Zoppas Industries

SIPA

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FOCUS ON
NECK LIGHTWEIGHTING
NOVEMBER 2011

PET PACKAGING NEWS OF THE WORLD

SIPAMAGAZINE

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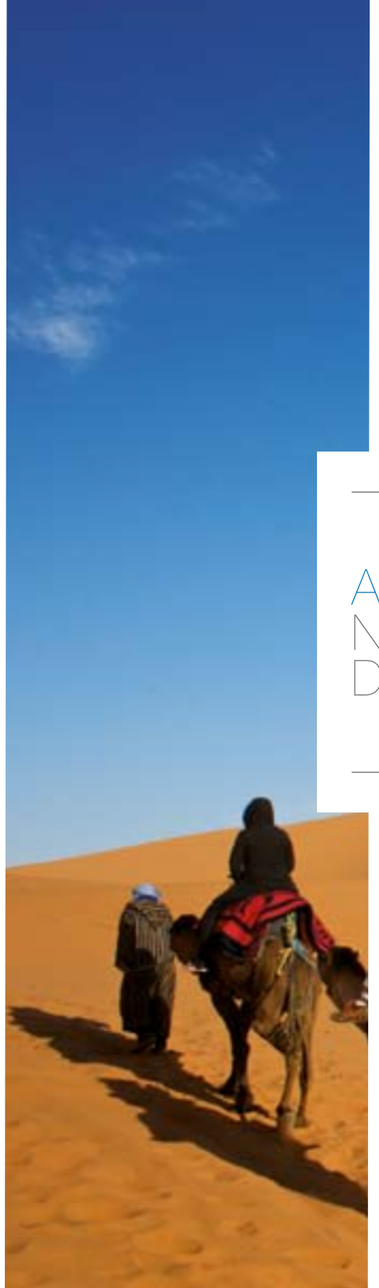
SUMMARY

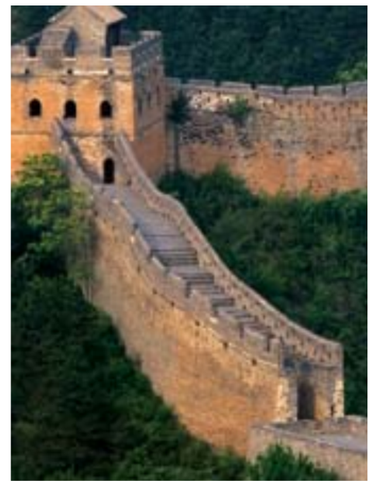
EDITORIAL

This issue of SIPA MAGAZINE is full of information about new developments from SIPA that are enabling our customers make better products, more efficiently. But SIPA does not create these developments all by itself, they do not come about in isolation. They come about through close cooperation with customers. Cooperation that enables SIPA to make the products and provide the solutions that exactly meet customer needs. (And also, as our article on Lean Production shows, cooperation between departments within SIPA itself that enables it to create those products and solutions at a price that makes sense). It is 25 years since SIPA started building PET bottle machines. The experience and expertise that the company has built up over that time is vast. This is what helps us to select the appropriate solution to specific needs. But it is not the only thing.
We need to stay close to our customers to make sure that what we are developing now is really what they will want in the future.
I believe that the case histories we publish in these pages carry proof that we are very much in touch with the market. I also believe they demonstrate how SIPA is continuing to improve its offering as it further develops into a total solution provider, with market-leading machinery and equipment backed up by unparalleled customer consultation, after-sales service and technical back-up.
This is an exciting time for SIPA. We are in a phase of rapid innovation and change that will enable us to further broaden our offerings and our ability to provide tailor-made responses to customer requirements. As we continue to work on new and innovative developments, we need to make sure that our customers are constantly kept up to date with what we are doing, to assist them in every specific need, to make them masters of their own domains, by providing them with the information necessary to make measured technical decisions, to share with them the same goals. We will listen carefully to what our customers tell us, and we in turn will make sure they understand our products, we will make those products easier to use, and be on hand to deal with whatever request or requirement comes along. Above all, we will offer our all-round experience, built up over the years, in high performance packaging solutions. Whether it relates to injection and blow molds, producing preforms and bottles, or complete lines. After all, SIPA understands PET packaging from start to finish. We also have to look into the world beyond, so that we can answer at least some of our customers' questions even before they ask them. The world is a fragile place and we know we have to take better care of it. That is why SIPA pays particular attention to solutions that reduce packaging weight and reduce the consumption of PET. "Sustainability" is not a buzz word for SIPA, it is a serious business issue. I have only been with SIPA for a few months. But have been in the sector for many years, and I have known for a long time that SIPA solutions are on the cutting edge of technology, and that the company's innovative strength is what makes its machines special. SIPA has always invested energy as well as money in innovation and will continue to do so.
Your future is safe with SIPA!

Enrico Gribaudo
General Manager



AROUND THE GLOBE:
NEWS FROM THE DIFFERENT CONTINENTS



SIPA SUPPORTS SPARKLING SUCCESS FOR COCA-COLA IN BRAZIL

SIPA SFR 12 EVO rotary blow moulding equipment is blowing up a storm at Norsa Refrigerantes, Coca-Cola's contract bottling operation for northern Brazil. The company took delivery of its first unit last year, and has already just received the second one.

Luis Dantas is Industrial Manager for Norsa's plant in Salvador, the state capital of Bahia and one of the host cities of the 2014 football World Cup. Recently, SIPA Magazine had the opportunity to put some questions to him about the company, its cooperation with SIPA, its plans for the future, and its important work in the community.

SIPA Magazine: Coca-Cola Norsa is an important enterprise, the outcome of a significant evolution. Could you briefly describe the important moments in the history of the company?

Luis Dantas: Since its formation in 1998, Norsa has experienced several key events, including the acquisition of the Macaíba Factory in the state of Rio Grande do Norte and the launches of various products such as the "Del Valle" and "Leon" brands that have increased our product portfolio, as well as achieving a record 150 million cases of Coca-Cola sold in 2010.

SM: Can you please briefly describe your company? Do you have some numbers for us?

LD: Norsa is a beverage company that was founded in 1998 when Coca-Cola franchisees in the Brazilian states of Bahia, Ceara, Piaui and Rio Grande do Norte were all joined together. Over the intervening 13 years, the company has achieved

absolute leadership in the soft drinks market. With five factories, ten distribution centers and two sales centers, Norsa has more than five thousand employees and supplies soft drinks, juices, teas, energy drinks, chocolate, hydrotonics, sports drinks and waters, as well as Heineken Brazil products, to around 150,000 points of sale.

SM: What criteria does CC Norsa use for selecting its suppliers?

LD: Norsa strictly follows the principles of conduct for providers that were created and are overseen by the Coca-Cola system. The principles cover the following areas:

Practices in the Workplace

- Selection and Evaluation
- Health and Safety
- Child Labor and Forced Labor
- Wages and Benefits
- Collective Bargaining
- Environmental Practices
- Communication
- Minimum Requirements

As a minimum requirement, suppliers to Coca-Cola and suppliers authorized by The Coca-Cola Company must comply with applicable laws and follow the standards in the following areas in their operations as a whole:

- Legislation
- Child Labor
- Forced Labor
- Collective Bargaining
- Wages and Benefits
- Workload and overtime
- Health and Safety-Working conditions according to local laws
- Environment.

SM: The aim of many suppliers is to become, first and foremost, a partner. At Norsa, have you created this kind of relationship with SIPA?

LD: Absolutely. The starting point of this partnership project was the blowing molding unit at our plant in Vitória da Conquista, in Bahia, where we have obtained excellent results, significantly improving the supply chain and the productivity of the operation. Now, in 2011 and 2012, we will have the opportunity to maintain this partnership with our project for the Simões Filho plant (also in Bahia).

SM: What has been, in your opinion, the main innovation or point of strength in your partnership with SIPA?

LD: SIPA has shown itself to be a partner that is flexible in its planning and design, offering a good level of after-sales service.

SM: What prospects are offered in the beverage market in Brazil?

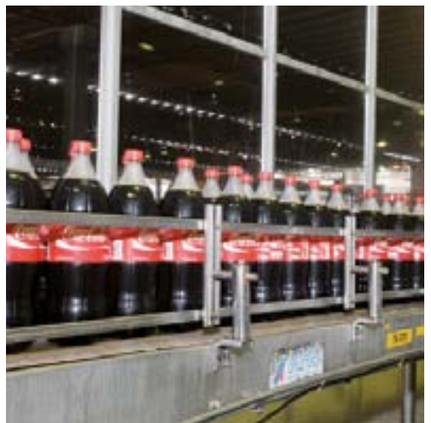
LD: The beverage market is showing steady growth year after year, with a key point coming up in 2014 with the World Cup - at which time there will certainly be significant growth, mainly because we will cover three World Cup sites (Fortaleza, Salvador and Natal).

