FOCUS ON
SIPA EXPANSION
OCTOBER 2012

PET PACKAGING NEWS OF THE WORLD

SIPAMAGAZINE

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SUMMARY

*"**SIPA Machinery Hangzhou** totally renewed toolshop"*

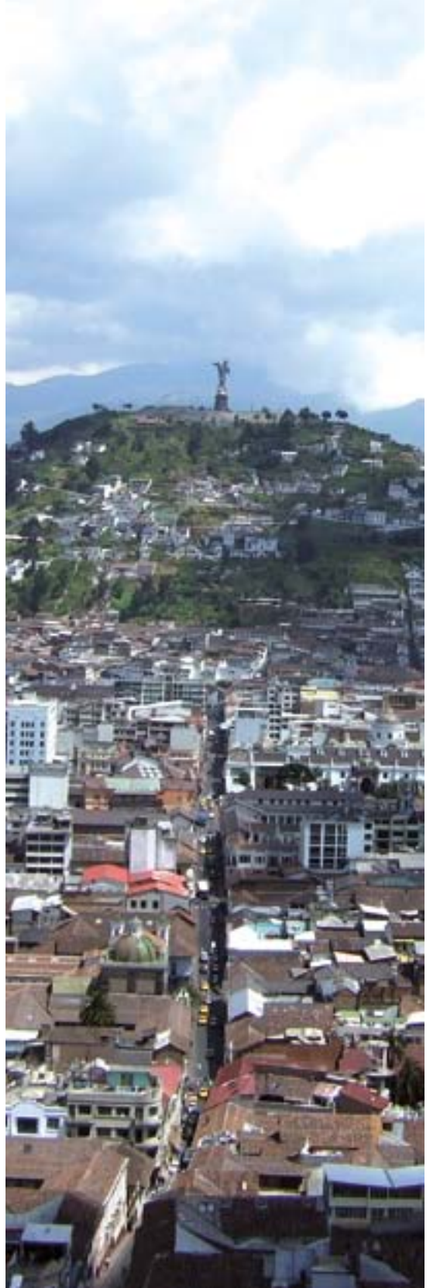
EDITORIAL

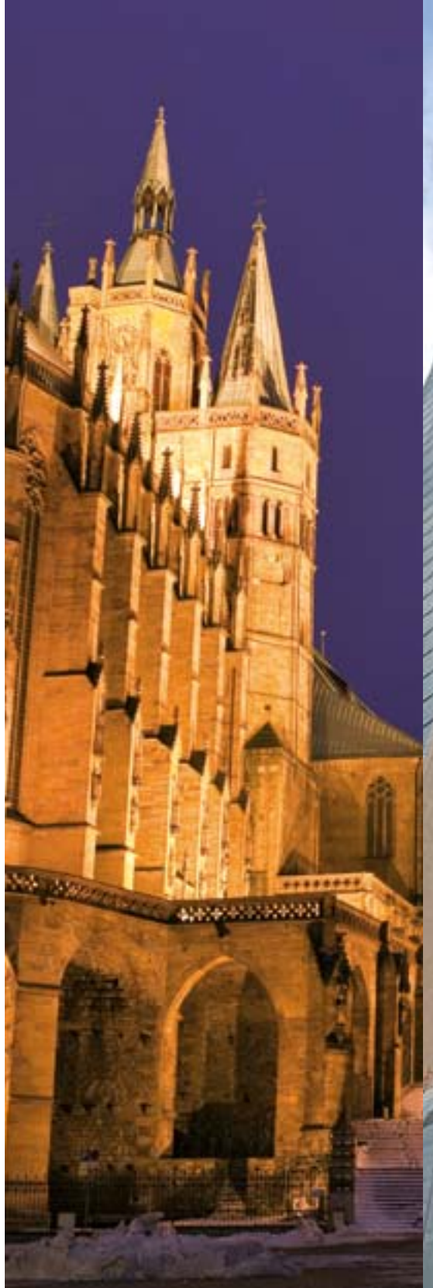
The biaxially oriented PET bottle was invented almost 40 years ago, and the polymer itself dates back to World War II. By most conventional measures, the PET packaging sector can be considered as "mature." And yet, as numerous articles in this issue of SIPA MAGAZINE testify, the level of innovation in PET bottle design, production and filling remains at an extraordinarily high level – or at least at SIPA it does. On the pages that follow, we describe how SIPA is bringing important new developments to the market in highly diverse aspects of technology and business. Three examples: new combinations of cap and neck that create weight savings even the developers themselves thought unattainable at the outset of the project; high-speed palletizing equipment that effectively bridges the gap between high- and low-output bottle filling lines; a new agreement with DHL, the world's largest distribution and logistics company, that will see the establishment of a network of strategically located hubs across the globe dedicated to distribution of spare parts.

SIPA recently passed the half-way point on a two-year journey it mapped out for itself back in September 2011. As I said in the last issue of SIPA MAGAZINE, SIPA is all about change, and as we follow our road map "Shape our Future", we are transforming ourselves into a more efficient, larger, and more successful company. We intend to be the global point of reference in PET container technologies. This is no idle talk: in the XFORM injection molding system that we introduced at the NPE plastics exhibition in April, SIPA already offers the most cost-effective way available for making PET bottle preforms in large volumes. We have across-the-board technologies for molding containers of all shapes and sizes, with linear or rotary reheat systems or with single-stage injection, stretch and blow. We have in-house capability that stretches all the way from pure research (at our newly-opened R&D centre in Luxembourg), via the design drawing board to the loaded pallet. In the coming months, we will extend our offering even further. SIPA is already in the process of introducing small, cost-efficient stretch-blow molding machines that lower the bar for new entrants, without compromising on quality. These machines will be built in China, and will be marketed principally in emerging markets. The company is increasing its capability in China in other areas too: we are optimizing its facilities for local production of SFL high-speed linear stretch-blow molding equipment in Hangzhou, and we are also significantly increasing mold-making capacity there.

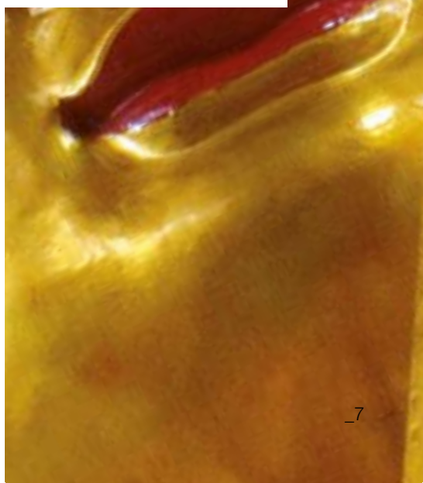
Of course, PET does not exist in a world of its own, and SIPA keeps a sharp eye on alternative materials and process technologies. This is not only to see how they may affect SIPA (and its customers and partners), but also to see how SIPA can affect them. We address a case in point in these pages: polypropylene. Together with leading additives producer Milliken, SIPA has been looking at how injection-stretch-blow molding technology can bring the best out of PP in niche applications. SIPA has also been developing an all-PET design of a water-cooler bottle as an alternative to polycarbonate. In both cases, the results look very interesting. So yes, PET packaging can be considered a mature sector. But SIPA has no intention of slowing down. Quite the opposite in fact.

Enrico Gribaudo
General Manager





AROUND THE GLOBE:
NEWS FROM THE DIFFERENT CONTINENTS



PREMIUM WATERS IS FIRST WITH NEW XFORM PREFORM INJECTION MOLDING MACHINE

Premium Waters, Inc.
Bottled water solutions

Long-time SIPA customer Premium Waters Inc. has scored another first with its acquisition of SIPA's brand-new top-of-the-line XFORM 500-tonne preform injection molding machine.
SIPA unveiled the XFORM, which accepts molds with up to 128 cavities from all top mold makers, earlier this year at the NPE plastics exhibition in Orlando, Florida.

THE REASONS FOR CHOOSING XFORM

Premium Waters executives checked it out then and there and put in an order soon after. "We were impressed with the technology and the robust build of the new machine," says Bernie Zarda. "We liked the energy efficiency numbers. In addition, we liked the fact we could use any of our existing molds with few modifications to react to volume changes." The unit has since been delivered, and will start up in October at the company's new state-of-the-art plant in Kansas City, Missouri, producing preforms for 500 ml bottles.

