#### J P FOCUS ON: FLEXIBILITY OF XTRA ROTARY BLOWMOLDER DRH PAG. 39 REVOLUTIONIZING MATEN LIQUID FOOD FILLING: SIPA'S FLEXTRONIC W 14 PAG. 66 PER NOTHING BASIC ABOUT XBASE RTK PAG. 77 (ISE S JUR SON

#### $\mathsf{C} \ \mathsf{O} \ \mathsf{N} \ \mathsf{T} \ \mathsf{E} \ \mathsf{N} \ \mathsf{T} \ \mathsf{S}$









04-37

AROUND THE WORLD: news from the different continents.

A 25-Year Journey of Success: the prosperous collaboration between6 GEPP and SIPA

SIPA and PDG Plastiques: Revolutionizing Wine Packaging 10 together

Crafting Excellence: CC Bottlers 14 Nepal Limited's Journey with SIPA

SIPA helps power the spirit of innovation at Phillips distilling

SIPA and Pizzorni: A collaborative success story in Italy's packaging 22 industry

Nera Kritis chooses SIPA to Pioneer 26 lightweighting preforms

SIPA systems help QPET produce 30 quality cost-efficiently in South Africa

34 SIPA and Kapack Plastic's Partnership



**02** 38-45

FOCUS ON: flexibility of XTRA rotary blowmolder.

Extra large, extra flexible, extra 40 special



**PETWORK:** concept, design, engineering, what's new in packaging world.

- 76 For this water, the bottle sparkles too
- 80 Nothing basic about Xbase

SIPA does body-building for isotonic 84 bottle from Valencia Citrus

88 SIPA wins weight race by a neck





**TECHNICAL WINDOW:** latest developments.

A bigger extrusion unit for ultra-highoutput preform production

Injection & blow mold production taken to 52 the next level

SIPA shows its strength in refillable PET 56 bottle blowing

Crafting Quality with Space-Saving Efficiency: SIPA's SFL FLEX linear

- 62 blowmolder
- Revolutionizing Liquid Food Filling: SIPA's 66 FLEXTRONIC W
- SIPA: Your Trusted Partner for Cutting-70 Edge Cosmetic Packaging Solutions



#### **SUSTAINABILITY**

Technologies and actions for recycling in a view of circular economy.

- Wave hello to a more affordable,sustainable, large bottle
- 96 SIPA has achieved a remarkable milestone!

#### EDITORIAL

# **ONE-STOP AND GO**



In the last issue of SIPA SPEAKS, we told you all about this company's unparalleled ability to provide just about everything related to processing equipment and product development that anybody, anywhere, along the PET container making and filling chain needs, all from a single source.

We think the message needs repeating. Not because we are proud to have all this capability under one roof – although obviously we are! – but because we think it is really important for people in the supply chain to know that they can turn to a unique point of reference for their needs, all the way from turning the spark of an idea into a real product, through to converting that product into a flaming success in the market. Not only can we supply all the creative design input and processing equipment that our customers call for, but we simplify their ongoing needs by being the sole source they turn to for technical support and all after-sales issues.

SIPA is flexible, innovative, technologically strong, and close to the customer, wherever you are.

It's incredibly satisfying when customers come to us to partner them for turnkey systems and all-new greenfield operations. See our feature on Bottlers Nepal, an important Coca-Cola partner. The customer calls the line "a marvel of engineering."

Heading west to the Americas, we interview the purchasing director at longtime SIPA customer Grupo GEPP in Mexico. This company recently took turnkey filling lines as well as XTRA systems for its large beverages business.

While on the subject of XTRA, capable of producing large (very large!) and small PET bottles, with excellent economics, a system equipped with Preferential Heating Ovens for the production of asymmetrical bottles is running at NPE 2024 in Orlando, Florida, in May. Obviously, the scope of a SIPA partnership is not always so all-encompassing, but the pleasure for us comes in seeing how SIPA reaches into all corners of the PET packaging world. In this issue, we also profile customers around the world who are benefiting from our partnership in multiple ways, to create, produce, and fill, PET packaging that stands out from the crowd. PDG Plastiques in France, which with SIPA is leading the revolution in the use of PET in bottles for sparkling wines. SIPA pioneered the concept, and supplied PDG Plastiques with XFORM preform injection molding systems, including the molds, as well as bottle blowing molds.

We also talk about Pizzorni, one of Italy's largest packaging converters, specializing in preforms. Pizzorni recently took a strategic decision to incorporate an SFL Performance H linear stretch-blow molding system into its production process, for production of PET bottles for flat wine. Further south, in Greece, Nera Kritis, prominent in the production and filling of mineral water bottles, partnered with



SIPA to introduce the lightest preform available in Greece, made on an XFORM system. In neighboring Turkey (Türkiye), Kapack Plastics invested in an ECS SP injection-stretch-blow molding system for containers for the pharma, cosmetics, and personal care markets. Below the equator, South African PET packaging specialist QPET acquired its first SFL Performance 4H system to produce a range of containers for edible oil, soon after taking an XFORM that makes two sizes of preform using the same cold half – a SIPA specialty. Back in the USA, we take a look at Phillips Distilling Company in Minnesota, which has acquired another SFL Performance. The list of satisfied customers is long, and it is getting longer. We think it provides proof that our mission is succeeding: to be at the service of our customers, supporting them with the utmost competence, with all the listening they need and with a wide flexibility in creating excellent, efficient, green, and innovative

production solutions.

SIPA is THE one-stop shop in PET processing technology. Go for it.







# A 25-YEAR JOURNEY OF SUCCESS: THE PROSPEROUS COLLABORATION BETWEEN GEPP AND SIPA



MEXICO



We explore today, with the assistance of Alfonso Montoya, Director of Purchasing at Grupo GEPP, the fruitful collaboration between SIPA and GEPP. This alliance, which began over 25 years ago, has evolved into a shining example of success. GEPP, the exclusive bottling group operating throughout the entire territory of Mexico, holds the exclusive portfolio of PepsiCo beverages in the country and has strategic partnerships with other brands such as JUMEX and ALPURA. GEPP has chosen to renew its trust in SIPA due to the efficiency and quality of solutions provided by our company.

From the first steps taken in 2018 to the recent acquisitions of state-of-the-art SIPA XTRA rotary blowmolders and turnkey filling lines, GEPP has experienced an outstanding

growth rate and implementation of innovative projects in recent years, counting on the invaluable support of SIPA.

Join us as we explore the details of this success story and the reasons that led GEPP to choose SIPA as a strategic technology provider for its beverage sector operations in Mexico!



We are a business group dedicated to the operation, manufacturing, distribution and marketing of water, carbonated, noncarbonated, isotonic beverages, among others. We are leaders in the production and distribution of water in 20-liter bottles. Our portfolio is made up of important brands such as ePura, Pepsi-Cola, Gatorade, Manzanita Sol, Mirinda, 7up, Lipton Tea, Canada Dry, B-Light, Jumex Fresh, among others.

# Why did you choose SIPA?

Alfonso, how could you introduce the GEPP Group in a few words?



The close collaboration between SIPA and GEPP dates back to 2003, when SIPA supplied blowing equipment and filling lines for the Geusa plants. Later, SIPA installed an SFR 16 model blower and a 144-valve filling line at the Celaya Plant in Guanajuato to produce 3-liter Pepsi. Without a doubt, this filler has been recognized as one

of the most efficient. Starting in 2022, GEPP decides to increase collaboration ties with SIPA as a strategic technological partner for a plant technological renewal program, under which GEPP awarded SIPA 4 XTRA blowers and a Gatorade filler.