SM: What contribution is CC Norsa making to the development of a sustainable future?

LD: Norsa is putting important projects into practice, both to improve production and also for the preservation of the environment, with actions that form part of the "Viva Positivamente" ("Live Positively") sustainable development platform.

This rests on seven pillars of action: Water, Energy and Climate, Healthy Living, Benefits of Beverages, Community Projects, Sustainable Packaging, and Work Environment.

Since 1999, Coca-Cola Brazil and its franchisees have been promoting a recycling program called Ganhou ("Win"). Among the actions we have taken is the support of cooperatives collecting solid waste, which generates income and provides decent working conditions and citizenship for



their members. In the area covered by Norsa, this environmental action involves more than ten cooperatives and some 500 waste collectors.

Every year the company participates in a significant way in Ocean Conservancy's International Coastal Cleanup Day.

Another area we focus on is youth training for the labor market and encouragement of entrepreneurship. In 2010, we launched a project called "Colectivo" (Collective), an innovative social initiative that has the aim of training young people in classes C and D to increase their chances of gaining employment and income.

Coletivo starts with the development of vocational training centers within communities, through NGO partners.

In these centers, courses are offered combining lectures with practical activities. After this, we help participants to enter the labor market through our partners and customers.

A.G. BARR COMES TO THE END OF THE LINE WITH SIPA

BARR SOFT DRINKS

SIPA is particularly active in the U.K.'s soft drinks market, with the installation of complete lines and components. One of the most significant references in the region is a complex robotic end-of-line packaging system recently installed at A.G. Barr in Cumbernauld, close to Glasgow, Scotland.
A.G. Barr has been making soft drinks since 1875, and is the owner of the iconic Irn-Bru carbonated soft drink - originally called Iron Brew, because it was developed to quench the thirst of local steelworkers, and now sold around the world. The drink, together with various derivatives the company had introduced over the years, continues to grow in popularity. Having learnt from an earlier installation that SIPA systems offer high performance and reliability, A.G. Barr decided to continue its collaboration to further optimize operations on the system. This upgrade included the integration of the latest SIPA innovations in pallet layer preparation. The total SIPA system now provides A.G. Barr with the logistical capability of operating lines for glass bottles, PET bottles, and aluminum cans, all at the same time.
The original robotic feeding and preparation system has been completely replaced with a Fastlayer 1.1R robotic layer preparation system with active rotation of the packs. This solution provides huge benefits in terms of speed, with an increase in overall performance, improved handling of the pack - much more precise and delicate - and increased flexibility. Format changeover times have been cut to almost zero. The new SIPA system has five depalletising/palletising

robots for crates and packs (bottles and cans) simultaneously, on different pallet types. One robot handles palletization (up to 2200 crates per hour), a second one handles depalletization (up to 2200 c/h) of glass bottles crates. Then there is a double-infeed palletising robot for PET bottle packs (up to 3600 p/h), a three-way infeed palletising robot for can packs at speeds of up to 4000 packs per hour, and finally a robot to control that the empty pallets at the system inlet remain intact and that the crates are properly loaded with bottles.
Operative flexibility is the key, since the fast-developing market in soft drinks calls on a huge number of sizes and types of packaging to be handled. Robotics provide the maximum flexibility, and offer the built-in ability to be reconfigured to react quickly to changes in marketing strategies. Another reason why SIPA recommended robotics is that the project had to fit into a confined space. SIPA also supplied the complete conveying system linking the robots.
This is the operating heart of the installation: a centralized system that conveys empty and full pallets of different dimensions and types, with a "push" automation system

to feed or discharge all the working positions. Together, the robots handle a throughput of more than 300 pallets/h. The installation is completed by a traditional GENIUS DS glass bottle depalletizer for the reintegration of the returnable glass bottle line, two stretch wrapping machines and a shuttle.
Considerable attention needed to be paid to the control system and to machine operation: each solution has its own interfacing and monitoring system - an operator panel that guarantees a series of advantages in operation control, reporting, simplified maintenance and remote assistance.
Each application is linked and integrated into a general supervising system to ensure the availability of a large range of information and reports about the functioning of the whole application, together with focused analysis.
The system as a whole provides an excellent example of SIPA's ability to provide quality, high technology and engineering capabilities in special and complex applications, thanks to 40 years' experience in the bottling field.
But that's not all. SIPA also updated and reorganized A.G. Barr's line for 2-liter PET bottles, with the addition of a highly flexible end-of-line operation that provides for palletising of packed and loose bottles on traditional pallets, half-pallets and plastic trays. In this case, SIPA has supplied a ROBBY PAL palletizing robot complete with a FASTLAYER 1.1R for layer preparation, together with a separate table for input of loose bottles, a second robot for handling pallets, half pallets, interlayers and trays, and finally a rotating wrapping unit with twin arms.
The integration of all these elements ensures a high level of performance (up to 30,000 loose bottles per hour or 5000 packs/h) and optimization of the various production cycles.
It is also extremely flexible in its ability to handle both packs and loose bottles, using automatically exchangeable grip heads. The range of final packaging solutions is also wide, ranging from the traditional pallet to the half-palette - both capable of using interlayers - through to plastic trays. All these configurations can be achieved with very fast changeover, easily implemented via the operating panel.
The palletization system is also connected via a bus to the central pallet handling and control system.

"BOTTLING LINES RAIN" ON THE SUBCONTINENT

If you want a Pepsi in India, there is a good chance that it will have been bottled by Varun Beverages Ltd (VBL). This company is the biggest bottler for PepsiCo in the country, manufacturing and marketing not only Pepsi but numerous other PepsiCo brands as well as some local drinks.

And if you buy a Pepsi bottled by Varun Beverages, there is a good chance that it will have been produced on a line installed by SIPA.

VBL is part of Ravi Jaipuria Corporation - RJ Corp - which runs around 13 PepsiCo bottling plants in India and several other countries.

Headquartered in Gurgaon, RJ Corp has a wide range of businesses in the food and drinks sectors and is also involved in medical technology and education.

VBL has a total of thirteen plants in India, Nepal and Africa and accounts for 30% of Pepsi's business in India. Over the last three years, SIPA has produced and installed equipment in several of these plants.

The first rotary blow molding machine, an SFR 20 EVO went into VBL's plant in Kosi (Rajasthan) in 2009. Running at 40,000 bottles per hour, it provided the company with an important leap into high speed CSD machines for bottle sizes from 0.6 to 2 liters. Within a year, Varun Beverages had placed a new order with SIPA, this time not just for an SFR 20 EVO, but for a complete 40,000 bottles-

per-hour blowing, filling, labelling, wrapping and palletizing line for its facility at Jodhpur. The SincroBloc technology was introduced here for the first time in India. R.J.S Bagga, Technical Director of Varun Beverages, was the man who identified the advantages of the SincroBloc over other stand-alone machines and who took the decision to head in this new direction. SIPA quickly and efficiently installed and commissioned the complete line. VBL says production during the peak summer season in 2011 was a huge success. In the same year that it ordered this complete line, VBL also ordered a hotfill machine, an SFR 12 EVO with an output of 18,000 bottles per hour, for its Kolkata plant.

This equipment too was commissioned before the season of 2011. SIPA also in this case provided blowing molds for the full range of bottle sizes, from 300 ml to 2 liters. The success of bottling line in Jodhpur and the advantages that Varun saw in turnkey solutions based on the SincroBloc System have so helped to decide earlier this year to take three more fully integrated lines in 2011.

Two lines are for the company's plant in Nuhu (Haryana), one based on a SincroBloc SFR 20 EVO and the other on a SincroBloc SFR 12 EVO.

A third line based on a SincroBloc SFR 20 EVO will be installed in Guwahati (Assam). The three lines commissioned, altogether, will increase Varun production potential up to 104,000 b/h. SIPA India supplies most of the technical services and spares for all the equipment it has installed for Varun, and also trains the operators. Varun Beverages always takes extra efforts to keep trained and skilled operators to run the lines and is keen in following best manufacturing practices.