OVER 130 YEARS OF HISTORY

Premium Waters has been bottling water and quenching the thirst of customers for over 130 years - long before bottled water was all the rage. Back to 1870, Cilo Chesterman lent his brother-in-law $400 to start a bottling company. Fast

forward to 1994, when Chesterman Company purchased Kandiyohi Bottled Water Company, a distiller of purified bottled water, and adopted the name Premium Waters, Inc.

In the years around the new millennium, Premium Waters purchased several other water bottling companies. The company has bottled other beverages as well, but for the past several years, Premium Waters has focused on water. “We continue to improve our packaging and products to provide our customers the best value available!” says Bernie Zarda. Premium Waters brands now include Chippewa Spring Water - “as pure today as when we first tested it a century ago” – Nature’s Crystal and Glacier Clear spring and purified drinking waters, and Kandiyohi purified water with added minerals. However, Premium Waters is primarily a private label supplier.

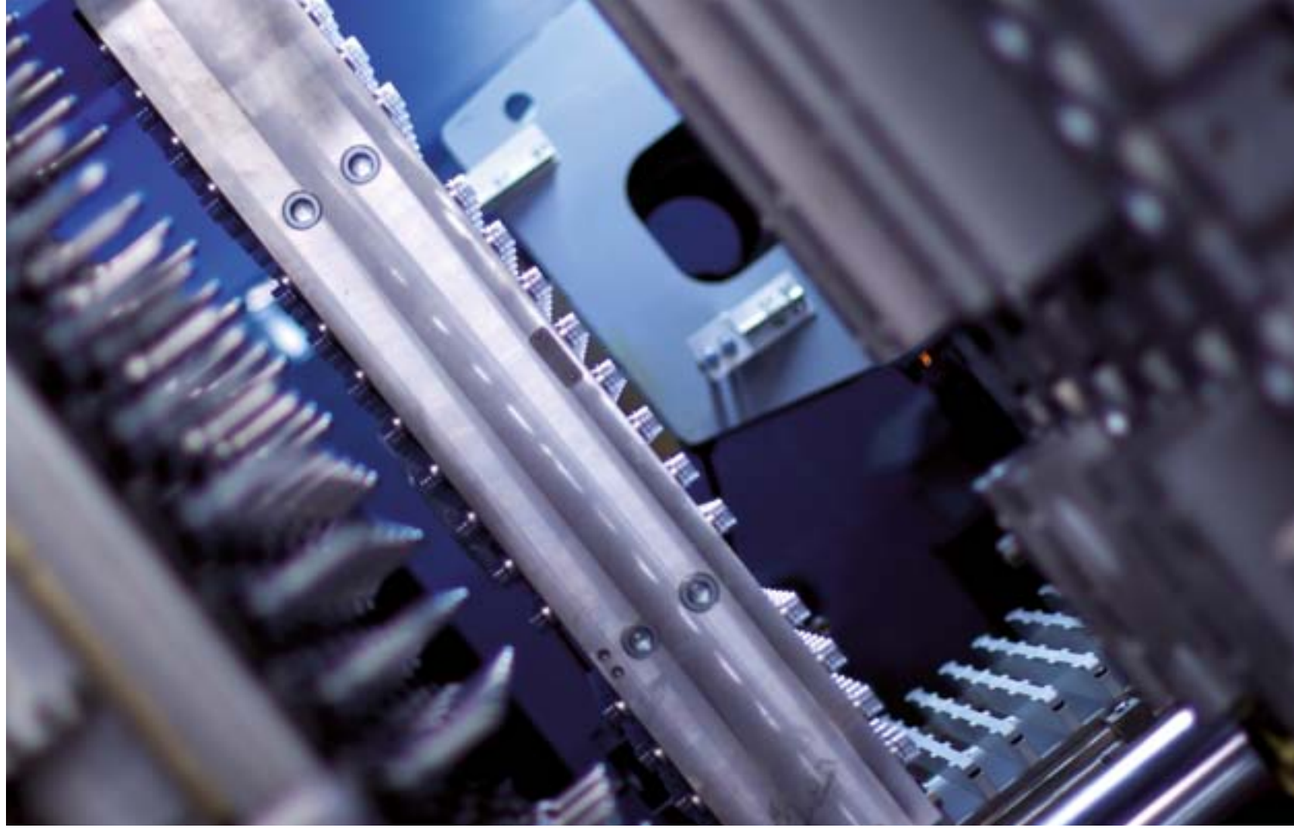
A LONG BUSINESS RELATIONSHIP

The company now has a total of 19 SIPA systems operating at its various facilities. These include four SFL linear stretch-blow molding units, four SFR rotary types, two PPS preform production systems with 72 cavities, and no fewer than eight ECS integrated injection-stretch-blow molding systems.

“Our mission is to succeed as a high quality, low cost bottled water supplier in the markets we serve by focusing on the customer, by driving out costs in everything that we do, and by not wavering in our drive for delivering the highest quality product at good margins,” says Greg Nemec, President of Premium Waters. Investing in the XFORM is the latest move by Premium Waters to meet those objectives.

The XFORM is now making preforms weighing just 8.9 g - Premium Water and SIPA have cooperated in the past on development of some of the lightest bottles on the market - at a rate of 55,000 preforms every hour. SIPA designed, built and installed a system that includes the basic machine with a sound-proof cabin, a 96-cavity mold with a four-position take-out plate, mold dehumidifier and PET dryer.

“The new XFORM machine has been designed for top level performance, it’s easy to use, and it is built to last,” says Marco Bottecchia SIPA N.A. President. “The unit for Premium Waters is equipped right now with a 96-cavity mold, but it’s so flexible that can accept an existing 72-cavity mold and other molds, not only from SIPA but also from competitors. And just like all other SIPA machines, it comes with the support of SIPA’s new and innovative global parts support system.”



SIPA CATERS FOR ARCA'S HIGHS AND LOWS

Over the last six years, one of South America's largest Coca-Cola brand bottling companies has been installing SIPA equipment at two sites to produce cold and hot-fill products in Ecuador. The project was made especially interesting for SIPA by the fact that the two sites are separated by an altitude of over nine thousand feet.

SIPA EQUIPMENT IN GUAYAQUIL AND QUITO

Arca Continental, which was formed last year through the merger of Embotelladoras Arca and Grupo Continental, now has SIPA equipment at its sites in Ecuador's largest city, Guayaquil on the Pacific coast, and in Quito, the world's second highest capital. In Guayaquil, Arca has two SIPA SFR 12 EVO rotary blow molding units, as well as a complete blowing and bottling line comprising an SFR 16 feeding an Isotronic Isobaric Volumetric Filling Monobloc with 120 filling

valves. The line produces three-liter Coca-Cola bottles at a rate of 17,500 bottles per hour, and 28,800 0.5 litres bottles per hour. Meanwhile, high above in Quito, there are now three stand-alone rotary blow molders - an SFR 8, an SFR 12 and an SFR 12 EVO. In addition to these, a second SFR 12 EVO configured for hot fill (HF) feeds a line producing hot- and cold-filled bottles using a SIPA Stillfill HR Gravity Filling Monobloc with 90 valves. The line fills bottles with juices (Pulpy-Jugo del Valle), tea, Dasani purified water, and Powerade. It can fill up to 32,000 bottles per hour in cold-fill and 24,000/hour in hot-fill.

COMPLETE PROJECT FROM PREFORM DEVELOPMENT TO END OF LINE

The project was particularly important for SIPA, as it involved the company taking responsibility for the complete development of the packaging. SIPA developed preforms in partnership with Peruvian converter San Miguel Industrias PET, for whom it supplied the complete 60-cavity preform injection mold for the program.
SIPA also supplied the complete product preparation unit taking care on all the process including pulps treatment, pasteurising and all batch blending units.
During the container development phase, the partners had to take into account some unusual

location-specific conditions. Because Arca's filling operations in Quito need to cater for customers on the coast, the atmospheric pressure difference could cause the bottles to deform between production and consumption if they were not designed properly. Needless to say, the bottles do not deform!

UNMATCHED FLEXIBILITY

Key advantages of SIPA's SFR units include their flexibility in use (due to such features as electrical heating for the molds), and the speed with which molds can be changed. On top of this, SIPA was able to engineer a complex filling line to fit into an extremely tight space. This required various visits by the partners to hot-filling operations at other existing SIPA customers in order to arrive at the best possible solution for Arca Continental's most special case.