Based on the good service, speed of installation, start-up and scope of operational efficiencies, GEPP decided to acquire from SIPA another 2 XTRA blowmolders, a complete line for water of 57,000 bph, two lines for soft drinks of 48,000 bph and 14 palletizers.

With the plastics producing subsidiary PROPLASA, it was decided to implement the preform lightening program, as SIPA was the winner of the tender for lightened neck functionality with the proposal for a PCO 1881 LW (LightWeight).

GEPP began its consolidated business in 2011, after the integration of the existing operations of the companies Geusa, PBG and Gatorade of Mexico, as well as the entry into business of Empresas Polar of Venezuela.

GEPP is the only PepsiCo bottler in Mexico. It has more than 45 plants producing various beverages located in all operating regions of Mexico and its own preform production plant, PROPLASA. GEPP generates direct employment for more than 42,000 workers, consolidating itself as one of the main employers in the private sector in Mexico. Additionally, GEPP is a distributor of Alpura products in the Traditional channel in various territories of the Mexican Republic.

#### What innovative services does GEPP recognize from SIPA?

The choice of SIPA as GEPP's strategic supplier was confirmed due to its ability to provide adequate technical support in Mexico, structuring a greater number of qualified technicians and a well-organized spare parts warehouse, which guarantees fast and accurate response times. In addition, the recognition of GEPP by XTRA for the connection to Echo and 4.0 digital services stands out.



#### What are GEPP's future challenges in the beverage market in Mexico?

GEPP has various commitments, among which are: contributing to the vitality of Mexicans and their families, acting in accordance with the code of conduct. In addition, we care about applicable laws and regulations, being a competitive option for our consumers by providing them with friendly and dedicated service. We continue manufacturing products of excellence and high quality, while generating portfolio growth, building win-win relationships with our clients and suppliers in the short and long terms as well as providing our workers with decent and dignified work. Gepp generates for its partners the maximum potential and return, actively participating in the communities where we operate, as well as contribute to the prosperity of Mexico.

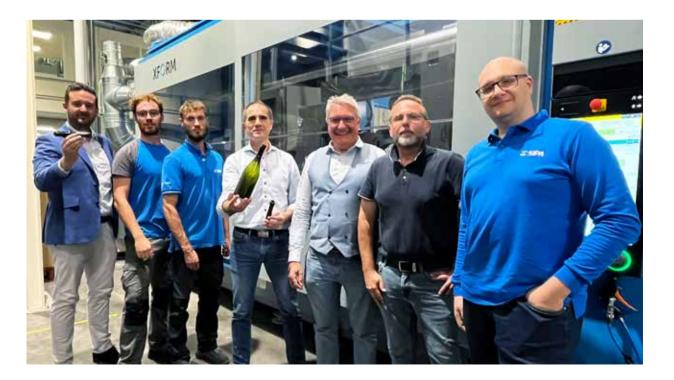






In the ever-evolving landscape of plastic packaging, innovation remains a driving force behind transformative change. SIPA, an industry leader in packaging solutions, achieved a new milestone with the development of the world's first PET bottle designed specifically for sparkling wine. This innovation has garnered significant attention and acclaim within the wine industry and beyond. PET bottles for sparkling wine provide, infact, numerous advantages, including lightweight design, durability, and sustainability.

#### PDG on the forefront of the packaging business in Europe



The first player to recognize the potential of SIPA's PET bottles for sparkling wine was PDG Plastiques who stands out as a leader in converting this innovative packaging solution into a reality. Recognizing the numerous advantages these PET bottles offered, PDG Plastiques made a strategic investment in SIPA's preform molds with 32 cavities specifically designed for the production of sparkling wine preforms. This strategic move positioned PDG Plastiques to be at the forefront of the wine packaging industry's transformation. PDG Plastiques invested not only in SIPA's preform molds but also preform systems and blowing molds.

Their commitment to serve the wine packaging markets across Europe and their adoption of SIPA's sustainable packaging solutions exemplify their dedication to excellence.



## Expanding Their Reach

PDG Plastiques' vision and investment in SIPA's technology have enabled them to serve the wine packaging markets not only in their home country of France but also in Spain, Germany, and Italy, where the appreciation for fine wines runs deep. Their commitment to innovation and quality has allowed them to make a significant impact on the wine packaging landscape.

#### A Sustainable Future

In addition to the numerous advantages that PET bottles bring to wine packaging, PDG Plastiques also invested in SIPA's XFORM 350 GEN 4 preform system. The XFORM platform, available in 250, 350, and 500 tons, represents the pinnacle of highly-cost efficient PET preform production through conventional injection molding. It boasts the capability to run molds with up to 200 cavities, making it a versatile choice for various packaging needs. XFORM stands out with its exceptional energy efficiency, low maintenance costs, and its unique ability to accept molds from any manufacturer, showcasing its adaptability and value in the PET preform manufacturing industry.

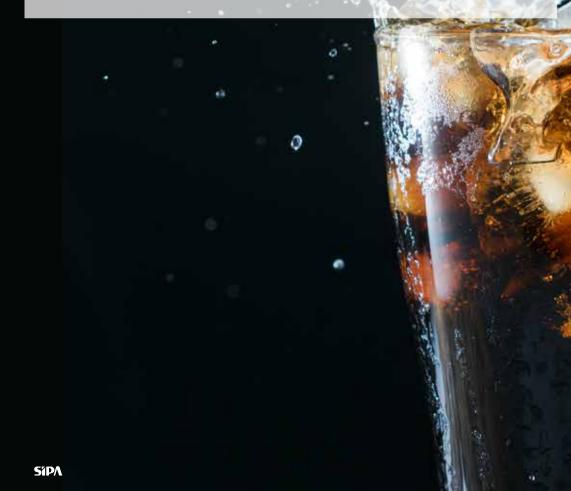
As the demand for available and sustainable packaging solutions continues to grow, SIPA and PDG Plastiques are at the head of this movement, offering innovative PET bottle solutions that combine quality, sustainability, and design freedom. Together, they are redefining wine packaging, offering a new, exciting, and eco-conscious way to enjoy the finest wines from around the world.

SIP/

PDG Plastiques, an independent and family company, is a major player in the field of PET Preforms & Bottles since 1990.



# **CRAFTING EXCELLENCE: BOTTLERS NEPAL LIMITED'S JOURNEY WITH SIPA**





NEPAL



In the vibrant heart of Kathmandu stands Bottlers Nepal Limited, a beacon of excellence in the beverage industry for over four decades. With operations spanning years, Bottlers Nepal has been dedicated to manufacturing, packaging and distributing a diverse array of soft drinks and packaged drinking water under renowned brand names such as Coca-Cola, Sprite, Fanta, Coke Zero, and Kinley.

Located in the bustling Balaju Industrial District, Bottlers Nepal's facility boasts



packaging lines for both returnable glass and PET bottles, equipped to meet the dynamic demands of the market and ensure consumers can enjoy their favorite beverages at all times.

At the core of Bottlers Nepal's success is a team comprising over 600 dedicated employees, supported by an extensive value chain and distribution network. Together, they work tirelessly to uphold the company's commitment to quality, innovation, and sustainability.