PEPSI PRAISES SIPA FOR ALGERIAN TURNKEY PLANT

Atlas Bottling Corporation (ABC) based in industrial area of Rouïba, Algeria is one of the latest proud owners of a complete SIPA PET bottling line for carbonated soft drinks. The company, was born from a partnership between Pepsi Cola International and MEHRI Group in Algeria. Established in 1995, ABC Pepsi is one of the most important bottling plant in Algeria, it produces PEPSI beverages, MIRINDA and 7up.
ABC bottling franchise for the country, took delivery of the system at the beginning of the 2011.
The whole supply of the line has been extremely challenging because of the wide range of interventions: two retrofitting on existing lines and the supply of a brand new turn-key line. The first retrofit was operated on the 2 liters PET bottling line with an output of 12,000 bottle/h.

For this line we supply a new rotary blow molding machine SFR 8 EVO, a sleever and a shrink-wrapper labeling system and conveying systems. The second retrofitting refer to the glass bottling line, and include the supply of our latest technology in terms of blending unit: the MASS-BLEND 12 for 12,000 l/h. This is a continuous beverage deareation, carbonation and mixing system with massic controls. We also provide a

camera bottle control solution and a part of conveying systems. Major SIPA delivery is a high performances complete turnkey plant, including piping, electrical power distribution, compressors and a cold water production system. A real partnership has born between SIPA and ABC: starting form a deep analysis of the plant status, the production and logistic needs coming to the line engineering design in order to match all these requirements. This is an high performance complete bottling line for PET bottle with an output of 30,000 bottles per hour with 2 L. It is design for the handling of several bottles sizes 0.5, 1, 1.5 and 2.0 L., therefore the flexibility is one of the key point: all the machines feature a quick change-over to reduce at minimum the downtime. This new line is based on SIPA latest technology and includes: SFR 20 EVO rotary stretch-blow molding machines:

• 130 valves Isotronic monoblock rinser-filler-capper: with an electronic volumetric filler for bottling carbonated and non-carbonated beverages. In order to guarantee and high hygene level, all the block features a laminar flow cabin.

• Massblend 42 a continuous beverage deareation, carbonation and mixing system with massic controls.

• Automatic high-speed.

• Genius palletizer equipped with the FastLayer 1.1: the state of the art of the robotic layer preparation with the active packs rotation.

• Labeller and shrinkwrapper.

• Full pallet strecht-wrapper.

• A full conveying system: air conveyors, slat chain conveyor for bottles and packs and pallet conveyors.

Mr. Mohamed Zidane is ABC Pepsi's Technical Director. He says the company chose SIPA for a host of reasons, including its technical support and overall availability throughout negotiations for the installation, its know-how, its capability to retrofit existing lines, and its after-sales and spare parts service.

He also says SIPA lines take up less space than competing lines: they did a very good overall line design providing a very compact and reliable solution, and furthermore the installation of the line was completed very quickly, one month and half before the contractual date!

Mr Zidane complements SIPA for its high efficiency and its ability to deliver, install and commission on-time, within tight deadline. He also praises the machines for their ease of use as well as their ease of maintenance for local technicians.

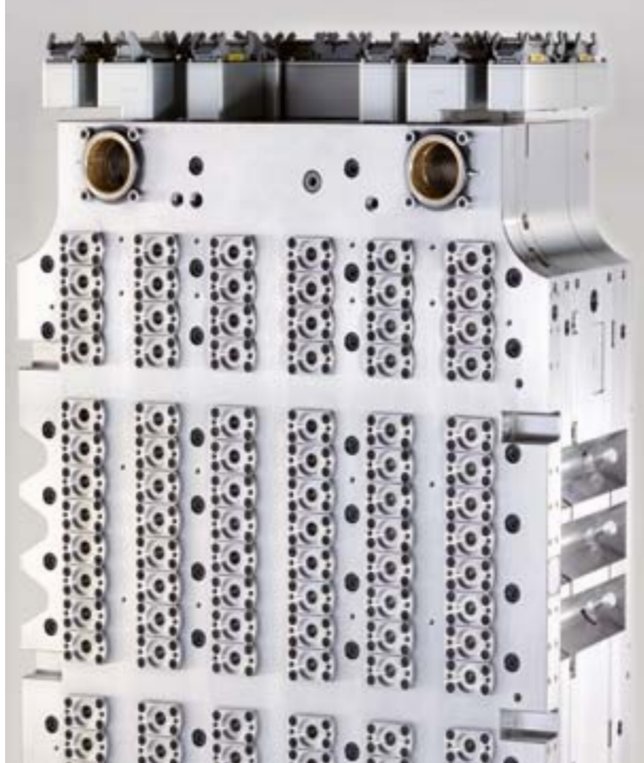
MAJOR CHINESE EDIBLE OIL PRODUCER TAKES MAXIMUM ADVANTAGE OF SIPA TECHNOLOGY

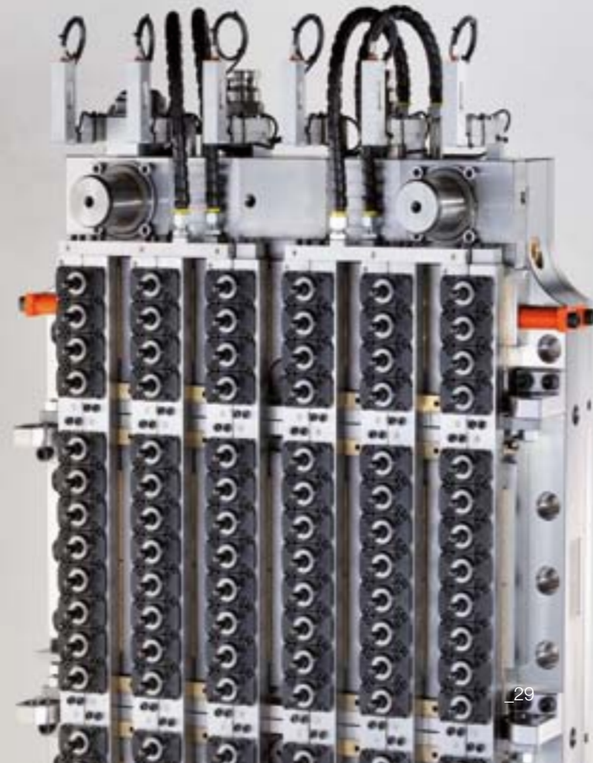
One of China's largest producers of vegetable oils now bottles much of its output using equipment from SIPA. Over the last four years, Yihai Kerry Group in Shanghai has installed 26 linear blow molding machines in various configurations, as well as two PPS300 preform injection moulding machines, and it will soon be the recipient of three more SFL lines. SIPA is the largest supplier of blow moulding equipment to Yihai Kerry, which uses the machines to blow bottles in sizes from 0.9 liters all the way up to 5.3 liters. Yihai Kerry is also now an important user of SIPA technology for automatically inserting handles into containers sized 1.8 and 2.5 liter. The handles are attached to the bottles directly after they are blown. Part of Wilmar International, Asia's leading agribusiness group, Yihai Kerry began using SIPA equipment in 2007. Over the last four years, it has installed twenty SFL6/4L units, four SFL6/6 types - three of them with handle applicators - one SF12/6, an SFL6/6XXL (one of SIPA's most recent introductions) and two PPS300 preform injection moulding units. In the next few months, it will take delivery of one more SFL6/6 with handle applicator, as well as another SFL6/6XXL and a SFL4/4XL with handle applicator.

With SIPA blow moulding machines capable of producing as many as 6,000 bottles every hour, Yihai Kerry is taking maximum advantage of the equipment's high cost efficiency as well as its innovative aspects.

Wilmar International has grown extremely quickly since it was founded over 20 years ago.
It is now one of the largest companies by market capitalisation listed on the Singapore stock exchange.
Its business activities include oil palm cultivation, oilseeds crushing, edible oils refining, sugar, specialty fats, oleochemicals and biodiesel manufacturing and grains processing.
Headquartered in Singapore, Wilmar has over 300 manufacturing plants and an extensive distribution network covering China, India, Indonesia and some 50 other countries to support a well established processing and merchandising business.
Wilmar also manufactures and distributes fertilisers and owns a fleet of vessels.
The group is backed by a multinational staff force of more than 88,000 people.
Today, Wilmar is the largest global processor and merchandiser of palm and lauric oils and the largest palm biodiesel manufacturer in the world, as well as being a leading consumer pack edible oils producer, oilseeds crusher, edible oils refiner, specialty fats and oleochemicals manufacturer.