Arca Continental produces and distributes non-alcoholic beverages under The Coca-Cola Company brand. It is the second-largest Coca-Cola bottler in Latin America and one of the largest in the world. Headquartered in Monterrey, the company serves more than 53 million consumers in Northern and Western Mexico, Ecuador and Northern Argentina.

WE PUT SOME QUESTIONS TO DIEGO YANEZ EGUEZ, OPERATIONS DIRECTOR AT ARCA:

What were your reasons for choosing SIPA?

When we started this project, we had a lot of questions about demand and the consumer reaction to hot fill products. We needed the maximum flexibility with the best cost. SIPA offered us a system solution with in-line blowing, to guarantee low cost, and the possibility to produce hot and cold products on the same line. Additionally, SIPA integrated all the equipment in the line, including machinery from other suppliers.

Can you explain how SIPA has worked/works with you as a strategic partner on development of bottles and preforms with high technology content?

SIPA is our principal partner in the development of plastic bottles. Our market requires speed and differentiation to bring a competitive advantage. SIPA develops containers with different sizes and necks according to our needs. They have the lowest weight, and SIPA has the best lead times.

TRADITION AND INNOVATION COME TOGETHER IN PET-VERPACKUNGEN

PET-Verpackungen GmbH Deutschland

German PET bottle maker PET-Verpackungen has a lot to live up to. SIPA blow molding machines are making its job that much easier.
Located in Großbreitenbach in the state of Thuringia, PET-Verpackungen is in the leading ranks of PET processors in Europe today. It has been operating for 15 years, which is not so long, but its heritage stretches back over more than four illustrious centuries. PET-Verpackungen is part of glass container maker Wiegand-Glas, and two members of the Wiegand family, Nikolaus and Oliver, are its Managing Directors.
Back in 1997, Wiegand-Glas realised that the packaging market had undergone a fundamental change with the successful launch of PET bottles, and it was determined to be involved in the growing trend. Wiegand-Glas stands for quality, flexibility and expertise, and those principles apply to its PET operations just as much as to its glass ones. Which is why, over the last six years, it has invested in no fewer than four of SIPA's SFL 6/6 six-cavity linear reheat blow molding machines. PET-Verpackungen started off making preforms on state-of-the-art injection molding equipment, before extending its expertise into blow molding in 2006. That is when it bought its first SIPA machine.
Extra units followed in 2010, 2011 and 2012, so the company is clearly on a roll.

A WIDE RANGE OF CONTAINERS

PET-Verpackungen now produces a very wide range of bottle and jar shapes and sizes, starting at 25 ml and reaching up to 1.5 litres.
The containers are sold into many markets, mostly in Wiegand's traditional base in food and drink, but also pharmaceuticals and other sectors.

SIPA SUPPORT

Speaking of SIPA support, PET-Verpackungen, Technical Director, Dipl.-Ing. Matthias Raab says: **"The co-operation with SIPA has been very successful for many years, especially in the area of product development and in the realization of new bottle designs. For PET-Verpackungen GmbH Deutschland it is very important to have a competent partner who is familiar with all processes in the area of PET container production and who has the knowledge of the complete processes from the resins through to the finished product. SIPA has also been a highly appreciated and reliable partner in after-sales."**

IN KUWAIT, SIPA SETS RECORDS FOR COCA-COLA

شركة المرطبات التجارية
Refreshment Trading Co.

Experience tells: Refreshment Trading Co. in Safat, Kuwait, has been Coca-Cola's exclusive bottling company in the country for 40 years; Refreshment Trading Co. also holds the world speed record for blowing 0.5 litres bottles on a rotary machine - 2200 bottles per hour per cavity. It goes without saying that the machine was built by SIPA.

COMPLETE LINE FOR ARWA MINERAL WATER

The SIPA SFR12 unit is combined with a Unitronic 70.12 filler and a "waterfall" Capstream capping section with two completely independent cap feeding systems for maximum efficiency, within a Sincro Bloc integrated system for high-speed blow molding, filling and capping. This is the main element of a complete line that SIPA installed last year. The line also labels, shrink-packs, wrap-around packs and then finally palletizes (using a Palletizer Genius PTF2, with double pack infeed, automatic pallet stacker/destacker and interlayer pad placing unit) Coca-Cola's Arwa water bottles. It has an output of 26,400 bottles per hour.
SIPA had total responsibility for the turnkey project, also supplying all conveyors, automation, controls and accessories of the line.

SPEED AND LIGHT-WEIGHT RECORDS

But the speed record is not the only one for Refreshment Trading Co. Indeed, the second record goes some way to explaining the first - the bottles weight

just 28 grams, and nobody in the Middle East makes a 1.5 litres bottle lighter than that.
Faster, lighter, cleaner - to add to the record books, the Unitronic filling unit has the highest level of hygiene in its category. This machine allocates a contactless electronic volumetric filling valve, with Ultraclean special features on the filling block, like a filtered air isolator plus hygienic treatment of both caps and preforms.
Refreshment Trading Co. uses the same line for total three sizes of Arwa Water - 0.33 litres, 0.5 litres and 1.5 litres. In all cases, the line runs at a rate of between 24,000 and 26,400 bottles per hour. The whole line is an extremely compact piece of equipment with a layout that provides easy access to critical components. The inherent flexibility of the line makes it possible to produce several different pack sizes (SKUs), with packaging ranging from film-only shrinkpacks to wraparound cartons. And as the operation at Refreshment Trading Co. clearly demonstrates, the line has the capability of producing and handling extremely light containers, with high quality results and low operational costs.

SATISFACTION CONFIRMATION

As a demonstration of its satisfaction with SIPA's total systems approach, Refreshment Trading Co. has just ordered the packaging equipment part, this time for Coca-Cola single serve bottles in glass. SIPA supply includes a palletizer model Genius PTF2, a depalletizer model Genius DS, all conveyor systems and bottle rinser.

DARIDA GIVES SIPA TOP MARKS

Belarus bottling company Darida has been using SIPA equipment since it began bottling operations for mineral water and soft drinks over 15 years ago - and it doesn't look as if it will stop any time soon. "One of the best European companies, which maintains the quality of its equipment and its brands," is how Darida General Director Vladimir Delendik describes SIPA.

Darida is located in Zhdanovichi, close to Minsk. It makes its own preforms and bottles for its various brands of water, as well as for carbonated and non-carbonated drinks. Preforms range in weight from 24 to 40 g, while bottle sizes start at 0.25 litres and go through to 5 litres.

SIPA EQUIPMENT AT DARIDA

Darida now has four SIPA SF and SFL linear blow molding machines, as well as two PPS preform units, the most recent addition being a PPS 72 Evo. These feed four automated bottling lines that provide an output of more than 15 million bottles per month.

"Darida has been in business since 1992, and operating its bottling operations successfully since 1997," says Delendik. "SIPA machines are reliable and easy to use, maintenance and service are operational and flexible. All this makes SIPA a reliable and stable partner, which is important for any manufacturer."

HIGH QUALITY ARTESIAN WELLS

Darida's first bottling plant was put into operation on May 23, 1997, taking advantage of the high quality of mineral water from a local artesian well that was bored for the first time that year. A second well, 266 meters deep, was bored two years later, and in 2001, a third, even deeper well - 387 meters - was opened up. There are now four wells at the Darida enterprise, between 52 and 410 m deep. The water is well protected from biological and chemical contamination and meets all relevant criteria regarding the content of main biologically essential macro and microelements.

Today, the Darida enterprise is a fully self-sufficient industrial complex. All stages of production (PET preforms and bottles as well as the caps, bottling, capping, labeling etc.) are carried out internally, allowing the company to exercise constant control over the quality of the raw materials and products, and to meet the strictest sanitary norms.

MORE THAN 50 TRADE NAMES IN PORTFOLIO

With its consistent use of modern equipment, Darida is well positioned to produce a wide range of products and respond quickly to changes in customer demand. The company currently counts more than 50 different trade names in its portfolio of mineral water, drinking water, carbonated and non-carbonated drinks.

Darida brands are widely known, not only in Belarus but also in neighboring countries in the Russian Federation and the European Union. The company says that thanks to its high quality, Darida is appreciated by the most demanding customers in Europe.