Mr. Ike Yu Hang, Supply Chain Director at Bottlers Nepal Limited shared, "At Coca-Cola Beverages Nepal, we always strive to keep ourselves updated with relevant trends and operations. The new line investment allows us to align with our long-term strategy and sustain the undisputed leader in the beverages market in Nepal. The plant we have in Balaju was first established in 1979 and we are proud to have it sustained it over more than 4 decades, to refresh the nation with Coca-Cola beverages along with the investments to maintain and upgrade our lines."

SIDA



The filling line is a marvel of engineering, designed to streamline the bottling process with unparalleled efficiency and precision.

> Equipped with advanced automation, the highly versatile filling line can handle various bottle sizes and formats, ensuring flexibility in production and meeting diverse consumer preferences.

Moreover, sustainability lies at the heart of the SIPA filling line, aligning seamlessly with Bottlers Nepal's commitment to environmental stewardship.

With energy-efficient components and innovative design features, the filling line minimizes resource consumption and waste generation, contributing to a greener, more sustainable future for Nepal's beverage industry.

Equipment deployed at Bottlers Nepal's facility includes a Sincro Bloc that combines an XTRA 8 rotary stretch-blow molding unit with a Flextronic C 54-9 volumetric filler, a Massblend 27 blending and carbonation unit, a Rollmatic 15 T labeller, a Genius PTF palletizer, and an SPF/E stretch wrapper for the pallets.

And at the heart of that story is Bottlers Nepal Limited, crafting moments, creating memories, and refreshing the spirit of Nepal, one sip at a time.

2-250 FANTA

These cutting-edge systems are instrumental in maintaining efficiency, reliability, and quality throughout the production process. As Bottlers Nepal continues to lead the way in beverage production, the company remains steadfast in its commitment to sustainability and responsibility.

Through initiatives focused on water conservation, energy efficiency, and waste reduction, the company strives to minimize its environmental footprint while maximizing positive social impact.

Looking ahead, Bottlers Nepal is poised to shape the future of Nepal's beverage industry through dedication to excellence and innovation. In every bottle of Coca-Cola, Sprite, Fanta, Coke Zero, and Kinley, lies a story, it says –a story of joy, togetherness, and celebration.



# SIPA HELPS **POWER THE SPIRIT OF** INNOVATION ATPHILIPS DISTILING

#### PHILLIPS DISTILLING CO **SINCE 1912**

#### NORTH AMERICA

In North America's heartland, a SIPA SFL Performance 6 linear stretch-blow molding system has been put to work producing topclass bottles for spirits produced by one of the nation's most innovative alcoholic drinks makers, Phillips Distilling Company.

The SIPA system is extremely versatile in the types of containers it can make, in terms of shape, size, neck type, liquid type, and other factors. At the **Phillips Distilling Company plant in** Princeton, Minnesota, round and oval bottles in sizes from half a pint to a half gallon are produced.

The SFL Performance 6, previously called SFL EVO, is well-known for its speed, quality, energy efficiency, and overall sustainability. Phillips ordered a version of the SFL Performance 6 with a shorter chain pitch than normal. This helps it save energy in the ovens, since the bottles are closer together. Depending on the bottles it is blowing, output is up to 6600 units every hour.







SFL Performance machines are fully electric, which means (among other things) that they are very clean and precise. Installation and start-up times are extremely short. Controls are very comprehensive but also easy to use.

Working with SIPA was a great experience. They were always quick to respond to questions that we would have and would provide support that was prompt when we needed it. The project was on time and on budget and the machine is running great quality bottles at expected rates

Fernando Palacios, Chief Supply Chain Officer at Phillips Distilling.

Phillips Distilling Company has been producing a wide range of spirits and liqueurs for over a hundred years, but it has never lost its thirst for innovation. "We are brand builders, using a consumer-centric approach as we strive to satisfy consumer needs. preferences, and ever-changing tastes" says Palacios.

We get to know our customers well and are inspired to create products that add value to the way they live and celebrate life. Always focused on delivering quality and craftsmanship, we foster a culture that promotes genuine hospitality

SFL

COLOR

SIDA











# SIPA AND PIZZORNI: A COLLABORATIVE SUCCESS STORY IN ITALY'S PACKAGING INDUSTRY



ITALY

In 2022, a remarkable partnership unfolded in Italy's thriving packaging industry, as SIPA and Pizzorni joined forces to revolutionize the production of PET bottles.

This strategic cooperation between two prominent players has not only showcased innovation but also underscored the commitment to delivering top-quality solutions in the market. Let's delve into the details of this collaboration and explore its significance in the context of Italy's packaging landscape.





## A Historical Journey

Pizzorni Srl, a renowned converter based in Alessandria, Italy, boasts a rich history dating back to 1900. Over the decades, the company has evolved into one of Italy's largest converters, specializing in the production of PET preforms. With a focus on providing superior packaging solutions, Pizzorni has consistently met the demands of various industries, particularly the beverage sector, including mineral water and soft drinks.



SIPA, on the other hand, is a global leader in packaging solutions, renowned for its cutting-edge technologies. The company has built a strong reputation for delivering innovative machinery and equipment tailored to the needs of the packaging industry. SIPA's commitment to sustainability and efficiency aligns perfectly with the evolving demands of the market.

## **SIPA's SFL Performance H**

The collaboration between SIPA and Pizzorni took off in 2023 when Pizzorni invested in SIPA's state-of-the-art linear blowmolder, the SFL Performance H. This versatile machine. equipped with six blowing cavities, has proven to be a game-changer in the packaging landscape. One of its standout features is the ability to produce six different bottle sizes, with little effort in mold changeovers, offering unprecedented flexibility and adaptability to the changing demands of the market.

Pizzorni strategic decision to incorporate the SFL Performance H into its production process was driven by its dedication to excellence and innovation. The machine will be producing PET bottles for flat wine and it is well-suited for the production of different bottle formats for milk, edible oil and flavored water, showcasing its versatility.

### Meeting **Market Needs**

The collaboration between SIPA and Pizzorni has not only elevated the production capabilities of Pizzorni but also contributed to meeting the diverse needs of the market. Pizzorni expertise in producing PET preforms with various neck finishes aligns seamlessly with SIPA's machinery capabilities, resulting in a harmonious partnership that benefits both companies and their clients.

As a converter, Pizzorni Srl plays a vital role in the supply chain of many prominent beverage companies, serving as a critical link in ensuring product quality and integrity. With the addition of the SFL Performance H to their production line, Pizzorni is even better equipped to meet the stringent demands of their clients in the Italian market.

The collaboration between SIPA and Pizzorni stands as a shining example of how innovation and dedication to quality can drive success in the packaging industry.

This partnership has not only enhanced the already strong production capabilities of Pizzorni but has also contributed to the continued growth and development of Italy's packaging landscape.





bottle and preform production, ensuring that Italy remains a hub of innovation in the global packaging market.



# **NERA KRITIS CHOOSES SIPA TO PIONEER** LIGHTWEIGHTING PREFORMS

NEPA

ΚΡΗΤΗΣ

Kontras



GREECE

In a bid to revolutionize the Greek market and champion eco-friendly innovation, Nera Kritis S.A., a prominent water bottling and preform/ bottles producer, has partnered with SIPA to introduce the lightest preform available in Greece. With a legacy spanning over three decades, Nera Kritis boasts extensive expertise in water bottling and preform production. Operating across three bottling facilities in Chania (Crete Island), Axioupoli (North Greece), Loutraki (Central Greece), and a cutting-edge packaging materials facility in Thiva, the company has consistently aimed at introducing distinctive, environmentally conscious products to the market.