MAJOR SAUDI CONGLOMERATE COUNTS ON SIPA FOR PREFORM MOLD





As a full-service supplier to the PET bottle community, SIPA not only makes machines, it also designs and develops a full range of packaging machines and molds. Molds not only for blowing the final container, but also for injection molding the preform.
And it doesn't stop there. SIPA-Molds, the dedicated division, makes complete molds - including hot runner systems - capable of running on all preform molding machines, not just SIPA machines. SIPA Molds provides complete preform molds, cold halves for existing hot halves (up to 144 cavities), and hot halves for existing cold halves (up to 96 cavities).
It also provides conversions of existing molds (full or partial kits), spare parts and does refurbishment. Saudi Arabian company Zamil Plastics Industries Limited (ZPIL) recently bought a 96-cavity preform cold half to fit on a machine supplied earlier by a major competitor.
Walid Afyouni, ZPIL's General Manager, gave us some key facts.

SIPA Magazine: Mr Afyouni, please tell us a little about your company and your products.

Walid Afyouni: Zamil Group Holding Company is a global investment company with diverse interests and capabilities. Across the continents we provide innovative, high quality and price competitive products and services as well as investment opportunities for investors, partners and stakeholders in the industrial, petrochemicals and services sectors. Our range of products and services spans from air-conditioning manufacturing to architectural glass processing, plastics to steel fabrication, paints and cranes to heavy process equipment. We are also engaged in shipbuilding and repair, port operations and maintenance, petrochemicals and chemicals, industrial investment and general construction.
The energy driving our more than 60 sector businesses is our 12,000-strong workforce in more than 60 countries, vast manufacturing facilities and strong affiliations with numerous international partners. Zamil Group has always been a pioneer and a leader within the business community in the Kingdom of Saudi Arabia.
Zamil Group began investing in the plastics industry nearly three decades ago. Our strategic path heralded our entry into capital intensive chemical and petrochemical projects in the early 1990s.
These continue to provide rewarding growth opportunities.
Zamil Group continues to build successful ventures with technology and market leaders, as well as with regional private companies. Our expertise, experience and strengths ensure we are well placed to continue offering our partners very exciting investment prospects. Our development plans usually comply with the market needs and market changes.

SM: Why did you choose SIPA for 96 cavities cold half, can you describe the product you purchased, the preforms, the customers?

WA: We believe that SIPA, which is not a small company, is capable of having a share in our PET business opportunities. Also it has good quality reputation in the mold market, and this encouraged us to do this deal. The product was a 96-cavity mold for 13.5-g water bottles for customers in the Kingdom and for the export market.

SM: What benefits did SIPA products give you?

WA: High Quality and Speed!

AROUND THE GLOBE - SAUDI ARABIA

Who is ZPIL?

Zamil Plastics Industries Limited (ZPIL) is part of the Zamil Chemplast, one of the most diversified and important industrial groups in the Middle East & Gulf region.
Zamil Chemplast interests in the plastics industry range, flexible packaging, woven & non woven PP, as well as intermediate chemicals, from major to various finished products, including PET preforms and rigid packaging.
ZPIL employs an experienced and talented staff of more than 300 people.
It has received numerous awards over the years, among them Saudi Arabia's "King Award", for a model factory, the "Ministry of Industry Award" for plant maintenance, and the Saudi "Consulting House Award" for industrial safety.

FROM RUSSIA WITH WATER

In a forest not far from Moscow, two artesian wells yield plentiful and pure drinking water said by the locals to have a positive effect on physiological and hormonal systems. In the village of Shishkin Les, the company of the same name filters and further purifies the still water, and then packages it in bottles ranging from 0.4 to 5 L in size on a line installed by SIPA. The Shishkin Les company was founded in 1998, and leads the Russian bottled drinking water market. “We’ve won clients’ trust and loyalty to our product because we follow our motto: Quality without compromises!” the company proudly proclaims. It carries out numerous quality control steps all along the filling and bottling line. Certainly no compromises were made with the SIPA bottle line. It incorporates

two SFL 6 linear blow molding machines, two pneumatic conveyors for the empty bottles, a Still-Fill-S 32.32.8 module for rinsing, filling and capping the bottles, a mechanical cap elevator, a conveyor for the filled bottles, and a pack conveyor. SIPA also integrated labelling, handle-applicating and shrink-wrapping equipment into the line. The line has been running successfully for the last five years, with an output of up to 16,000 bottles every hour.

Shishkin Les has another three SFL 6 units running on other lines too. Sergey Uger, General Director at Shishkin Les, says the company continues to grow. "The Russian PET market is rapidly developing and our company has to make hard choices about the right equipment", he says. "SIPA is well known as a leading PET equipment producer, and it is the company that best meets all our needs. We appreciate SIPA for its high quality equipment and service". Shishkin Les says that repeating the unique spring water composition is something just about impossible for manufacturers to do: reproducing processes that Mother Earth carries out in its subsoil is very hard to do. "So we long to keep the natural properties of spring water by minimal composition correction", it says. SIPA goes a long way to satisfy that longing!

AROUND THE GLOBE - RUSSIA

FOCUS ON
NECK LIGHTWEIGHTING

LIGHT FROM THE NECK DOWNWARDS

Everybody wants a lighter bottle, but very few know how to make one. It requires an holistic approach that considers every aspect of design, development and engineering, preform injection molding, bottle blow molding, handling, filling and sealing.
A lot has already been written about lightweighting the container body.
Here, we consider SIPA's approach to lightweighting PET bottle necks.
The neck is where the bottle wall is at its thickest.

Taking blow molding to the extremes of its capability can yield optimum results in producing very light containers, but the neck is determined by the preform injection molding process. To design a lightweight neck requires a detailed study of the passage of the product all along the process chain.
SIPA has developed innovations that allow a container with a lightweight neck to pass through all the stages of the production process without being damaged or deformed.

DESIGN AND DEVELOPMENT

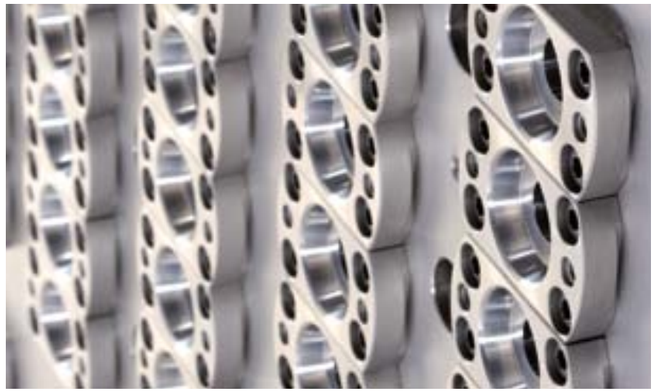
When SIPA designs a new lightweight neck, it has several targets in its sites:
• keep all areas relating to function and neck seal unchanged, so that the same closure can be used;
• analyse how the design performs all along the line, to minimize the need to change the configuration of the existing production operation (blower, filling line, etc..);
• consider the existing injection mold so that only the neck-ring needs changing;

• analyse how the neck performs during the filling to see how much the wall thickness in the neck can be reduced - optimize where necessary the air vents and exhaust, and consider possible treatments on the mold surface;
• internal tests to validate the new neck against the standard (using the same closures);
• if possible, carry out industrial tests at the customer with the use of a single neck-ring installed on the existing mold.

INJECTION MOLDING

Molding a lightweight neck is never simple. With a huge background as a packaging developer SIPA well understand all critical points.

In this case, having a small quantity of PET resin this may cool too quickly inside the injection mold and not be able to fill the cavity all the way to the top of the neck, giving a "short shot". During the development process, SIPA considers all factors, including the viscosity of the resin, that may affect this process, and its thermal profile inside the hot runner. It then carries out several tests to guarantee the perfect neck injection: dimensional checks to verify the correct formation of the thread, various physical and mechanical tests - for example on pressure resistance or the proper opening of the thread - and tests on chemical and/or biological contamination.



MOLD CONVERSION

SIPA aims to provide the best results with the lowest investment for its customers.
When it comes to converting the injection mold to a lightweight neck, the tendency is to change only the lip (for example when cutting the weight from 3.9 to 3.2 g). In these cases, reverse engineering is carried out to limit the risk of creating defects in the final product and to ensure the correct mechanical matching and duration of mechanical components of the mold. Whether the customer is in Asia, the Americas or Europe, it can always rely on SIPA's most advanced tool shops, located on all three continents, to guarantee the finest results with the shortest lead times.