ENERGY CONSCIOUS PRODUCTION WITH SINCRO BLOC AT PERMANIS

Permanis Sdn Bhd had launched a RM40 million state-of-the-art bottling line in Bangi, Selangor to complement the six carbonated soft-drink lines. The new line was to cope with the growing demand for its popular carbonated soft drinks, which include Pepsi, Mountain Dew, 7UP, Mirinda and Revive Isotonic.

Permanis CEO Erwin Selvarajah said the new SIPA line would help Permanis build up an additional annual turnover of RM150mil for the next few years and allow the company to capture a bigger share of the soft drink market. "The new system not only aims to meet the growing demand for our drinks but to also show our commitment in continuously providing a complete and world-class beverage solution," said Erwin.

NEW SIPA SINCRO BLOC LINE WITH A "GREEN" APPROACH

This new line includes also SIPA's Sincro Bloc integrated system for blowing, filling and capping bottles. Sincro Bloc has been developed and produced with the highest technological standards, reflecting an intrinsic "green"-oriented concept geared towards helping the user mini-

mize their carbon footprint.
That is why SIPA recently installed a Sincro Bloc at the Permanis plant in Bangi, in the Malaysian state of Selangor, together with a mass blender for preparing concentrates for various PepsiCo brand drinks.
The Sincro Bloc's state-of-the art solution provides numerous tangible and relevant savings in energy, water and compressed air, starting with the SIPA rotary blowmolder SFR EVO. This has significant energy saving features that include: a new oven design that runs at lower temperatures and uses around 15% less heating energy; quick process set-up; and very effective preform neck and bottle base cooling.
In addition to this, the patented ARS Plus, for the recovery of blowing compressed air, allows for a total saving of air up to 50% compared to traditional blowing stations. This also makes it possible to reduce the size of the compressor.
With filling taking place directly after blowing, there is no need for air conveyors, providing savings in energy consumption of around 50 kW/h. Furthermore this configuration needs no rins-

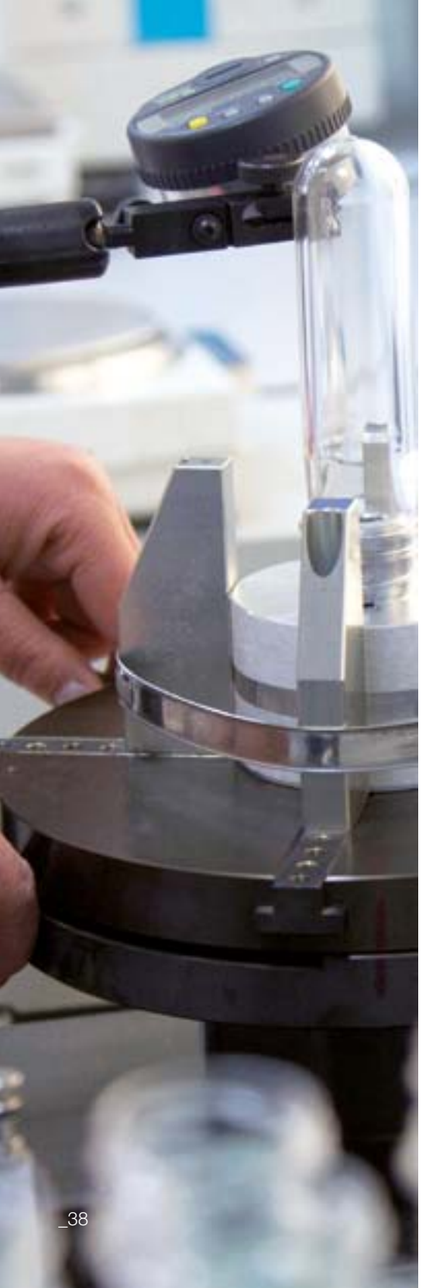
AROUND THE GLOBE - MALAYSIA

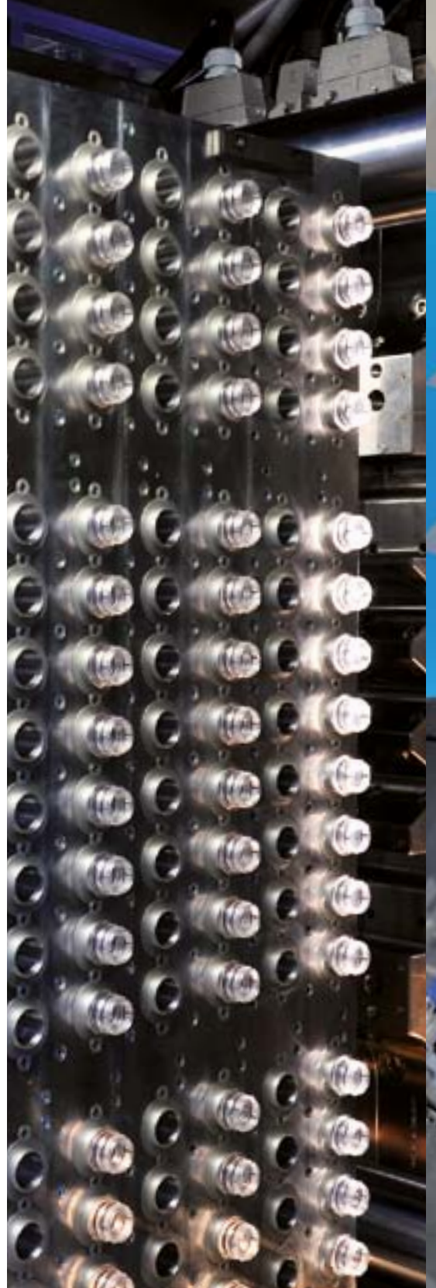
er, providing additional significant water savings of approximately 3600 litres/hour.
Another main advantage of the Sincro Bloc is its ability to produce lighter containers than a traditional line, thanks to the reduced mechanical stress put on the empty containers during their transport from blower to filler.
SIPA's Isotronic electronic filler makes it possible to fill Carbonated Soft Drinks (CSDs, such as Pepsi Cola or Mountain Dew) at 18°C rather than the tradition temperature of 12°C, providing a major impact on energy reduction (for one thing, cooling of the product is not needed) of approx. 60 kW/h.
All told, you could say that thanks to the partnership between Permanis and SIPA, the world is a little greener than it was!

NEXT YEAR PERMANIS WILL CELEBRATE ITS 40TH ANNIVERSARY

Permanis Sdn Bhd was founded in 1973 and is primarily involved in the manufacturing, distribution and marketing of beverages under a franchise agreement with PepsiCo for Malaysia. The company also makes its own range of beverages, which it markets under various trademarks such as Chill, Excel, Frost and Bleu. It is part of Asahi Group Holdings Lid, Japan.
Permanis is one of Malaysia's leading beverage manufacturers and has a comprehensive network to distribute products throughout Malaysia.
It is present in most segments in the beverage industry, including CSDs, Isotonic drinks, ready-to-drink coffee and tea, juices, energy drinks, and mineral water.
The company says it also plans to penetrate new and growing segments in the future.
It is certified to the ISO 9001:2008 Quality Management System standard.

Nathan – Permanis' Senior Vice President – Supply Chain





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THE START OF A NEW ERA

SIPA is on a journey that began in September 2011 when it drew up a new "road map" for future growth and success. That journey has already led to the introduction of four new important products, some of which have been covered in previous issues of the SIPA Magazine, and some of which are introduced here.
In just over a year, SIPA has introduced:

- **XFORM for high-output, cost-effective preform production**
- **SFL two-stage technology for wide-mouth containers**
- **High speed palletizing units**

These new products, and those that will follow in the coming months, such as the StartBlow range aimed at emerging markets (see box), are helping us transform SIPA. To use the jargon of the IT world, we are creating SIPA 2.0.
It is more than just new products though. The road map we have drawn up is very ambitious, affecting as it does all the strategic areas of the company.

PACKAGING DEVELOPMENT

SIPA is already recognized by the market as a highly experienced and innovative partner in the development and engineering of rigid packaging. Thanks to our extensive product range, which includes equipment for production of preforms as well as single-stage injection-stretch-blow molding systems, it is the only supplier on the market that can boast an experience that collects together, under a single roof, all of the following elements:

Injection expertise
- Preform design
- Light-weighting (body & neck)
- Preform prototyping

Blowing expertise
- Bottle design
- Packaging development
- Prototyping services

Manufacturing capabilities
- Injection and blowing mold engineering
- In-house mold manufacturing

SIPA continues to strengthen and enhance its packaging design and engineering capability at its headquarters and principal manufacturing facility in Italy.
In addition, it has recently opened an R&D center in Luxembourg for the development of new technologies. This is a center for pure, advanced research.