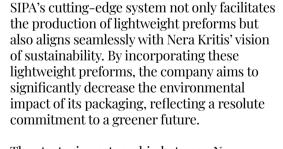
Stepping boldly into 2023, Nera Kritis embarked on a pioneering venture, investing in SIPA's XFROM SYSTEM GEN4 72Cavities. This cutting-edge technology enables the production of 26mm Hexalite neck finish preforms for still water, marking the debut of such a product in Greece. Notably, the newly launched preforms weigh a remarkable 9gr/10.5gr/22gr, setting an unprecedented standard for lightweighting.

#### The decision to adopt SIPA's innovative technology resonates deeply with Nera Kritis' ethos of environmental stewardship.

The company views this investment as a pivotal step toward offering the most environmentally friendly packaging for an essential product like water, vital for human well-being.







The strategic partnership between Nera Kritis and SIPA signifies a milestone in the Greek market's journey toward sustainability. Together, they are reshaping industry standards, setting a precedent for ecoconscious packaging solutions. As consumers increasingly prioritize sustainability, Nera Kritis stands at the forefront, pioneering change through innovation and a steadfast commitment to the environment.

The collaboration with SIPA marks a significant leap toward a more sustainable future for Greece's beverage packaging industry.



In embracing SIPA's state-of-the-art technology, Nera Kritis reiterates its unwavering dedication to fostering environmental responsibility without compromising on quality, setting a new benchmark for eco-friendly packaging in Greece.





**SOUTH AFRICA** 

**QPET** SOUTH AFRICA

#### South African PET packaging specialist QPET has taken a liking to SIPA.

Last year, it acquired its first SFL Performance 4H linear stretch-blow molding system to produce containers in several formats and neck finishes for edible oil. Bottles range from two to five liters.

The same year, QPET also installed an XFORM 350 PET preform injection molding system with a 72-cavity mold, for the production of various preforms with the 1881 neck.

And since, as they say in Italy, there isn't two without three, the company took a 48-cavity mold for the production of preforms with 45-mm necks for containers in large formats.



For QPET, the SFL succeeds with its reliability, flexibility, and wide process window, on top of its ability to blow bottles with the highest quality. As for the XFORM, a key advantage is that it provides an optimal way of producing preforms in two sizes with a single cold half. Not all system providers provide that important cost-saving feature!



Arshud Sema is General Manager at QPET. He says the company chose SIPA because SIPA is aligned with QPET's plan for future development, as well as its vision in terms of technology, sustainability, and quality.

SIPA also has the advantage of having its own team of after-sales engineers permanently based in South Africa. Proximity, fast intervention, and a crew of specialists with their own expertise in injection molding and stretch-blow molding are proving especially important for QPET, says Sema. QPET is a family-owned enterprise founded in 1996, specializing in the production and supply of PET preforms and containers, as well as closures. With locations in Pietermaritzburg, Johannesburg, and Cape Town, it possibly produces the largest range of preforms in South Africa.



The company supplies products and services to the water, food & drink, and chemical industries in the country. It is a leader in PET products for edible oils, and has a mission to strengthen its position in multiple markets.

Preforms are produced for QPET's own operation and also for local and international customers. QPET increasingly uses RPET obtained from key customers, for production of preforms intended for non-food applications.









#### **Ø KAPACK**

TURKEY

In the world of cosmetic and pharmaceutical packaging, collaboration and innovation are the keys to success. The partnership between SIPA and Kapack Plastic stands as a shining example of how two companies, each with unique strengths, can come together to create a winning formula.

#### **Kapack Plastic:** A Vision for the Future

Kapack Plastic, established in 2022, is a Turkish company with a clear vision to excel in the production of cosmetic and pharmaceutical articles. Their commitment to quality and innovation sets them apart in the highly competitive packaging industry. With its state-of-the-art factory located in Manisa near Izmir, KAPACK Plastic is well-positioned to meet the diverse packaging needs of its customers.



#### **SIPA's Cutting-Edge Technology**

SIPA, on the other hand, is renowned for its cutting-edge technology and expertise in the field of packaging machinery. Their Injection Stretch Blow Molding (ISBM) machine, the ECS SP 25, has been a game-changer in the industry. Designed for producing high-quality containers with various shapes and sizes, including special neck finishes, it is ideally suited for pharmaceuticals, cosmetics, and personal care products.



#### **The Collaboration: ECS SP** 25 at the Heart of Success

KAPACK's journey to success took a significant leap forward when they invested in the ECS SP 25 ISBM machine from SIPA. This machine enabled KAPACK to produce 400ml round bottles and other PET cosmetic bottles with remarkable precision. With its unique features, including quick change-overs, compact layout, and high energy efficiency, ECS SP 25 has proven to be a valuable asset for KAPACK's production needs.



The Advantages of ECS SP: Quality, Flexibility, Efficiency, Safety, and Speed

The advantages of ECS SP are multiple. Quality is guaranteed, ensuring the success of KAPACK's products. The flexibility of the machine caters to every production requirement, while its efficiency and safety standards are second to none. Fast cycle times ensure maximum precision in minimal time, a crucial factor in today's fast-paced market.

#### A Commitment to Quality and Sustainability

At the helm of Kapack Plastic is Mr. Salih Ucar, the General Manager who leads a dedicated team of around 35 employees working in three shifts. Mr. Salih deeply appreciates the cooperation with SIPA, acknowledging its role in KAPACK's success story. Kapack Plastic stands out not only for its commitment to quality and innovation but also for its dedication to environmental sustainability. They firmly believe that sustainability is the way of the future, and as custodians of the planet, it's their duty to implement sustainable practices. KAPACK is resolute in protecting the natural world order, making it their mission to ensure a livable future for generations to come.

> Innovative, Ergonomic, and Ideal Products for Different Industries

KAPACK's team of experts prides itself on delivering innovative, ergonomic, and ideal products across various industries. Their commitment to enhancing the value of brands through competitive quality, safety, and innovation is what sets them apart. In an everevolving market, their dedication to customer satisfaction remains unwavering.

In the story of SIPA and Kapack Plastic, we see a partnership built on shared values of quality, innovation, and sustainability. Together, they have not only achieved success in their respective fields but have also made a positive impact on the world by prioritizing environmental responsibility.

As they continue their journey, their collaborative spirit and dedication to excellence serve as an inspiration to the packaging industry and beyond.







# EXTRA<br/>BARGE, EXTRA<b

The XTRA range of rotary stretch-blow molding systems from SIPA is well known for its high output capacity and outstanding energy efficiency. That is mainly down to the excellent kinetics of moving components and to the unmatched process angle of 275 degrees. Increasing the process angle provides more time for blowing and in so doing reduces built-in stress in bottles, enabling extremely accurate reproduction of mold surfaces – even the most complex ones.

SIPA

#### <sup>66</sup> These and other features make it possible to produce up to 2,800 bottles per hour, per cavity.

But there is more to XTRA than this. XTRA machines are flexible too: even in their basic configuration, they can produce a very wide range of container shapes and sizes, while units designed for hot-fill bottles are just as good at blowing cold-fill types. The time required to switch molds for bottle bodies and necks is very low, so uptime is maximized, and productivity taken to heights that nobody else can match.

Flexibility is taken to an even higher level with special versions, such as XTRA PH (Preferential Heating) and XTRA BIG

# XTRA SHAPES

The XTRA PH is especially good at blowing bottles with asymmetric cross-sections – ovals or even more complex shapes. Preferential Heating enables an even wall distribution all around the circumference. A standard stretch-blow molding machine with a conventional oven can provide differential heating in the vertical direction, but it can't heat differently around the



circumference to different temperatures. If a symmetric preform is used to create an asymmetric bottle, some parts of the wall ends up being thinner than others. With Preferential Heating from SIPA, that problem is resolved.