THE THREAD

For flat water bottles, it has already been possible to reduce the weight of "Novembal 267" necks from 3.6 g to 2.6 g - that's a saving of 27%. With special modifications on the line, the weight can now be halved, to 1.8 g. For non-carbonated drinks, a 3.9-g 30-25 thread is very widespread; a stripped-down version weighing 3.2 g has already been used in several different projects. For carbonated soft drinks, apart from the now widespread PCO1881, which weighs 3.7 g compared to 5g for the PCO1810, SIPA is now validating an even lighter version weighing just 3.4 g. Again, by making appropriate changes to the line, it should be possible to go even further, and reach 2.5 g - a weight saving of 50%. Excellent results are also being obtained with the lightweighting of the PCO 28 mm for hot fill: a materials saving of 41%, from 6.4 g to 3.8 g, has already been achieved.

BLOW MOLDING

SIPA's rotary blow molding equipment now includes various innovations dedicated to ensuring proper processing of preforms with lightweight necks, including systems that enable the preform body to be reheated without deforming the neck. The innovations start at the very beginning, preform loading. This has been enhanced with the introduction of a system to expel preforms that have become lodged one inside the other - light preforms with small bodies do tend to stack together. The new system ejects them, enabling loading rates of up to 48,000 preforms / hour.

In the SFR rotary stretch-blow molding machine, the shape of the preform carrier has been improved in order to ensure the stability of the preform during heating and to keep the neck temperature as low as possible. In the oven, in order to process very light necks, SIPA has modified the ventilation modules to improve the cooling of the neck while increasing the capacity to heat the preform.
To further improve results, the configuration of the infrared lamps has also been suitably adjusted. SIPA's characteristic "crocodile style" vertical mold opening system keeps centrifugal forces on preforms and bottles at a very low level. This means that the grippers do not have to pinch the necks to maintain the preforms and bottles in the correct position.
This is an important advantage when it comes to easily deformable lightweight necks.

DOWNSTREAM

Filling and sealing procedures have to be carried out in a way that stresses the container as little as possible, whatever its design. But this is especially the case with bottles with lightweight necks. SIPA pays particular attention to the force applied by the lifting devices that raise the bottles during the filling process. What also has to be taken into consideration is that the contact force used for hot filling needs to be lower than for cold filling with carbonated soft drinks. Some hot-fill systems operate without the bottle touching the filling valve, and this limits the time that the neck is being heated to around 30 seconds, while the bottle is tilted. At this point, the bottle has already been sealed and so has been subject to the axial load applied when the closure is attached to the bottle. Furthermore, a neck with the closure in place is stronger than an unsealed neck.

Lightweight necks need to be sealed using an axial load that may be as little as half that used for normal bottles. This issue needs to be addressed together with the manufacturer of the closures, as the load required depends on the interference between the warranty seal and the neck finish.

INTEGRATED SYSTEMS: SINCROBLOC AND SINCROTRIBLOC

SIPA's Sincro Bloc is a compact and integrated system for high-speed blow molding, filling and capping that guarantees high quality standards at an output at anywhere from 14,000 to 52,800 bottles per hour. Thanks to its direct connection between blowing and filling, Sincro Bloc provides a solution that is particularly suitable for processing of lightweight necks and bottles. The absence of air conveyors, in fact, eliminates the possibility of potential jams. With Sincro Tribloc, which integrates bottle production, labelling, filling and sealing, the positive holding action using pincers helps even more, eliminating the air-assisted transport of the bottles between blowing and filling as well as the conveyor belt up to the labelling section. This has the potential to further increase the quality of the container.

TECHNICAL WINDOW ON SIPA PRODUCT PORTFOLIO: LATEST DEVELOPMENTS

AT SIPA, FROM PELLET TO PALLET WORKS WITH LARGE CONTAINERS TOO

When it comes to developing an application in PET containers, SIPA has it all.
Not only does it make the equipment and automation necessary to produce the container - and fill it, and label it, and package it - but it also has the technology, materials knowledge and design expertise to take an initial concept all the way through to reality. SIPA can provide truly independent advice on the best resin to use, it can design the optimum preform, it can act as a partner in fine-tuning the design of the container itself, it can produce and test prototypes.
This is a truly unique offering that applies just as much to large containers as it does to bottles and jars.
When we say large, we mean large - all the way up to 40 - liter and beyond.
And SIPA can apply its expertise to containers for all sorts of applications as well as all sizes: water, beer, vegetable oils, mineral oils, detergents, chemicals, etc..
SIPA's strength lies in its ability to understand the needs of the customer and develop a container that meets all of their requirements. SIPA can help design a container with improved ergonomics to make it easier to lift.
It can also suggest subtle changes that enable more containers to fit onto a pallet - vertically as well as horizontally - so the pallet is full of bottles, rather than full of air. As a result the logistic cost can be dramatically reduced with any impact on the market distribution.
Engineering design, together with esthetic design, is what counts with large containers.
SIPA can help designers who may not have the necessary competence in engineering to create products that not only look good but also perform properly at all stages in their life cycle.
A container that looks beautiful on the computer screen is of no use if it cannot be blown, or if it has insufficient top load strength.
All variables are considered when SIPA is brought into the development process.
And SIPA can do this, because of its total competence in the PET preform injection molding and final large container blow molding process, and also in mold making (preforms and containers) and in product design.

SIPA SERVICE IN ACTION

SIPA is already offering its large container service to numerous customers, all around the world. Only recently, for example, it helped Able Perfect an important producer of palm oil in Malaysia, in its development of square, stackable containers in three different formats, 10, 20 and 25 liters. A critical point in the project was that the packaging had to be compatible with the customer's existing production system (handling, filling, palletizing and warehousing). SIPA designed the preforms for the containers to optimize the blowing process as well as the cooling in the base of the containers – critical to ensure the stackability of the containers on the pallets.

All the customer's requirements were met, with a high performance package made on equipment that provided a quick payback on investment.

SIPA has also been particularly successful with the introduction of new systems for large containers in China. Yihai Kerry, part of Wilmar international, for example, now uses several dozen installations to produce 5-L cooking oil bottles. Among them is SIPA's new linear stretch-blow molding machine SFL 6/6 XXL, capable of running at 6000 bottles per hour. Another Chinese customer has adopted a complete SIPA solution for design and production of one-way 18-L bottles (each weighing 350 g), based on a PPS 300/12 L preform injection molding machine and an SFL 2/2 stretch-blow molding machine, providing an output of over 900 bph. SIPA developed the designs for the preform and the bottle. A second SIPA success in the water HOD market relates to a Chinese customer who asked for a new development of a five- gallon (U.S.) PET bottle to replace an existing polycarbonate container. The challenge was to achieve a lower bottle weight and a safe delivery of each single container over the tough Chinese road network. SIPA succeeded! Notably for big water cooler bottle there is not a conclusive law on weight and shape. Everything depends on the customer's needs and where the bottle have to be used. The counseling approach in this particular segment is what the industry appreciates more.

Another complete solution was delivered to a South Asian customer, for the production of 270-g, 10-L hot-fill soy sauce containers. Again, SIPA developed the preform and bottle designs, and production is also done on a PPS 300/12 L preform injection molding machine and an SFL 2/2 stretch-blow molding machine. In this case, hourly output is 1100 containers. Across the Pacific, SIPA developed a 68-g 5-L water bottle for a major multinational food company's operation in Mexico. The bottle resists a top load of 100 kg, thanks to the use of nitrogen during the filling phase.

A FULL SERVICE PACKAGE

The message is clear: for such mechanically demanding products as large PET containers, preform and final container design and production need to be considered together. SIPA can do this. In its various labs, it can do molding trials, and it can also do all types of relevant mechanical tests on prototype containers - top load tests, drop tests, implosion tests, burst test and more.

SIPA has competence in materials as well as machines and complete line engineering.

It is not tied to any PET resin makers, and so can make objective selection on which is the right resin to use for any application, in terms of processability, mechanical properties, barrier properties, optical properties, and so on.

SIPA is a global company, so wherever you are in the world, there is a design, technical service and prototyping facility not too far away from you, capable of working in tune with your needs. If you haven't done so yet, maybe it's time you put one to the test.

Think big. Think SIPA!

SIPA SINGLE-STAGE TECHNOLOGY MAKES EVEN MORE SENSE WITH INDUCTION HEATING

Whatever type of technology you want to make PET bottles, SIPA has the answer. Its preform injection machines and reheat stretch-blow molding units are among the best in the world. But the company's roots are in single-stage injection-stretch-blow molding machines. SIPA started making them over 25 years ago, and remains a strong proponent. Today, around 20% of SIPA turnover is currently attributable to the ECS range of single-stage machines. The system is the fastest single-stage platform available, with output up to 600 bottles per minute.