SIPA ADVANCE ENGINEERING IN LUXEMBURG

SIPA has just opened a new subsidiary in Luxembourg whose main activities will be advance engineering works and technical sales support. The choice of Luxembourg has been quite natural for those types of activities since Luxembourg enjoys a very skilled work force, which usually is multicultural and multilingual at the same time. This step is then going to help SIPA to continue its move towards a true international company with different hubs around the world.

The main goal of the group of advance engineering will be to translate future customers' needs into new injection molding and/or blow molding concepts.
In order to do so, SIPA will be required to properly capture the future customers' expectations and anticipate their needs. SIPA will also be called to develop a strong ability in technology scouting so that interesting technologies developed for other industrial fields may be transferred and valorized in the PET world.
As far as the technical sales support activity is concerned, it is envisioned to support the development of the SIPA injection and blowing business in France, Benelux and Germany from Luxembourg since this location makes it much easier from a logistic point of view. This plan should also allow SIPA to provide a better service to customers of these regions since customers will benefit from the support of a dedicated group of technically skilled experts who are going to work hand in hand with the SIPA sales force.

MOLD MAKING

SIPA is among the three largest producers of molds for PET preforms and containers in the world, with three manufacturing plants, in Italy, China, and Mexico. Now, the operation in China is being made the subject of a significant investment that is leading to an increase in mold production capacity as well as a restructuring of the assembly line for linear blow molding equipment.
€3.5m is being put into reconstruction and development purposes at the facility. The primary aim is to increase output by 60% in mold manufacturing and also to optimise the assembly of the linear blow molding machines.
The manufacturing operation is undergoing significant changes. The foundations of the bay housing the machine tools are being massively reinforced, for example, to ensure die plates are machined to tighter tolerances than ever. The majority of the processing machines have been linked together to shorten production paths, and the continuous assembly of the linear stretch-blow moulding machines has been sited at the far end of the bay to facilitate just in time delivery.

Thanks to the new investments in mold-making equipment, SIPA Machinery Hangzhou (SMH) is now in a position to offer the best solutions to the highly competitive Chinese marketplace. The totally renewed workshop and the new 'lean' procedures in manufacturing are allowing the company to provide customers with a very high quality product with an improved delivery time.

Our aim is to provide sustainable, flexible, easy and safe manufacturing equipment, together with innovative packaging solutions, to help our customers grow in this fast-changing market. On the manufacturing side, SIPA is boosting its capability to produce, in China, linear stretch blow-molding machines that are already considered the premium references in the market.

SIPA Start Blow

SIPA is getting ready to launch StartBlow, a machine designed specifically to enable companies in emerging markets to put their first steps on the stretch-blow molding ladder.
Customers will be able to start up production of bottles in a matter of hours after the machine arrives in their plant. It will be easy to set up, easy to use - and easy on the pocket.
On top of that, delivery times will be very short, in most cases no more than around 45 days.
SIPA will produce the StartBlow in China, and it will conform to the company's high technical standards, even though it will be an entry-level machine.
There will be two models, with two and four cavities respectively, capable of producing bottles at output speed from 2,000 up to 6,000 b/h. Both models will be fully electric, with servo drives governing principal movements.
More details on this new development will be published in the next SIPA Magazine.

PRODUCT RANGE

Our goal is to position all SIPA products at the top end of the global market, offering innovative solutions and addressing the real needs of our customers.
We intend to revolutionize the SIPA product portfolio, focusing more than ever on the real needs of customers, not on "sound bites."
Some examples: XFORM, which SIPA introduced at the NPE plastics exhibition in Orlando, Florida, earlier this year, is not the fastest machine in the world for making preforms - but it is without doubt the machine that produces preforms at the lowest cost. The SFL series of linear

blow molding equipment offers a unique process flexibility.
The new StartBlow linear blow molding model is the ideal machine for the needs of those who intend to produce in an efficient manner from the outset, with a sustainable investment.
The renewal process includes all product areas: production of preforms and bottles as well as solutions for the supply of complete lines, with a special focus on solutions for filling and end-of-line.
Already, in order to cater for the increase in demand for SIPA products, the production area at SIPA in Vittorio Veneto has been increased by 10,400 m2.

New opening of SIPA South Africa in Cape Town, staffed by a local sales manager and service manager as well as a team of technicians to service customers in the region.

SERVICE

SIPA customers already value the company, not only for its equipment but also for its back-up services. In recent months, SIPA has made several important moves to improve these services. These include:

- overall strengthening of the service with greater internationalization;
- the opening of SIPA South Africa in Cape Town, staffed by a local sales manager and service manager as well as a team of technicians to service customers in the region;
- an important global collaborative agreement with DHL, the world's largest distribution and logistics company, under which SIPA plans to set up six strategically located hubs across the globe, dedicated to distribution of spare parts.

In September 2013, SIPA will be at the Drinktec in Munich, the world's leading trade fair for the beverage industry. We invite you to visit our stand there, and see some truly innovative - even revolutionary - solutions that we will have introduced since we started on our journey just two years earlier.

SIPA PARTNERS WITH DHL IN MAJOR UPGRADE OF GLOBAL CUSTOMER LOGISTICAL SUPPORT

PET container producers and fillers operating SIPA machinery and equipment around the world are about to get a major upgrade in their logistical support.

In a collaborative project with DHL, the world's largest distribution and logistics company, SIPA plans to set up six strategically located hubs across the globe, dedicated to distribution of spare parts. The hubs will form a fully integrated network to ensure extremely fast, punctual and reliable delivery to customers in every country where we are present.

This initiative is the latest demonstration of our commitment to put the customer at the core of our business. It's all about giving value to our customers."

DHL Supply Chain Italy's headquarters in Peschiera Borromeo, close to Milan's Linate airport, will act as the main EMEA (Europe, Middle East and Africa) hub and distribution centre of an innovative global network linked to five other centres that will be completed this coming autumn/winter. DHL Supply Chain will provide SIPA with integrated management of an inventory, 24 hours a day, in real time. EveryTime-EveryWhere is the name given to the nerve centre of the new global spare parts management system, recently established in Vittorio Veneto. From here, DHL Supply Chain Services Italy will supply Warehouse Management services - management and execution of orders, accurate "kitting" of parts, and efficient management of distribution logistics. These will be controlled and monitored, for the first time, through a unique information system that allows management of all logistical and distribution processes, integrated at a global level.

TECHNICAL WINDOW ON SIPA PRODUCT PORTFOLIO: LATEST DEVELOPMENTS

HOT-FILL WITH AND WITHOUTH PULP, COLD-FILL AND CSD, ALL ON THE SAME LINE. IT'S POSSIBLE WITH SIPA

Around the world, there is an increasing market demand for juices containing fruit pulps, which are usually hot-filled.
One of the advantages of using SIPA bottle filling technology is that it is possible, on the same line, to carry out hot-fill for such pulp-containing drinks, as well as more conventional cold-filled carbonated soft drinks, CSDs.
This inherent flexibility makes SIPA equipment an especially interesting proposition in young markets where the success of these relatively new types of drinks cannot be guaranteed. So if a bottler has less than total success with hot-filled drinks, they have a built-in fall-back position that comes at no extra cost.

PULPY JUICES FILLING AND DOSING

SIPA also offers flexibility in how to put the pulp into the drink. Two systems are available, single-stream and double-stream. With double-stream technology, the juice and the pulp are dosed separately into the bottle, in two separate filling sections in a variant of the SIPA Sincro TriBloc unit (normally used for blowing, labelling and filling, but which here has the labelling station replaced by a piston filler).
With single-stream, pulp and juice are mixed together away from the line, eliminating the need for on-line dosing of the pulp.
SIPA offers a pulp dosing technology that has already proven itself in the food and beverage industry in a wide range of applications.
The technology differs significantly from conventional plug-type fillers in three key aspects :

- reduction of seals and crevices thanks to the special design for improved cleanability;
- a unique self-draining design, achieved through a vertically actuated valve concept;
- the unmatched simplicity and reliability of the total concept.

This combination of special properties creates a set of key advantages for dosing small volumes of fruit pulp:

- unmatched fill precision;
- gentle product handling, with minimum maceration of the pulp;
- fully automatic CIP without fill station disassembly;
- fully automatic product changeover without fill station disassembly;
- capability to fill at up to 95°C product temperature;
- minimum product dwell time in the filler prior to dosing, for optimal product quality.