XTRA units with Preferential Heating differ from others in the way the preforms rotate as they pass through particular parts of the oven. The ovens have two distinct, highly controllable, infrared heating zones. Initially, the preforms rotate just like on a regular machine, reaching a certain minimum temperature around their circumference.

#### THEN, THEY PASS INTO AN AREA WHERE THEY STOP ROTATING.

As a result, certain parts of the circumference come out of the oven hotter than others. These are the parts that under normal conditions would stretch less in the blow mould. Instead, stretching is much more uniform all around the circumference.

#### THE PH OVEN CONCEPT PROVIDES FULLY FLEXIBLE PROCESS CONTROL.

Precise and intuitive infrared lamp conditioning leads to accurate and reliable heating. Sophisticated oven ventilation helps in optimal production of even the most complex containers.

Despite the high level of sophistication, setting up the oven is relatively simple. Process control, with its dynamic monitoring and close loop supervision of heating and blowing, as well as hole detection, ensures constant high quality of finished bottles. All these parameters are simply saved in set-up parameters , to allow a simple and repeatable production of multiple SKUs.



**SΊΡΛ** 

Each position in an XTRA PH oven has its own specific high-performance ventilation, with one fan for incoming filtered fresh air and four fans for hot air extraction, each one adjustable by a dedicated inverter. Meanwhile internal air cooling is done via special bored stretching rods with patterns of holes created according to the design of the bottle.

#### Thanks to all these attributes, the XTRA PH achieves outstanding output of non-round containers.

If you consider a bottle with an oval shape where, looking down on the cross section, the width is at least twice the depth, an XTRA can produce 2,000 for 500-mL bottles per hour per cavity.





## XTRA SIZES

While the XTRA PH is ideal for production of regular-sized bottles with irregular shapes, XTRA BIG variants can blow bigger, symmetric, bottles – bottles as large as 12 liters in fact. Such bottles are typically (but not exclusively) used for packaging water or edible oil.

XTRA BIG units build on SIPA's award-winning process competence in SFL BIG linear systems, including simple preform handling and the specially sized stretch system and blowing block.

Systems share many design features with their regular counterparts - machine layout, preform handling and active grippers are just about the same for example - but the blowing section has been designed specifically for big bottles.



This form of system integration enables bottling companies to avoid transportation of empty bottles and eliminates the need for rinsing.

#### **XTRA POPULAR**

## THE XTRA FAMILY IS AVAILABLE IN THE PACKAGING WORLD SINCE 2021

As the system gets put through its paces again at NPE 2024 in Orlando in May, Xtra is riding on the crest of a wave. Sales are well into three figures, and the growth curve is getting steeper all the time. Despite global uncertainties, we believe that the future for Xtra is Xtra bright!







# A BIGGER EXTRUSION UNIT FOR ULTRA-HIGH OUTPUT PREFORM PRODUCTION

SIPA has extended its range of extrusion units that fit on the XFORM 500 injection molding system. SIPA is the only company in the world offering PET preform molds with an almostincredible 200 cavities, and now processors who want extra comfort for production at full speed with such an amazing mold can opt for an extra-large extruder: the EE155. It's an important addition to the SIPA range.



Sales of XFORMs continue to grow year-on-year, and around 15% of current sales of the XFORM 500 are for use with high-cavitation molds, with either 180 or 200 cavities.

It was a logical step for SIPA to add an extruder with a higher capacity – around 1700 kg/h, way more than our previous top-of-therange unit – to provide our customers with more flexibility when making preforms with higher weights across the full range of mold cavitations. At the beginning of this year, SIPA was already producing three new XFORM 500 systems equipped with the EE155 extruder, set to be ready for delivery in April.

SIPA now offers three sizes of XFORM, with clamp forces of 250, 350, and 500 tonnes, and each model can be equipped with at least three different sizes of extruder.





Now, there are four options for the XFORM 500, starting with the EE100, passing through the EE120 and EE140, topping out with the EE155.

# INJECTION & BLOV MOLD PRODUCTION TAKEN TO THE NEXT



In recent months, **SIPA**, has invested heavily in a new production philosophy and new production islands that cut material wastage and downtime, with the result that lead times are reduced.

But product quality is higher than ever. At the same time, SIPA has added to the value of the people employed in the operation.

## **BEHIND THE NEW ORGANIS ARE THE PRINCIPALS OF KAIZEN, OR CONTINUOUS IMPROVEMENT.**







All SIPA processes focus on customer satisfaction and the understanding of the customer requests, not only in technological terms, but also in terms of reliability, performance and response times.

#### Kaizen is one of the most important concepts of lean production.

It involves not only products, but also processes, production assets and the specialization of operatives. It is the driving force behind everything innovative that happens at SIPA.



constantly reviews the value-stream mapping of the entire mold production process,

allowing it to eliminate activities that do not create value and create a production flow that reflects demand and eliminates delays and waste.

By improving technological performance and making processes more robust, SIPA can guarantee excellent quality and cuttingedge products.

#### Quality molds demand quality processes.

SIPA's latest one-piece-flow production logic, with dedicated FMEA (Failure Mode and Effects Analysis) and control plans, is the result of a synergy between process engineering and quality engineering. Having control of the process for single items, rather than batches, improves overall flexibility in production and provides a safer working environment. The reduction of lead-time and punctuality at every stage also contributes to making the SIPA service particularly competitive.

The objective of continuous improvement is based on the choice of the best technologies, the technical training of staff and the search for innovative solutions. SIPA studies every single process phase in order to minimize the risk of error and maximize efficiency, creating stable and robust processes.

#### Operators can supervise activities in an organized and safe way.

As a result, they are evolving into supervisors of automated islands as they acquire increasingly challenging and crucial skills.



Constant process monitoring and control allows deviations to be identified in real time and errors prevented, guaranteeing very high product quality.

Each phase of the workflow is prepared with timely interlocking of materials and equipment, eliminating warehouses or processes, with a just-in-time perspective to feed the final assembly and testing phases.

Within the Kaizen system as applied to mold making, SIPA can measure, monitor and record everything that happens.



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The popularity of refillable PET bottles is growing fast. Governments are pushing for them, all sorts of technologies are increasingly enabling them, major brands are keener to make them, and multiple markets around the world are pulling them. By the end of this year. the global market for refillable PET bottles should be close to \$10 billion. and in ten years' time it could be worth well over \$15 billion.

growth.

Refillables are emblematic of the circular economy, but they also represent another circle. Back in the 1960s and 70s, refillable glass bottles were extremely popular in Northern Europe and North America in particular. But then return schemes all but disappeared during the 1980s and '90s, as metal cans and single-use PET bottles gained dominance.

Now, sustainability issues are pushing drinks packaging to return to its roots.

# SIPA SHOWS ITS STRENGTH IN **REFILLABLE PET BOTTLE BLOWING**

#### **Advanced SIPA bottle** blowing systems will be instrumental in catering for that



National governments are developing their laws to mandate more sustainable plastics packaging. France for example banned the sale of single-use plastic water bottles in public places in 2020.

In the USA, the number of specialist refillable water stations has increased by 50% over the last five years.