Customers can choose from 13 models, covering all applications and container types, from the smallest container for pharmaceutical to 110 mm wide neck containers, from simple single-layer types to complex designs with barriers against light, moisture and gases, active oxygen scavenging, retort capability and more. Not only is SIPA one of a small band of companies offering single-stage machines, but within that band, its strategy also stands out.

While other notable suppliers concentrate on applications for standard machines, SIPA single-stage machines are made to order only. SIPA single-stage equipment also tends towards the upper end in terms of output, with its smallest machine the same size as one other major supplier's largest: the ECS HS6 with a 1500-kN clamp. Its best selling ECS FX 20 can make 10,000 wide-mouth jars or 36,000 bottles up to 0.6 liter in size every hour.

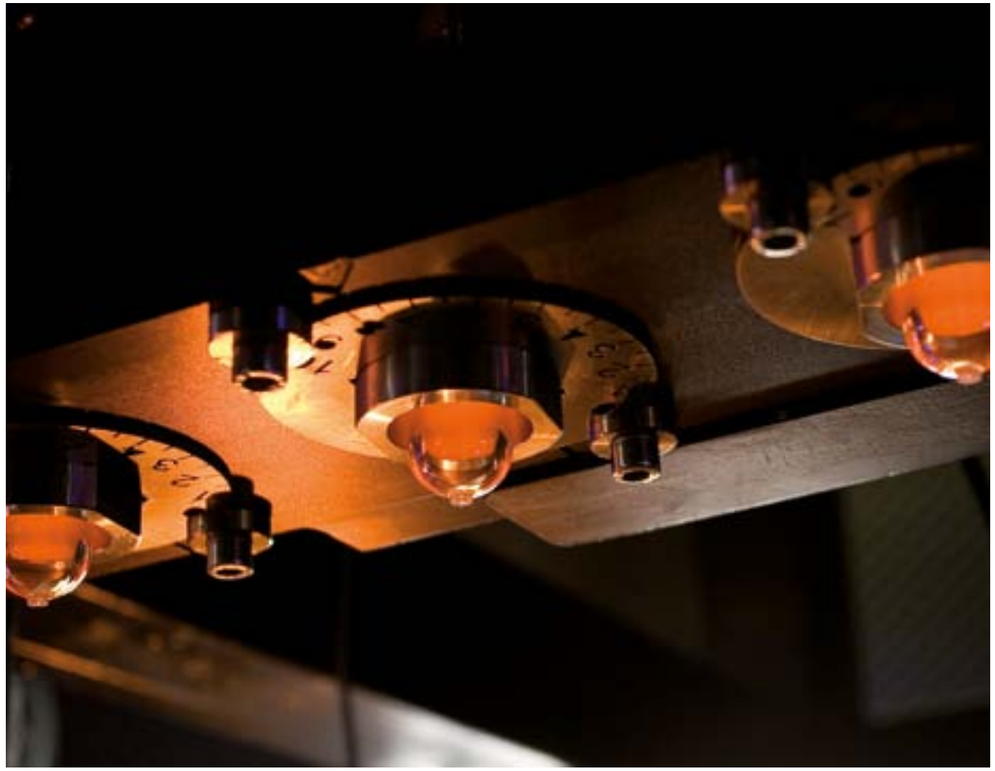
A WORLDWIDE POPULATION

There are now around 800 single-stage SIPA machines in commercial operation around the world. Around half of these systems are for regular beverage bottles - many of them to brand owners - 25% for heat-set types, 15% for various types of special containers for food, pharmaceuticals and cosmetics, and 10% for aseptically filled containers and edible oil bottles. In Europe, applications tend to be for wide mouth jars for hot fill, Kegs up to 20 liters, standard jars for cold fill and low production volumes, and containers that are difficult to handle with two-stage technology. Elsewhere, the machines are more commonly used for such applications as as high-volume production of jars and heat-set bottles, and for oval and asymmetric designs.

The integrated single-stage process guarantees the lowest production costs thanks to features unique to the system. Preforms designed for immediate blowing allow the highest bottle weight reductions in the market, for example, while the absence of external handling minimizes logistic and manpower costs. There are no energy costs associated with preform cooling and subsequent reheating. In addition, bottle quality is very high, for numerous reasons. For example, humidity during all production phases is very low, resulting in a higher level of crystallinity in the container, which in turn means higher mechanical performance and heat resistance. The absence of preform handling means containers have no scratches or blemishes. The process is also very clean, necessitating minimal chemical treatment during sterilization processes (aseptic filling) and lower filling temperature (hot-fill).

NEW HIGH-EFFICIENCY CONDITIONING PROCESS

The recent introduction of induction heating in the conditioning oven – a process patented by SIPA - makes the ECS single stage system more attractive than ever. Thermal conditioning is necessary to provide the correct thermal profile of the preform all the way from the base to just below the neck. The latter area comes out of the injection mold too cool to be blown, while the rest of the body is at the right temperature.
In previous systems, the area below the neck was heated up just before blowing with hot "air-knives", which required the preforms to rotate to ensure that the neck temperature was even around the full circumferencence. With induction heating, heating elements surround the area just below the preform neck, while protective shields prevent the body from heating up. Ths system therefore works without any need for the bottles to rotate, making the process more reliable and efficient, with longer maintenance intervals.
Hot air movement in the machine is eliminated, making it suitable for aseptic processes. Induction heating also provides unparalleled temperature control at all points of the preform, enabling the wall thickness profile to be fully optimized.
And this while cutting energy consumption during conditioning by as much as 40%. Induction heating can be installed on all ECS machines.

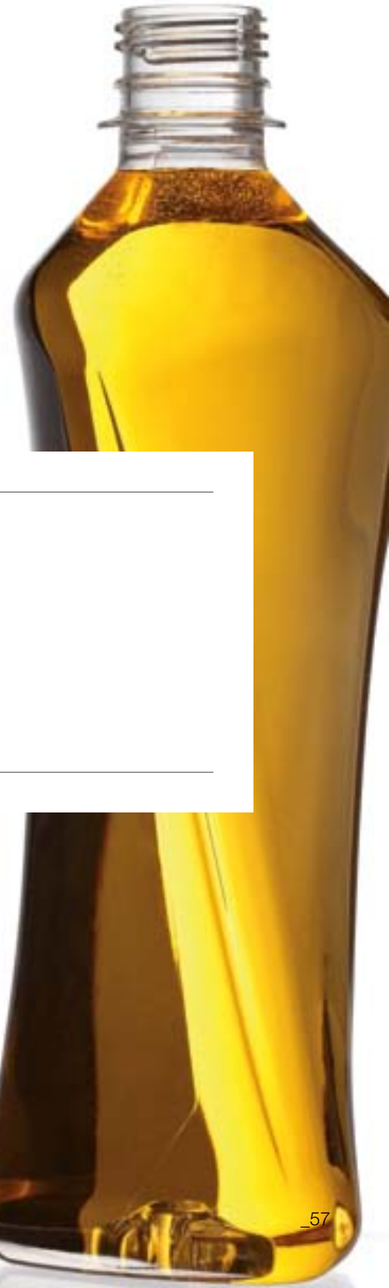


LEAN SIPA
LESS IS MORE

We are all familiar with the term "lean manufacturing". Some of us may even have read "The Machine That Changed The World", the book about how Toyota revolutionized car manufacturing. Well now SIPA is doing the same thing in PET bottle machine production, and the effect is just as startling. SIPA initiated a project at the beginning of 2010 to change itself into a lean enterprise. Which is not PR-speak for saying it started firing people. Rather, it fired them up, as some key figures demonstrate:

- Reduction in lead time per machine of close to 60%
- Reduction in work hours per machine of around 30%
- Reduction in assembly space per machine of 40%

These numbers apply to all of SIPA's stretch-blow molding machines, SFR and SFL types. Next year will be the turn of the company's preform injection molding machines. The project began in production, then moved into planning and product creation and design, and is now being applied to other departments. Synergies between commercial departments and production are being increased. Nothing works in isolation, everything is coordinated. Many things have changed, and continue to change, in going lean. For example, whereas in the past, SIPA would order machine frames in lots that necessitated substantial on-site storage, it now calls for them to be delivered regularly, on just-in-time supply, so that operators can start work on them immediately. This drastically cuts down on the time it takes to get components through assembly. In the assembly hall itself, work used to be carried out in static islands, in a relatively unstructured way. Now, all is planned, and as each important phase of assembly is finished, the machine, on a movable bed, moves from one location to another, on a regular basis. At each location, all the equipment and all the components are close at hand to carry out the work required, and the operators know how much time they have to do it. Everything in its place and a place for everything. For SIPA's SFL linear machines, assembly takes place in four separate phases. For the more complicated SFR rotary machines, there are seven stations, but this enables machines of all sizes, from six to 24 cavities, to be assembled on the same assembly line. As a result of going lean, SIPA is becoming ever more competitive and successful in a market that calls for equipment with increasing performance, quality and reliability, as well as punctual and impeccable service.