For single-stream dosing, SIPA offers a full range of gravimetric, volumetric and isobaric filllling systems, capable of handling still and carbonated soft drinks, juices and hot filled products.

HOT & COLD FILL WITH THE SAME FILLING VALVES

Isotronic (electronic volumetric filler for carbonated products) and **Unitronic** (electronic volumetric filler for still products) are capable of handling hot-fill and cold-fill, including CSD (isotronic) without the need for any change of components; all the ancillaries equipments, starting from the syrup room to the product pasteurizer and the "massblend" (mixer and carbonator) are fully integrated in the turn-key SIPA system.

QUICK AND EASY FINE TUNING

SIPA's philosophy of building flexibility into its systems has already led to the introduction, in its SFR range of rotary stretch-blowmolding machines, of several important innovations. Servo-electric drives for stretch rods, for example, facilitate adjustment of machine settings when changing container formats, while also providing improved fine-tuning in process control - a basic requirement for processors who have frequent format changes.
Also in the blowing phase, the introduction of electrically heated molds allows for several advantages: the elimination of oil and its potential leaks makes the process cleaner, control of thermal profiles is more precise, start-up times are shorter, and energy consumption is reduced.

SIPA'S NEW PALLETIZER BRIDGES THE SPEED GAP

SIPA's range of Genius PTF "steady-pallet" palletizing units has just been given a shot of adrenaline. Until now, bottling companies running at anything about medium output rates have been obliged to use moving-pallet units for palletizing packs But SIPA's latest design, the Genius PTF V, with its new twin-platform configuration, can palletize at speeds of up to 420 layers per hour, making it suitable for medium-speed and even some high-speed lines.

Conceived using the same design philosophy behind SIPA's original Genius PTF palletizing innovations introduced in 2011, the Genius PTF V integrates perfectly with SIPA's Fastlayer robotic layer preparation units, with their active pack orientation and arrangement capabilities.

SIPA's palletizer for high speed lines was engineered using a moving pallet solution with high level infeed. But some users prefer the single-storey steady-pallet configuration for its more compact design, higher cost-effectiveness, and improved operator-friendliness. The downside until now has been that these types of palletizers have covered only the low-to-medium speed end of the market, operating at up to a maximum of 320 layers per hour.

With its new twin-platform design, the Genius PTF V breaks the speed barrier, by carrying out two separate operations simultaneously rather than sequentially, and cutting out any waiting time. While the first platform is picking up and compacting a just-prepared layer of packs from the Fastlayer unit, the second platform is busy depositing the previous layer on the pallet, and then returning to receive the new layer.

The laying-down of layer separation pads is carried out by a new high-speed pad-placing device, which runs fifty percent faster than the previous

TECHNICAL WINDOW - PALLETIZER

version. It complements such features introduced last year as the cross-sectional frame hardening that eliminates lateral oscillations that normally occur at high operating speeds; toothed belts instead of metal chains for higher speed and efficiency, lower maintenance and noise; and built-in upgradability via installation of different types of belt drives. It also features layer side guides with speed-up movements, as well as composite rollers with increased cross sections on main head for better bending resistance.

The Genius PTF V uses a halving platform/head suitable for pallet layers made up of shrink-wrap packs, cartons and plastic crates. The platform is in two halves that move apart once it is in position over the pallet, allowing the new layer to drop into position. It accepts pallets up to 1200 by 1200 mm.

"The concept behind the Genius PTF V is not new in itself," says the SIPA Filling Lines Sales Manager, Federico Zannier "but the speed at which we have got it to run at certainly is. SIPA is the leader in steady-pallet palletiser now!"

ROBBY RACK ROBOTS HANDLE ALL SORTS OF LARGE RETURNABLE BOTTLES

Readers of SIPA MAGAZINE will already know about SIPA's overall expertise in conception, production and installation of complete lines for producing large PET containers.
Last November, we described how the company goes from pellet to pallet with products as large as 40 liters and even beyond.

ANTHROPOMORPHIC GRIPPING HEADS

Such large containers are valuable, which is why a relatively high proportion of them are used many times over. SIPA has a robotic system called ROBBY RACK designed for racking bottles in readiness for washing and refilling large bottles. It's fast, it's flexible, and it's secure.

SIPA has built up many years of experience in packaging robotics. It has developed and put into practice new hardware and software designed to satisfy the most diverse demands of the packaging world, providing innovative and reliable solutions such as anthropomorphic gripping heads for moving large containers into various kind of racks and pallets.

PALLETISING AND DEPALLETISING ALL IN ONE

These modular robots can carry out palletising and depalletising cycles, as well as combinations of the two. ROBBY RACK installations are operational in several packaging plants, running at production outputs of up to 500 cycles/h and a maximum speed of 2,600 bottles/h.
With its flexible, multiple-axis manoeuvrability, the ROBBY RACK can adapt itself to the architectural and spatial constraints of widely differing operational areas, arrying out complex manipulations adapted to each bottle size and shape, as well as production output.

AN IMPORTANT PARTNERSHIP

The ROBBY RACK is the result of a technical partnership with Fanuc, one of the largest and most successful producers of industrial robots in the world, and whose units form the basis of this application. The robot used by SIPA for manipulating five-gallon bottles is an anthropomor-

phic six-axis type. It is equipped with a latest-generation control system that incorporates various "smart" functions such as torque control, identification of the load at the wrist, and numerous others. Maintenance is limited to virtually nothing more than replacing data-saving batteries on each motor once a year and checking oil levels in gear units every six months.

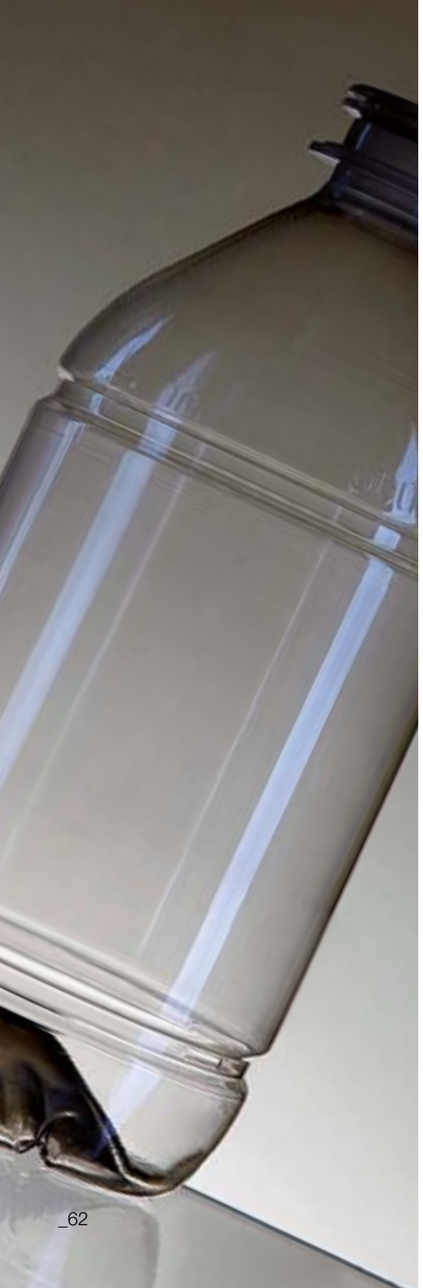
MAXIMUM FLEXIBILITY IN SIZE CHANGE

The gripping heads have been designed with a quick-change system that saves important time when the bottle size changes: the procedure takes no more than two minutes.
SIPA has been able to produce a very compact, modular head, with several gripping points, that is light but also rigid.
This means that, on the one hand, it can resist the impact resulting from the use of damaged racks.
This approach also allows maximum flexibility for future applications of the system: different heads can be added at a later stage to meet the customer's new requirements without having to totally transform the system.
Over the 12 years that SIPA has been developing and installing robotic solutions like this, the company has produced a wide range of heads, for example:

- heads with up to ten grippers for racking standard round bottles;
- combination gripping heads for racking triangular bottles and round bottles;
- a gripping head for racking integrated with an interlayer application device;
- head with up to nine grippers for the deracking cycle;
- special gripping heads for combined racking/deracking cycles.

SIPA has also built up valuable experience in the use of these heads with different types of rack, metallic, plastic, and so on.