One example from industry: Coca-Cola wants to increase its use of refillable bottles (glass and PET) to 25% by 2030 Coke and other brands want bottles to last for at least 15 trips, preferably many more: 25 is regarded as realistic. Under the European Green Deal, new regulations say the market share of bottles for non-alcoholic beverages in reusable/refillable packaging should reach 10% by 2030, rising to 40% by 2040. SFL

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In Europe, there have been widespread rollouts of new deposit return schemes (DRS).



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In parts of Latin America, returnable bottles never left the mainstream.

So now we have an ideal scenario for improving bottle-to-bottle circularity.

SIPA has for many years been in the vanguard of the "3Rs" movement: Reduce, Reuse, Recycle. It regards refillable PET – RefPET – bottles as one important answer to solving the global packaging sustainability problem. RefPET bottles combine the advantages of one-way PET bottles and multi-use glass ones.

Logistical limitations to their adoption are being addressed.

SIPA

Independent Life Cycle Analyses (LCAs) have shown that RefPET bottles perform better, and are more sustainable, than reusable glass bottles. However, considerable changes in manufacturing processes, inputs, and logistics required for PET containers will be necessary, since RefPET bottles are quite different from one-way types, and industry-wide change in the manufacturing of PET packaging will be necessary.

In a RefPET system for example, the bottle needs to be filled and washed at high temperatures multiple times, in order to meet hygiene requirements.

This means **RefPET bottles** are more than twice as heavy as in one-way. 99

That puts extra demands on preform and bottle production, including cooling systems. SIPA, therefore, has successfully carried out preform and container design for refillable bottles with special focus on lightweighting all bottle sizes designing a new base for the 3L that improves base forming and washing cycles.

Furthermore, considerable development and testing work have been carried out on RefPET bottles, in collaboration with various downstream partners. This includes very large water bottles for water coolers, where results are very promising. SIPA's SFL Maxi 1 machine yields considerable advantages in both OPEX and CAPEX, compared with competitors.

SIPA offers several important features for downstream partners involved in RefPET bottle - and also preform - production. It has, for example, significant experience in special preform design and production. For the bottle molding itself, it has developed electric heating of blow molds, to improve bottle performance and also special base designs, for which it has a patent pending.

**66** For all of these features, SIPA can provide multiple references.

commercial use) for production using between two and six cavities.



Diverse blow molding systems are in use for RefPET bottle production. For high output – up to approaching 8000 bph – of bottles around 2L in volume, there are the XTRA 6 and 8 rotary systems. Linear SFL systems – Performance 6, Dynamic 4 and Dynamic 3H, as well as Flex 2 types, with their best-in-class performance cater for lower outputs and larger bottle volumes.

They all feature extreme stretching capabilities. ease of use and maintenance, clean operation, and excellent energy efficiency.

The global market for PET bottles is changing. and RefPET is on the up. SIPA has the capabilities and experience in preform and bottle design and production to maximize the potential of RefPET bottles.

CRAFTING QUALITY WITH SPACE-SAVING EFFICIENCY: SIPA'S SFL FLEX LINEAR BLOWMOLDER





SIPA has introduced the SFL Flex machine, expanding its SFL range of linear stretchblow molding machines to cater to the production of small batches. The SFL Flex is available in two versions, one with two cavities and the other with just one. These machines are designed for lower output segments, producing between 1000 to 4000 bottles per hour.

# They offer several advantages:

#### **1.** Small and Flexible

The SFL Flex machines are compact, flexible, and easy to use, making them suitable for various production needs.

#### 2. High-Quality Output

Like the larger models in the SFL family, the SFL Flex machines are capable of producing very high-quality PET bottles, ensuring that the bottles meet stringent quality standards.

#### **3. Versatile Applications**

These machines are ideal for launching new products across various segments, including beverages, personal and home care, hotfill, refillable bottles, and more. They are compatible with PET, rPET, and other polymers used in the stretch-blow molding (SBM) process.

#### 4. Size and Capacity

The SFL Flex 2 can produce bottles of up to 3 liters in volume, with necks of up to 48mm. It achieves speeds of up to 2000 bottles per hour per cavity, making it suitable for small to medium production runs.

#### **5.** Optional Features

The machine can be equipped with numerous optional features to expand its capabilities in terms of bottle shape and filling requirements, allowing it to meet specific production needs.

#### 6. Quick Changeovers

The SFL Flex machines offer quick mold changeovers, with a change time of no more than 10 minutes, minimizing downtime during production changeovers. Neck changes can be completed in about 30 minutes, enhancing operational efficiency.

#### 7. Compact Footprint

Despite their capabilities, these machines have a compact footprint of just 8 square meters, making them suitable for installations with limited space.

## **8**. Flexibility in mold and customized parts

SFL FLEX is designed to host any kind of existing blow mold (shell or block, from SFL, XTRA or other OEMs / mold producers). Majority of the perso parts have same

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engineering of the SFL family, allowing smooth transition to other machine sizes (scaling-up production or scaling-down blowing operations).

Overall, the introduction of the SFL Flex machines by SIPA offers a versatile and efficient solution for companies looking to produce small batches of high-quality PET bottles across various industries while optimizing space usage with its low footprint.



# REVOLUTIONIZING LIQUID FOOD FILLING: SIPA'S FLEXTRONIC W

In today's fast-paced liquid food production landscape, precision and adaptability are essential for success.



SIPA, a trusted leader in the industry, proudly presents the FLEXTRONIC W weight filler—a groundbreaking addition to our line of filling monoblocs. Engineered initially for high-value food products, this innovative machine has evolved into a versatile solution suitable for a diverse range of products. From edible oils, salad dressings and ketchup to sauces, as well as applications in home care and personal care industries, the FLEXTRONIC W offers unparalleled adaptability and precision. With its advanced technology and customizable features, it delivers exceptional performance, ensuring efficient production processes and superior product quality.

#### Meeting Diverse Demands with SIPA

The food and personal care industries require high-performance, adaptable filling solutions, and SIPA stands out as a dependable partner with unparalleled expertise. With SIPA's array of filling monoblocs, featuring the FLEXTRONIC W, clients can expect nothing short of top-tier quality, exceptional sanitization capabilities, and minimized operational expenses, all tailored to meet diverse needs and specifications.

# Introducing the **FLEXTRONIC W**

At the heart of SIPA's commitment to innovation is the FLEXTRONIC W, a weight filler that embodies flexibility and adaptability. This state-of-the-art machine accommodates caters to a broad range of liquid food products, positioning it as the preferred choice for producers handling high-value items like edible oil, salad dressings, ketchup, sauces, detergents, and personal care products. With its precise operation and efficient performance, the FLEXTRONIC W proves to be a valuable asset in both liquid food and personal care manufacturing processes.

# Benefits of the **FLEXTRONIC W**

The FLEXTRONIC W offers a host of benefits that underscore its superiority in liquid food and personal care product filling

#### Versatility:

The FLEXTRONIC W seamlessly accommodates various types of liquid food and personal care products, allowing producers to expand their product offerings without the need for multiple filling machines, thereby enhancing operational flexibility and cost-effectiveness.

#### **Precision**:

Leveraging cutting-edge weight filling technology thanks to a proprietary load cell, the FLEXTRONIC W achieves unparalleled accuracy in filling operations. This precision is paramount in minimizing product waste and upholding the highest quality standards, thereby ensuring consistency and customer satisfaction with every container filled.

#### **Efficiency**:

Equipped with features for quick adjustments and minimal downtime, the FLEXTRONIC W drives higher production rates and overall efficiency, especially when configured in sincrobloc with blowmoulding machine.