PETWORK: CONCEPT, DESIGN, ENGINEERING. WHAT'S NEW IN PACKAGING WORLD

PROBABLY THE MOST BEAUTIFUL PET BOTTLE IN THE WORLD?

"The successful launch of Ramlösa in a unique premium PET bottle has increased our numbers of customers by 16%, and the more environmentally-friendly packaging has been an important step in our CSR work". That's Paul Davies, Marketing Director of Carlsberg, speaking. Not about beer in this case, but about Carlsberg's range of Swedish mineral waters. The brand is over 300 years old, and highly familiar to most Swedes. It is sold in ten or so variants. The premium variant is for top restaurants and other high-end on-trade venues. The new PET bottle for the premium variant is a prime example of how SIPA uses its experience and know-how to help bottle designers and producers create solutions ideal for the application, whatever the market area. The water was for many years sold in a much appreciated but heavy glass bottle, expensive and doing not so many favours to the environment during production, handling and transportation. That's why Carlsberg last year gave Nine, a multidisciplinary innovation company based in Stockholm, the task of developing a new more environment-friendly bottle for the premium segment. The main design challenge was to create a bottle in PET that, in Davies's words, could give the right quality cues and so convince high-end customers that Ramlösa is a premium product, even if it is no longer in a glass bottle.

The design process took almost a year. The challenge was to implement the chosen design concepts of sharp cuts and angles in PET, giving it a cut-glass look.

As the mineral water is carbonated and therefore causes continuous changes of pressure, it took several hands-on adjustments in the design before the bottle could be approved in the production process.

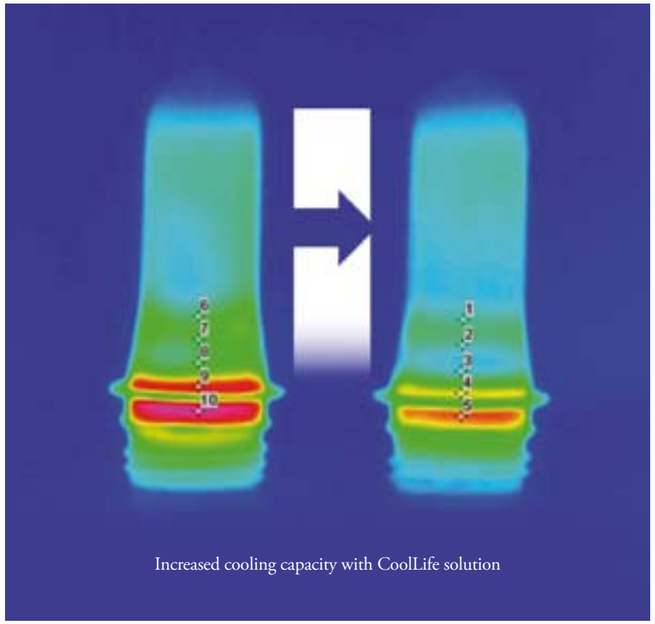
SIPA's design and industrialization experts collaborated closely with Carlsberg in the project to make sure that the ideas created by Nine could actually be implemented in real life. Without deviating far from Carlsberg's original proposal, SIPA produced new renderings that would satisfy not only Carlsberg's marketing needs, but also the functional requirements for the bottle.

The same design needed to be capable of being used for still,

semi-sparkling and sparkling variants of Ramlösa water.
In addition, SIPA worked with Carlsberg to enable the company to use numerous components of its existing production line, such as sleeve-labelling units, to minimize the investment in the new product. Carlsberg now produces the new Ramlösa bottles in-line with its filling equipment. A SIPA SFR 8 rotary machine makes 0,33- and 0.8-L bottles for one line. It even proved possible to engineer the bottle so that it can be used in existing machines installed around Sweden to accept returned “empties”. The machines read a code on the bottle and return a prepaid deposit, and for this the bottle needs to rotate in a particular way in the machine so that the code can be read properly. The new bottle was successfully launched in beginning of May 2011, and its highly innovative design is a key reason why more people than ever now choose Ramlösa. But this has been a success for the environment just as much as for Carlsberg: by moving from glass to PET, the company has reduced its carbon footprint for the product by a massive 65 per cent.

CHANNELLING WATER WHERE YOU WANT IT

SIPA has a whole new range of solutions to improve the cooling efficiency of PET preform molds. The company calls them CoolLife, and together they can help you save energy, cut cycle times, reduce condensation and make a better preform. Key to CoolLife is a much improved distribution of the cooling channels to each cavity as well as around the neck and the body sections of the mold, providing better cooling performance at a higher water temperature.
By adopting a new layout for delivering cooling water to each cavity, SIPA has found a way to increase the water flow per cavity while reducing overall water consumption. The new layout combines series and parallel distribution of the water to the cavities, effectively halving the amount of water required.



Increased cooling capacity with CoolLife solution

Strange but true. This is because the permissible difference in the temperature (ΔT) of the water flowing into and out of the cooling circuit is 3°C. In the past, systems used to run with a ΔT of just 1°C; in effect, they were too good.
A ΔT of 3°C can be achieved with half the flow rate and with a water input temperture of 14°C rather than 8°C - so the molder makes savings across the board. Reducing water consumption means less expensive pumps are needed, and higher water temperatures obviously translate into a lower cooling capacity requirement.
Improved cooling channel layouts for each cavity are now standard at SIPA. A "double decker" arrangement for the cooling channels around the preform neck considerably increases the total channel surface area (the "wet surface") in this important region.
Furthermore, the mold core and the neck ring have both been optimized to achieve the best cooling performance. As an option, SIPA also offers IceCool, using conformal cooling. This means that the cooling channels better conform to the geometry of the neck area, have an even greater surface area, and in addition induce turbulent flow, to provide further optimized cooling when necessary.
The channels are created using the latest technologies available on the market today.
IceCool can cut cooling times by some 25%, and total cycle times by close to 15%, while the optimized cooling arrangement also minimizes distortion in the preform.

SIPA bottless RANGE - 13.1 GRAMS FOR 500 ML HOT FILL BOTTLES

You may have to read this twice: the 500 ml hot fill Bottless from SIPA weighs 13.1 grams.
We repeat: Bottless. 13.1 grams. Clever, no? In every sense.
With the Bottless range, SIPA has taken another important step forward in its mission to minimize the environmental impact of PET containers. SIPA Magazine highlighted new developments from the company in this direction in mineral water bottles in its last issue, and since then the range has been extended with two new designs for hot-fill applications.
But while function has been the key objective in the development, form has not been forgotten. On the contrary, the new designs are beautiful in their simplicity.
The bottles are offered with different neck finish weights, according to the requirement of the customer. A 28-mm collar weighs 3.8 g, while the 33- and 38-mm versions weigh 6.5 g.
A rotary blow molding machine SFR can produce them at a rate of 1,800 bottles per hour per cavity.

VITTORIO VENETO AND SURROUNDINGS CUISINE, EVENTS, LANDSCAPE AND CULTURE: DISCOVERING OUR TERRITORY

DISCOVERING TASTE: LE CALANDRE

It is the only Three Star Michelin restaurant in the area, a score of 94 out of 100 in the Gambero Rosso Guide and an amazing 19.5 out of 20 in the Espresso guide. The name of this top-rated restaurant is Le Calandre (via Liguria 1, Sarmeola di Rubano, PD. Tel. 049630303), the dream come true of two brothers, Massimiliano and Raffaele Alajmo, who started out with the idea of creating a place where tradition and ingredients would be at the centre of culinary research. The dining area is warm, classic, rich in elegant furnishing materials such as linen, stone and leather; the cuisine is explorative, but always attentive to quality and the history of the ingredients, whether it is the folded ravioli of calamari and amberjack with mussel and clam sauce or the warm mushroom salad with fresh fruit and juniper sauce; the wine cellar offers an extraordinary selection of wine with its 1500 Italian and French labels, in continuous evolution. The best thing to do is to book a table and personally experience the magic of one of the four tasting menus accompanied by the wines selected by the sommelier, Angelo Sabaddin.
For information
www.calandre.com

