. Until recently, work was mostly manual and, for that reason, young people left school early to find a job straightaway. Nowadays, things have changed and it is therefore necessary for training to be increasingly accurate. In this cultural and social landscape, schooling cannot be left alone; it must have the territory by its side. The work-related training project is a concrete example of a new way of training. Learning while on the job," Ennio Nava continues, "is the schooling of today, which sees teaching as direct participation able to support the personal motivations of students. Our experiences of work-related training tell us how important it is to provide youngsters with the tools they need in order to face their own life paths independently and how useful it is to put them into contact with the working environment which they often know little about. SMI supports and encourages these experiences, which promote awareness, develop working activity and are factors for growth and maturity".

## ■ WE WILL BE ATTENDING...



Düsseldorf  
GERMANY  
12-18 MAY



São Paulo  
BRAZIL  
7-10 JUNE



Bangkok  
THAILAND  
15-18 JUNE



Mexico City  
MEXICO  
21-24 JUNE



Las Vegas, NV  
U.S.A.  
26-28 SEPTEMBER



Beijing  
CHINA  
6-8 NOVEMBER



Nuremberg  
GERMANY  
7-11 NOVEMBER



Bogotá  
COLOMBIA  
8-11 NOVEMBER

# Trade Fair Events:

great expectations for 2011



■ 2010 concluded successfully with a good turnout of visitors at the "SALON EMBALLAGE 2010", an international exhibition which, every two years, proves to be one of the major events in the packaging industry. This latest edition introduced - among the many sector themes - the importance of "green solutions", a matter of current interest which has been at the base of the Smigroup company

philosophy for years, which sets sustainable development as one of its primary objectives. The success of the Parisian show has given impetus to trade fair event planning for 2011, a year which is already filled with opportunities for interaction and business from the very first event. At the start of the year, Smigroup attended the UPAKOVKA/UPAK ITALIA 2011, a very traditional trade fair for the packaging industry,

held in Moscow from 25th to 28th January. Visitors showed great interest in the machine on show at the SMI stand; a rotary stretch-blow moulder SR6, ideal for producing PET containers of 0.2 to 3L with shapes varying from the simplest to the most innovative and complex. For some years now, another crucial event for Smigroup has been the Algerian trade fair DJAZAGRO, International Trade Fair for the Food Processing Industry, which will take place this year from 11th to 14th April. Building on its presence in the North African market,

Smigroup confirmed its faith in the prospects for growth in this area by exhibiting an Smiflexi LSK 35/F shrinkwrapper, suitable for film wrapping plastic, metal or glass containers in many different formats, at a maximum production speed of 35 packs per minute.

The steady growth of the economies of Mexico and Brazil has inspired SMI to confirm once again this year its presence as an exhibitor, through its own local branches, at the two major shows in the packaging sector in these countries: EXPO PACK MEXICO and FISPAL TECNOLOGIA.

These two trade fairs have for years been a magnet for thousands of visitors, who meet in June in Mexico City and San Paolo to admire the latest technologies of the large international manufacturers.

## ▪ INTERPACK 2011: the not to be missed event of the year

Safety, sustainability, convenience and design: these are the key themes around which the 2011 edition of INTERPACK (Düsseldorf, 12-18 May) has been developed; a trade fair which will occupy the entire exhibition space at the Messe Düsseldorf.

With over 50 years of history, Interpack is the largest international event in the packaging sector, where, in 19 large pavilions, thousands of companies from over 50 countries introduce the very best that technology has to offer for the automatic packaging of food and beverage products, cosmetics, pharmaceuticals, industrial and non-food products.

A full programme of conventions and workshops allows all operators and visitors to learn and to bring themselves up to date with the most recent themes: the "Safe Food" conference, in collaboration with the FAO, focuses on techniques of food packaging which reduce food wastage; the "Innovationparc Packaging" focuses on the theme of "Quality of Life", which is supported by "Metal

Packaging Plaza", a new international point of contact for metal packaging.

At the 2011 edition, Italy will be ranked second in the countries with highest numbers of exhibitors.

Smigroup is choosing INTERPACK as its platform to officially present to the general public the new integrated ECOBLOC® PLUS series system of stretch-blow moulding, filling/capping and labelling by Smiform. This is an innovative system with high technological content, able to satisfy the expectations of the market in terms of production efficiency, cost reduction, energy saving and operative flexibility. At SMI's stand, visitors will be able to see the Smiflexi SK 350/F shrinkwrapper in operation. This machine is ideal for packing plastic, metal or glass containers in many different pack configurations. An area of the stand will also be dedicated to products under the SMIPACK trademark, which will introduce various models from the vast range of angular packers and those with sealing bars.





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