#### **Cost Savings**:

SIPA's unwavering commitment to reducing running costs extends to the FLEXTRONIC W. By enhancing operational efficiency and minimizing product waste, this advanced filler helps manufacturers effectively manage costs, ultimately contributing to improved profitability.

#### **Quality Assurance**:

The FLEXTRONIC W maintains SIPA's stringent quality standards, ensuring that every container filled meets the desired specifications. Manufacturers can trust in the reliability and consistency of their production processes, fostering consumer confidence and brand reputation.



#### Added Values: Enhancing the FLEXTRONIC W Experience

The FLEXTRONIC W offers a comprehensive set of features designed to elevate its performance to unprecedented levels.

#### **Flexible Product Handling:**

The FLEXTRONIC W excels in handling a variety of products, eliminating the need for additional equipment and simplifying the production process.

#### **Adjustable Filling Speed:**

This machine allows for effortless adjustment of filling speed, ensuring efficient handling of diverse liquid food and personal care products.

#### **Automatic Filling Engagement:**

With automatic engagement of filling processes, precision and consistency are guaranteed, resulting in uniform product quality with every fill.

#### **Sanitary Design:**

The FLEXTRONIC W boasts a sanitary design, maintaining product integrity and making it an ideal choice for industries with stringent hygiene standards

#### **Quick Changeovers**:

Without requiring additional tools, it allows for swift changeovers between different containers and product setups or configurations, facilitating seamless transitions and optimizing the production efficiency.

#### **Simplified Maintenance**:

Easy access for maintenance ensures uninterrupted production, minimizing downtime and maximizing operational efficiency.

#### Safety:

Modular element guards prioritize safety and convenience, providing operators with added peace of mind during operation.

With these advanced features, the FLEXTRONIC W sets a new standard for performance, reliability, and ease of use in liquid food and personal care product filling.

#### **Processed Products** and Output

The FLEXTRONIC W is designed to handle a wide range of liquid food and personal care products, spanning from edible oil, salad dressings, to sauces, ketchup, detergents, and personal care items. With fillers featuring from 20 to 96 valves, the FLEXTRONIC W can achieve output rates ranging from 6,000 to 36,000 bottles per hour on 1.5-litre containers. This remarkable versatility and efficiency make the FLEXTRONIC W the ideal solution for a wide range of production needs across various industries.

#### **Main Features**

The FLEXTRONIC W boasts a range of impressive features, including a pressurized central tank that ensures efficient product handling. Its durability and commitment to hygiene are evident in its entirely stainless steel (grade 304) draining frame. Moreover, this machine excels in reducing changeover



times, contributing to increased productivity. Operating the FLEXTRONIC W is a breeze, thanks to its user-friendly touchscreen HML allowing for intuitive control and monitoring of filling processes while innovative software guarantees precise product dosing. For those seeking the strictest hygiene standards, an ultraclean configuration featuring nitrogen pressurization of the filling tank is available as an option, along with automatic insertion of dummy

bottles during CIP. Additionally to minimize waste, the FLEXTRONIC W is equipped with a recovery tray for rinsing or cleaning oil with automatic insertion beneath the filling nozzles, thus ensuring complete product recovery at the end of production and facilitating product changes.

With these advanced features, the FLEXTRONIC W not only excels in performance and productivity but also prioritizes hygiene and waste reduction, making it the ultimate solution for liquid food and personal care product filling needs.

In conclusion, SIPA's FLEXTRONIC W is a testament to the company's commitment to innovation and providing tailored solutions for the ever-changing needs of liquid food and personal care products manufacturers. Regardless of whether you operate in the food, personal care, or detergent industry, the FLEXTRONIC W stands as a versatile, precise, and efficient choice that redefines the filling process for your products. With its cutting-edge features and unmatched performance, the FLEXTRONIC W revolutionizes your production operations, empowering you to achieve unparalleled efficiency and quality in product filling.

# ATEX

In a significant evolution stemming from the innovative Flextronic W machine, SIPA introduces the ATEX version, a groundbreaking solution tailored specifically for the safe filling of flammable liquids, such as hand sanitizers with a 70% alcohol content. This specialized configuration adheres rigorously to ATEX compliance standards, ensuring the utmost safety in environments where explosive gases and vapors may be present.



The ATEX version of the Flextronic W incorporates a range of enhancements meticulously designed to mitigate potential risks associated with equipment operation in hazardous atmospheres. These enhancements include the elimination of potential mechanical or electric ignition sources, thereby reinforcing the machine's safety factor. Furthermore, the integration of micro isolators around the filling valves serves to delineate and contain potential hazardous areas while incorporating ventilation and aspiration systems to further minimize risks.

Overall, the ATEX version of the Flextronic W underscores SIPA's commitment to safety and precision engineering, catering to the needs of industries requiring the safe and efficient handling of highly flammable liquids. This groundbreaking solution not only ensures compliance with stringent safety standards but also provides peace of mind to manufacturers operating in hazardous environments.

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In the dynamic world of cosmetics and personal care, packaging plays a pivotal role in attracting consumers and ensuring product integrity. Manufacturers in these industries need a reliable partner who can provide state-of-the-art machinery for container production. Today more and more producers in the field are keen to swap to PET from other plastic resins due to PET's flexibility and easy recyclability. SIPA has emerged as a leading player in this field, offering innovative solutions such as ISBM (Injection Stretch Blow Molding) technology. One of their standout offerings is the ECS SP system, available in 80 and 25 tons models.



SIPA's ECS SP system is an evidence to their commitment to distinction in the packaging industry. Designed for the production of a variety of containers for food, beverage, cosmetic and personal care markets, this system delivers unparalleled performance and reliability.

The ECS SP system stands out for its remarkable features, which make it an ideal choice for cosmetic container production:

## **1. High Precision**

The ECS SP system ensures precise molding, resulting in containers with consistent dimensions, high clarity, and a flawless finish. This is crucial in the cosmetics industry, where aesthetics matter.

# 2. Customizable

SIPA understands that cosmetic packaging comes in various shapes and sizes. The ECS SP system is versatile and can be tailored to produce bottles and jars with diverse designs, including the recent addition of a small jar for cosmetics.

# **3.** Efficiency

With a cavitations ranging from 1 to 16, the ECS SP system optimizes production efficiency. This means you can meet high demand for output while maintaining topnotch quality.

# **4.** Color Options

The ECS SP system can produce containers in a range of colors, with high versatility that enables to produce packaging that aligns perfectly with your brand's identity with fast and easy color change.

> Case in Point: Cosmetic Jars production with ECS SP 80

To exemplify the capabilities of the ECS SP system, SIPA recently designed and produced a small cosmetic jar using their industrial machine, the SP 80. This small jar, with a neck finish of 89mm and a weight of 29g, exemplifies the precision and flexibility of SIPA's technology. The ECS SP system, with its 4-cavity design, allowed for efficient production of these jars with consistent quality even at low cycle time.

The range of master batch color options, enabled SIPA to create these jars in amber, white, and transparent variants, catering to diverse customer preferences. The ECS SP integrates the unique ability to produce containers with both flat and embossed bottoms without the use of the so called "Bottom mold delay", an option always required on competitors machines.

### This, further demonstrates the complete adaptability of SIPA's machinery.



### SIPA's Commitment to the Cosmetic and Personal Care Packaging Market

In conclusion, SIPA has proven itself as a trusted partner for manufacturers in the cosmetic and personal care packaging industry. The ECS SP system's aptitude to provide high precision, customization, efficiency, color variety, and bottom style options makes it an invaluable asset for businesses in this sector.