CORTINA, QUEEN OF THE DOLOMITES

Cortina is the undisputed queen of the Dolomites, and not just for the jet set, VIPs and celebrity status which distinguish it all year, but also because (if not above all) its renowned ski slopes are among the most demanding, scenic and spectacular of the entire alpine arc.
Over thirty ski-lift systems, an entire district of slopes available (Dolomite Superski, the world's largest skiing district), over 80 downhill trails and also attention to the latest novelties in white tourism, such as the snowpark in Faloria for snowboarding enthusiasts.
The ski-lift systems open on 26th November, but there are many opportunities for an excursion to Cortina even before the skiing season begins: autumn is a season that offers a wide variety of flavours and culinary ideas, and numerous hotels and restaurants offer gourmet packages to discover the local cuisine. To enjoy one of the unique, exhilarating, exclusive shows, don't miss out on the week from 19th to 25th February 2012 with the Cortina Winter Polo on Snow, the polo tournament on snow which is held on the frozen lake of Misurina.
For information
www.dolomiti.org/ita/cortina

THE VENICE CARNIVAL

Venice is always magical, in the mysterious winter fog or the warm summer light which lights up the buildings with details.
No specific event is required to visit it, but there is no better moment to do so than during Carnival time, probably the most famous in the world. The 2012 edition will be held on the weekend of the 4th and 5th of February and will continue from the 11th to 21st February, to include the magical moment of St. Valentines, the feast for lovers. If life is theatre (as the organising committee declares) then let us all wear a mask and lose ourselves in the lanes and small squares of the city: from the moment of the Flight of the Angel from St. Marks bell tower, at midday of the first Sunday of celebration, the city comes to life with its characteristic masks, like the Bauta, the Gnagna and the Moretta, and if St. Mark's square, Canal Grande, Campo San Polo or Palazzo Vendramin are the sites of official events, each district of the city bursts with the desire to celebrate and grant itself a small characteristic transgression of the Carnival.
For information
www.turismovenezia.it
www.carnevale.venezia.it

THE LAST EMPEROR IN TREVISO

It is the fourth and last exhibition of the cycle on China and, for first time in history, the personal effects of the last emperor of China, Pu Yi, protagonist of the unforgettable film by Bernardo Bertolucci, will leave the palace of Changchun, to be displayed to the public in the rooms of Ca' dei Carraresi, the magnificent fifteenth century building restored by Fondazione Cassamarca and adapted to hold conferences and exhibitions. Weapons and uniforms, furnishings and valuable collections of the last dynasty before the birth of the People's Republic will be on display from 29th October 2011 to 13th May in this exclusive exhibition which the Chinese government has commissioned for the Year of China in Italy and to mark the fortieth year of the opening of diplomatic relations between the two countries.
For information
www.laviadellaseta.info

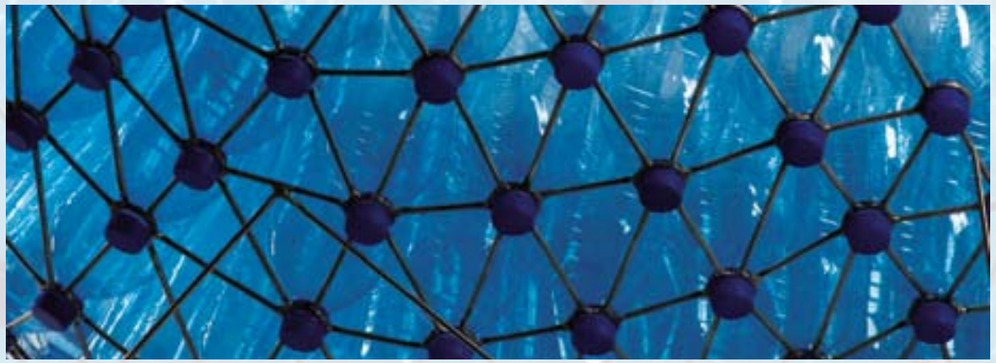
ORLANDO, "THE CITY BEAUTIFUL"

THIS FLORIDA CITY IS THE IDEAL DESTINATION FOR BUSINESS AND RELAXATION.

The NPE2012 fair will be held at the Orange County Convention Center in Orlando, Florida, from 1st to 5th April 2012. This is the plastic industry's most important conference and world expo and SIPA will be there (West Hall, Level 2, Booth 7963). SIPA will be showing on a large scale, with a 400 m2 stand, where it will be previewing for the first time, worldwide, a new product to be integrated with its already vast range. With more than 2000 exhibitors and 75,000 delegates from 120 countries, NPE2012 is one of the world's major events for the whole of the plastics production sector and it has chosen Orlando, which is one of the most important convention centres in the USA, alongside Chicago and Las Vegas. But "The City Beautiful" is not just dedicated to business: on the contrary, with more than 50 million tourists every year, Orlando is one of the most popular tourist destinations in the US, and not just because of its many hotel rooms – the second highest number in the country. As soon as you leave the city, you come to Walt Disney World Resort, the world's largest theme park complex, open since 1971 (it includes the Magic Kingdom Park, the Epcot Center, Disney's Hollywood Park and Disney's Animal Kingdom).
As well as Disney, there are other theme parks such as Seaworld, marine mammal park and oceanarium, and Universal Orlando Resort, the NBCUniversal theme park with behind the scenes action, thrills and spills from the world of US movies. And it doesn't stop there, because Orlando is truly a city built for leisure: with more than 170 courses, it is a genuine golfer's paradise and it also has some of the best-known spas in the world, including the Waldorf Astoria Spa by Guerlain and the Mandara Spa at Loews Portofino Bay Hotel; the Florida Mall and Mall at Millennia are among the largest outlets in the States, where you will find shopping at prices to suit all pockets in numerous stores like Neiman Marcus, Saks Fifth Avenue and Bloomingdales. And finally, when the sun goes down, it's time for nightlife with a vast choice of restaurants, ranging from the most informal with traditional US cooking, to fine dining and award-winning chefs, and lots of places in which to relax after a hard day's work.

NEXT EVENTS 2011/2012

06-08 NOV.	**CHINA INTERNATIONAL BEVERAGE INDUSTRY EXHIBITION ON SCIENCE & TECHNOLOGY (CBST) 2011** SHANGHAI, CHINA	*www.chinabeverage.org*
09-11 NOV.	**BRAU BEVIALE 2011** NURNBERG, GERMANY	*www.brau-beviale.de/en*
24-27 JAN.	**UPAKOVKA/UPAK ITALIA 2012** MOSKOW, RUSSIA	*www.upakitalia.it*
1-6 FEB.	**PLASTINDIA 2012** NEW DELHI, INDIA	*www.plastindia.com*
1-5 APR.	**NPE 2012** ORLANDO, USA	*www.NPE.org*
8-12 MAY	**PLAST 2012** MILANO, ITALIA	*www.plastonline.org*
20-23 MAY	**IRAN FOOD + BEV TEC 2012** TEHRAN, IRAN	*www.iran-foodbevtec.com*
12-15 JUNE	**FISPAL 2012** SAO PAOLO, BRAZIL	*www.fispal.com*
26-29 JUNE	**EXPO PACK 2012** MEXICO CITY, MEXICO	*www.expopack.com.mx*
28-31 SEPT.	**PACK EXPO 2012** CHICAGO, USA	*www.packexpo.com*



THE PET CHAIR BY PAWEL GRUNERT

A PERFECT EXAMPLE OF CREATIVELY RECLAIMED MATERIALS

Stairs, doors, bookcases and wardrobes, plus complementary furnishing items and fireplaces: there is no piece of furniture that has not fallen under the creative scrutiny of Pawel Grunert, the man behind the SIE43, chair made in used bottles and barbed wire presented on occasion of the Eco Trans Pop exhibition at the Galleria Colombari, Milan. Pawel Grunert was born in Warsaw, Poland and he also graduated there, from Interior Design faculty of the Academy of Fine Arts with a work on chairs. From that moment onwards, he has not ceased to create items to improve and enhance our homes, often working with poor, natural or reclaimed materials, for which he invents new functions and life. Just like in the case of the SIE43, a chair made from more than 100 unmodified PET bottles, to make the most of the material's resistance: in fact, it is the air inside the bottles that keeps them in shape, making the chair stable, which has been created by placing the bottle necks into metal rings, welded together and held in place over an ultra-light triangular mesh. With its floral shape, which has made what could have been a commonplace item into something unique and extraordinary, the SIE43 is more than an artistic concept of creative recycling, it is a functional design item with an "eco" touch that comes from the re-used materials: the way the bottles are fitted together has been designed so that each one can be easily replaced if accidentally spoiled or damaged, making the recycling process virtually infinite.

WWW.GRUNERT.ART.PL