TECHNICAL WINDOW - ROBBY RACK

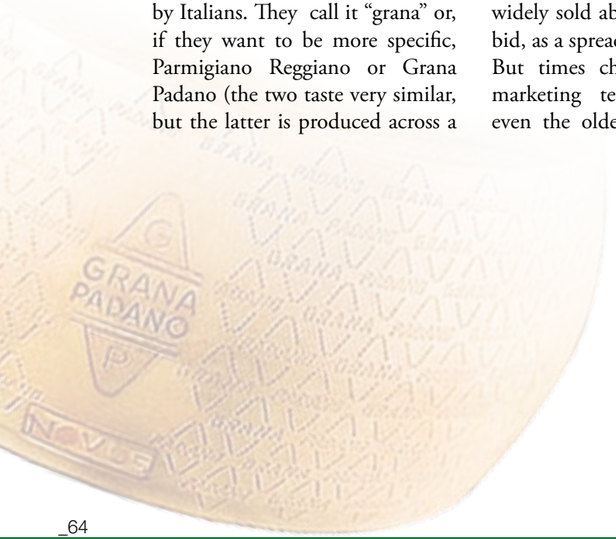


PETWORK: CONCEPT, DESIGN, ENGINEERING. WHAT'S NEW IN PACKAGING WORLD

HOW SIPA GIVES CHEESE THE "BELLA FIGURA"

Italy is the home of great traditions, and one of the greatest traditions is its cheeses. We are all familiar with those big wheels of Parmesan - which is actually an informal collective term not used by Italians. They call it "grana" or, if they want to be more specific, Parmigiano Reggiano or Grana Padano (the two taste very similar, but the latter is produced across a broader area of northern Italy).
Traditionally, Italians buy their grana in wedges roughly cut from the wheel. Older people frown on the idea of it being sold in any other way, such as the pre-grated form widely sold abroad or, heaven forbid, as a spreadable paste.
But times change, and modern marketing techniques come to even the oldest of products. On top of that, a major earthquake in the Emilia Romagna region last May hit many buildings where the cheeses were maturing, cracking open countless wheels.
One major producer of Grana Padano decided to look at the idea of selling its product in jars. And it turned to SIPA to help it.
Nothing could provide a clearer demonstration of SIPA's strength, not only in PET processing technologies, but in container design as well, and its ability to take an initial - and in this case most unusual - idea from a client, and rapidly turn it into a tantalising reality.
SIPA worked with the cheese maker to come up with a concept that perfectly combines form and function, and in more senses than one preserves what Italians call the "bella figura" - literally "beautiful figure" but metaphorically "good impression." Because what SIPA proposed was a wide-mouthed jar, with easy access to the contents, and which, with the lid on, is highly evocative of the original wheel of cheese in its rounded shape. Even the decoration echoes the branding on the original.

Buon appetito!



SIPA DESIGNS LIGHTWEIGHT GIANT WATER BOTTLES WITH SIMPLE-TO-RECYCLE HANDLES

The U.S. market for five-gallon (19 liter) water cooler bottles is in a state of upheaval. A long time ago, the bottles were all made out of glass, but then in the 1980s, when it became possible to extrusion blow mold polycarbonate (PC), everything changed. Polycarbonate presented the excellent mechanical resistance necessary for such large containers that had to carry a pretty heavy weight - five gallons of water weighs almost 42 pounds, of 19 kilograms. Polycarbonate has excellent clarity of course, and the bottles themselves were much lighter than glass ones. The new material swept the board. However, over the last few years, there has been a very public debate about the possible health risks from residual bisphenol A (BPA) in polycarbonate bottles of all sizes - small baby bottles in particular, but also large water bottles. BPA is now banned in baby bottles in North America and in Europe.

Not surprisingly, many producers of five-gallon water bottles are now looking for BPA-free alternatives to PC (even though there is no legal requirement yet for them to do so). PET is one of these possible alternatives, and in fact some five-gallon bottles made in PET have been on the market for several years now.

The challenge, as in many other applications, is to be able to produce the lightest possible container while ensuring optimum mechanical performance. It's one that SIPA decided to accept several months ago. SIPA set out, not only to develop a lighter container, but one with an embedded handle for a better functionality.

The starting point was a 690 g container with a polypropylene handle that is already on the market in the USA. Work goes on, but already, SIPA has been able to take 25 g off the total weight. SIPA developed a preform with a lightweight neck and base, and added material in the area of the body where the handle is attached during the blow molding process - and which therefore needs to be more mechanically resistant than elsewhere in the body. The new version has a special PET handle in place of the polypropylene one, so when the time comes for recycling, there is no need to separate the two parts, simplifying the procedure and cutting costs.

The new design is suitable for production on a SIPA SFL 2/2 two-cavity linear stretch-blow molding system. Trials have shown that output rates of 250 bottles per hour, per cavity are possible - around three times as much as achieved with polycarbonate bottles, providing a further cost saving.

SACMI AND SIPA COLLABORATE IN S.U.P.E.R. PET PREFORM AND CLOSURE PROJECT

SIPA has collaborated with Sacmi, another of Italy's most innovative companies operating in the packaging sector, in the development of a new solution in the combination of PET preforms and closures that provides advantages for processors and end-users alike.

The collaboration combines SIPA's substantial experience in the development of preforms, with that of Sacmi in caps and closures. Sacmi, based in Imola, made its name in the packaging world with highly innovative high-speed fully automatic compression moulding technology.

The two companies put together a combined development team incorporating a level of technical competence considered unrivalled anywhere in the world.

The fruit of this collaboration is a new solution, featuring a special combination of preform neck finish and lightweighted caps, that solves several key problems associated with the operation of a cap on the neck of a PET bottle.

This innovative solution has been given the acronym S.U.P.E.R., which stands for Sustainable, Unique, Productive, Easy, and Reliable - the five key benefits

that it provides:

- **Sustainable**, because the closure is lighter than the average of alternatives on the market today, reducing the processor's consumption of raw materials and energy;
- **Unique**, because this is a proprietary solution, protected by patents, that will provide bene fits exclusive to those who adopt it;
- **Productive**, because it reduces the time and cost of equipping production lines - when switching between containers for various types of products, including water, soft drinks, and aseptically filled drinks, very little modification is required to lines for either preforms or closures (the latter produced with SACMI's compression process, which already offers reduced tooling times as well as high production speed);
- **Easy**, because the solution provides the consumer with a bottle that is easy to open. The guaranteed positive LB angle - the leak angle is greater than the bridge-break angle, a feature not available on the market today with current closure solutions - gives the perception of a closure that is very easy to open;
- **Reliable**, because the special tamper evidence system provides an immediate breakage of the security strip, rendering the bottle secure, with no risk of blow-off.

At this point in the history of PET preform design, the two most effective ways of lightweighting are to remove material from either the base or the neck, since there is little more that can be done to reduce wall thickness along the length of the body. SIPA recently took an important step forward in base design when it signed an agreement with Concordia Development in Milan to use Concordia's Cappello preform base design - currently the most efficient preform base lightweighting solution on the market - in preform molds. The S.U.P.E.R. solution now provides similar savings in the neck area and in the closure. Together, the SIPA and Sacmi experts have developed two new neck designs, the 29/25 Super and the 26/22 Super. Both feature a single thread development and a slot for gas venting, and both are equally suitable for bottles intended for carbonated and still products.

The 29/25 neck design weighs just 2.45 g, which is 34% lighter than a Corvaglia 28 mm PCO design, and 37% less than a 30/25 Novembal. At only 2.0 g, the 26/22 Super is 46% lighter than the Corvaglia.

Closures for the new necks have been optimized in every detail - base design, tamper - evidence band, grip, and functionality, as well as in basic dimensions.

As a result, the version for the 29/25 weighs 1.7 g, which is almost 13% lighter than the 30/25 Novembal cap.

SIPA has always been at the forefront of packaging lightweighting, with major patented innovations in neck and body weight.

We know that an extremely lightweight container-cap combination must have a dedicated design taking into account numerous factors - not always complementary to one another - relating to production and transport issues, as well as to final customer needs.

Consumers, for example, are increasingly aware of the amounts of packaging waste society creates, but they also put a high priority on product safety, and they distrust packaging that doesn't feel robust enough.

So we knew we had a challenge on our hands to go beyond the advanced stage we had already reached. Together with Sacmi, we have met the challenge head-on - and won!

HIGH-CLARITY CONTAINERS IN OPP

Polypropylene is increasingly seen as a possible alternative to PET for some blow-molded packaging applications.
Its good thermal properties make it especially interesting for hot fill applications, while its excellent chemical resistance also makes it an interesting proposition for chemical packaging.
The polymer does have some drawbacks, however.
Its barrier properties are quite poor (so PP monolayer bottles cannot be used for carbonated drinks) and finished containers traditionally have a milky (not fully transparent) aspect.

This latter problem is due to the semi-crystalline nature of polypropylene. So-called spherulites in the polymer have diameters very close to the wavelength of visible light, creating appreciable levels of haze.
The problem can be reduced by modifying processing conditions - stretch-blow molded PP containers are less hazy than blow molded ones for example - and also through the use of additives.
A few months ago, SIPA got together with Milliken, a leading additive supplier, to test one of Milliken's latest developments, Millad NX 8000, a so-called "clarifier," whose function is to modify the crystallization behaviour of polypropylene, create smaller spherulites, and reduce haze levels close to, if not equal to, those of PET containers.
Millad NX 8000 is already used in PP grades intended for injection molding and extrusion blow molding, where it provides clarity never before achievable with other clarifiers.
Milliken says Millad NX8000 supports a broad range of applications, including food storage, home storage, appliances, baby bottles, water bottles, cosmetic bottles and jars, media packaging, office supplies and blister packaging.
Together, the two companies tested three different sizes of containers a 250 ml bottle with a 28 mm neck, and 500 and 600 ml bottles with 38 mm necks, all intended to hot-filling at 95 - 100°C.
The results were very encouraging. The joint development with Milliken enabled SIPA to gather valuable information on PP processing, which can now be used in industrial projects the company works on with customers working in this interesting area.

PETWORK - OPP

ITALIAN CRAFTSMANSHIP, TRADITION AND FUTURE.

What good things spring to mind when you think of Italy? It does seem to depend on your chromosomes. Armani, Dolce & Gabbana, Prada, Ferrari, Ducati? Or cappucino, icecream, Parmesan cheese, pizza? Two very different sides of the same coin.
Or maybe not.
One thing that links all these things together, and makes them all so good, is craftmanship. Or as the Italians would say, "artigianato."
Italy may well be an industrial power - and of course it is the world's third largest producer of plastics processing equipment (and the second largest exporter) - but Italians are happiest when they are working with their hands.

Italy, an amazing blend of tradition, craftsmanship and innovation. If you want to choose an Italian product that draws on a long tradition and that still combines design and innovation, you are spoilt for choice.
SIPA has chosen, for correspondence with its customers, two prestigious brands that admirably represent the synthesis between tradition and future.

PRESTIGE HAND-MADE PAPER

The art of papermaking started in Italy in the second half of the 13th century in Fabriano, a little town in the eastern Marche region. The growing ability of the increasingly numerous and qualified artisans in Fabriano allowed them to make a real leap in terms of quality. Three innovations in particular led to the rise of Fabriano as the cradle of modern papermaking:
Paper Watermarking, which allowed for the insertion of distinctive marks that can be seen against the light;
The invention of the hammer mill, which replaced the stone mortar and the manual wooden beater used by the Arabs, yielding more homogenous fibres;
Finally, the use of animal gelatine for surface sizing, allowing for better writing and eliminating the problem of the rapid deterioration of paper.
The importance and diffusion of papermaking reached a crescendo during the Renaissance. This is proven both by the many documents from that period that have remained through to this day, and by the use of a great many watermarks at the time. Many of these can be found in the letters of some of the great artists of the period, such as Michelangelo Buonarroti.
Fabriano is one of the few towns in the world where paper is still made by hand, true testimony to a desire not to sever the ties with a centuries-old tradition.
The paper used by SIPA is called Secolo XIII - 13th Century. This is exactly the same as the paper kept in the archives of the town of Fabriano. This paper is still made by hand, sheet by sheet, as the "Mastri Chartai Fabrianesi" - the Master Paper Makers of Fabriano - used to do 800 years ago. It has 100% cotton content and gelatine surface sizing.
The sheets and also the envelopes have deckled edges, and in the sheets the watermark incorporates a six-pointed star mark as well as the brand name "FABRIANO - SECOLO XIII".

VISCONTI PENS - THE WRITING RENAISSANCE

Florentine pen maker Visconti is actually a relatively young company. It was founded in 1988, but the name has quickly become synonymous with writing instruments of extraordinary beauty, historic and technological refinement. Here in a 15th century villa, it is almost as if the Renaissance in Florence is still at its liveliest: Visconti, in its own words, is continually stirred by intellectual ferment, with the study of ancient models and technical inventions characterizing a frenetic activity in a

continuous exchange of innovative ideas.
A love of history and passion for innovation, the rediscovery of craftsmen's skills, and the development of ever more sophisticated systems, come together with unforgettable shades of colour, design and naturalness to make Visconti pens instantly recognizable. Every model is developed with the most advanced know-how, using both traditional methods and the most sophisticated and innovative techniques. Italian taste for beauty finds one of its highest expressions in these pens.
Because Visconti pens embody stylish character and undying charisma, they have been selected for such history-making events as the signing of the NATO-Russia Summit on May 28, 2002, which marked the end of the cold war, as well as for presents for the twenty-five signatories of the European Constitution in 2005, at the G8 meeting held in July 2009 in Aquila, and the Centenary celebrations of the Monaco Oceanographic Museum in 2010.
SIPA uses two models of Visconti pen:
The **Michelangelo**, a tribute to the Master sculptor. It has a triacontakaihexagonal-facetted barrel - 36 sides - giving a cut gem quality to the finish. The blue-black natural resin used for the barrel is set off with palladium trim. The double-incised ring features a decorative motif composed of a double Greek key with the Visconti V. **Michelangelo** features a secure magnetic closure.
The **Homo Sapiens**, made in lava from Mount Etna. Visconti has successfully produced a material containing over 50% of

pure basaltic lava, catalysed together with a resin into a material it calls perfectly fit for writing instruments. You may not want to put this to the test, but the pen is apparently virtually unbreakable - 10 times more than the same pen in regular resin; it is resistant to temperatures of over 100°C; and being slightly hygroscopic, the material absorbs moisture from your fingers during use. The charging high vacuum power filler is made of titanium, one of the most resistant materials to ink aggression.
The nib is Visconti's first-ever in 23 ct 950 palladium.

NEXT EVENTS 2012/2013

28-31 OCT.	**PACK EXPO 2012** CHICAGO, USA	*www.packexpo.com*
13-15 NOV.	**BRAU BEVIALE 2012** NUERNBERG, GERMANY	*www.brau-beviale.de/en*
19-22 NOV.	**EMBALLAGE 2012** PARIS, FRANCE	*www.emballageweb.com*
25-28 JUNE	**FISPAL TECNOLOGIA 2013** SAO PAOLO, BRAZIL	*www.fispaltecnologia.com.br*
16-20 SEPT.	**DRINKTEC 2013** MUNICH, GERMANY	*www.drinktec.com*
16-23 OCT.	**K 2013** DUESSELDORF, GERMANY	*www.k-online.de*

PET PROJECT: ONE PERSON'S TRASH, THIS ARTIST'S TREASURE

In the garden house of a home located in the small town of Buštěhrad (20 km northwest of Prague), plastic bottles pack the space nearly from floor to ceiling. But the PET (Polyethylene terephthalate) bottles haven't been thoughtlessly placed there to go to waste; rather, they are the main medium of artist Veronika Richterová, who since 2004 has been sculpting them into animals, plants and chandeliers; Venetian mirrors, Persian carpets, a sofa, a pagoda and even a brassiere. "I have big provisions of bottles," Richterová says. "When I have an idea, I need to have material. It's not easy to find it in one moment." Born in Prague in 1964, Richterová attended the secondary school of applied arts in Žižkov; an experience she describes as the most important in terms of her arts education. "I learned to work with different materials, "Richterová says, "Material for me is the most important."

Richterová's PET-ART, as she calls, it has been shown in exhibitions throughout the country and the world. In 2010, it was featured in PET Tropicana at **Prague's Botanic Garden** and at exhibitions in the Netherlands, Ireland and Germany. Richterová works from her home studio, which she shares with her husband, artist Michal Cihlář (also the photographer of her sculptures in this pages) .

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