SIPA's commitment to innovation and customer satisfaction is evident in their recent design and production of the small cosmetic jars using the ECS SP 80 and ECS SP 25 machine. This showcases their ability to adapt to changing market demands and deliver packaging solutions that not only meet but exceed industry standards.

As the cosmetic and personal care markets continue to evolve, SIPA remains at the forefront, offering flexible systems that can quickly adapt to changes in bottle color and shape, ensuring that your brand remains competitive and appealing to consumers. With SIPA as your partner, you can confidently navigate the ever-changing landscape of cosmetic, personal care and home care packaging industries.







# concept, design, engineering, what's new in packaging world



# **FOR THIS** WATER, THE BOTTLE **SPARKLES** TOO

Healsi mineral water, crafted by the Portuguese company Outeirinho Turismo e Indústria, graces your table in bottles resembling diamonds.







The award-winning asymmetric design, featuring rhomboid facets on both body and base, offers an elegant and innovative method of bottling high-quality mineral water – be it still or sparkling – tailored for the HoReCa sector.

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These bottles, available in crystalclear and tinted variations, and in three sizes – 350mL, 500mL, and 1L – are now efficiently produced at high speed. To achieve this, SIPA's team of designers and engineers employed reverse engineering, process optimization, and prototyping, ensuring a flawless shaping of the challenging bottom even during highoutput production.

SIPA's engineering prowess has enabled the production of these bottles on an XTRA 8 highperformance rotary blow molding system, specifically supplied by SIPA for this purpose.



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BAG



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SIPA's Packaging R&D Team introduces the innovative XBase – short for Extra High Performance Base. After two years of dedicated research and development on high-speed lines, XBase represents a breakthrough in base technology that offers numerous benefits to our customers. SIPA's mold makers have once again pushed the boundaries of innovation with the introduction of the XBase. This sophisticated petaloid base design, featuring SIPA's patented X-Vent technology, not only facilitates a reduction in PET bottle weight but also operates at lower air pressure levels, marking a significant rise in efficiency and sustainability.

At the heart of this technological advance are the X-Vents – narrow channels meticulously distributed into critical areas of the base. Cleverly integrated into the bottle design, these channels enhance the evacuation of air between the bottle wall and mold surface during the blowing process optimizing the formation of challenging shapes.

Compared to conventional bases, the XBase delivers superior material distribution, allowing for a significant reduction in bottle base weight.



Remarkably, the blow pressure can be dialed down to as low as 18 bar, showcasing the technology's prowess in achieving operational efficiency.

The versatility of XBase extends to its compatibility with bottle volumes up to 2.5 liters, making it an ideal choice for containers holding a variety of beverages, including highly carbonated ones with CO2 levels reaching up to 4.2%. Rigorous tests conducted in SIPA laboratories have demonstrated exceptional resistance to stress cracking, ensuring the reliability and durability of the bottles. Furthermore, thermal resistance tests have yielded excellent results, attesting to the resilience of the XBase under varying conditions.

SIPA's commitment to sustainability and performance is further exemplified by the impressive production achievements with XBase. Output levels of up to 2800 bottles/ hour/cavity have been realized on SIPA lines, showcasing not only the speed but also the stability of production. Even when utilizing 100% recycled PET, the XBase technology elevates bottle base quality, contributing to a more sustainable packaging solution for the industry.

In conclusion, the XBase by SIPA is more than just a base design; it represents a leap forward in blow molding technology, combining efficiency, sustainability, and performance. As SIPA continues to pioneer advancements, the XBase stands as a testament to the company's dedication to shaping the future of PET bottle manufacturing.





# **SIPA DOES BODY-**BUILDING FOR ISOTONIC BOTTLE FROM VALENCIA CITRUS





When Bolivian health drinks producer Valencia Citrus wanted an innovative bottle for its new Santè isotonic drink, it turned to SIPA. And SIPA did not disappoint.

But what exactly is are isotonic drinks anyway? Well, they contain similar concentrations of salt and sugar as in the human body, and are designed to quickly replace fluids lost during exercise, while also providing carbohydrate to provide energy.

### So, with the idea of a fit, strong, healthy body in mind – trim waist, muscular torso, broad shoulders – SIPA designers came up with the stunning design you see here. But it's not just about looks.

# Not forgetting that form follows function,

the designers integrated trapezoidal panels into the body of the bottle, so that it would not distort on cooling after it was hot-filled with the drink. The technical solution behind the design used here is so novel, as well as intelligent, that SIPA has a patent **On it**.





Not only did SIPA create the design for the bottle, but it also carried out the prototyping. Then, once Valencia Citrus signed off on the project, it bought one of SIPA's SFL 4/4 linear stretch-blow molding systems to produce the one-liter bottles. Each bottle weighs 52 g, and has a 33-mm thread.

# **SIPA WINS** WEIGHT RACE BY A NECK

Latest lightweighting developments at SIPA not only help converters cut down on consumption of PET, they also enable them to conform with upcoming European laws for single-use plastics (SUPs) covering tethered caps.

# Lightweighting makes production of bottles greener – and more profitable.

SIPA has dedicated itself to bottle lightweighting for a long time, but its most recent efforts have concentrated on taking material out of the preform neck without negatively affecting container and closure performance in production and use.

In fact, the new designs take the same closures as before, and converters don't need to make any changes to handling systems. Finished bottles have excellent mechanicals, and they look great.

Here's an example of annual savings possible using the lightweight version of the

PCO 1881 neck finish for a carbonated soft drink bottle.

Preforms weight [g]	20.5	19.8
Saving per preform[g]		0.7
Preforms year	200,000,000	200,000,000
Resin cost [€/ton]	1,250	1,250
Resin /year [t]	4,100	3,960
Total Cost /year [€]	5,125,000	4,950,000
Saving per year [€]		175,000

# The SUP Directive 2019/904 comes into force in July.

SIPA's design team has demonstrated its dedication to eco-conscious packaging time and time again by creating a range of functional, and environmentally friendly bottles that also look good. Some of these bottles need no labels, making them easier than ever to recycle. This innovative approach not only minimizes waste but also bestows a clean, sleek appearance, elevating the bottle's aesthetic appeal. Plus, they weigh less than "regular" bottles.

PCO 1881		PCO 1881 LW	
	-18,4% weight		- MAR
H = 17mm W = 3.8g		H = 17mm W = 3.1g	

Assuming a price of PET of €1250/tonne, an annual production of preforms of 200 million units, with necks weighing 0.7g less than regular PCO 1881 necks, the preform producer can save €175,000/year.

# Crucially, the new neck accepts tethered caps in line with the new SUP Directive.

So SIPA's innovative bottle designs not only prioritize sustainability but also adhere to evolving standards and laws, exemplifying the company's commitment to responsible packaging.

SAVING €=175.000 /year ROI in less than 4 months



# technologies and actions for recycling in a view of circular economy.



# WAVE HELLO TO A MORE AFFORDABLE, SUSTAINABLÉ, LARGE BOTTLÉ



A new large PET mineral water bottle configuration, developed by SIPA's own Research & Development team, provides important savings for the customer while improving sustainability.

The eight-liter bottle has the same 38-mm neck size as a five-liter version, so changing between sizes in production takes relatively little time.

This makes an important change from the common practice among manufacturers of large bottles producing formats in various sizes.



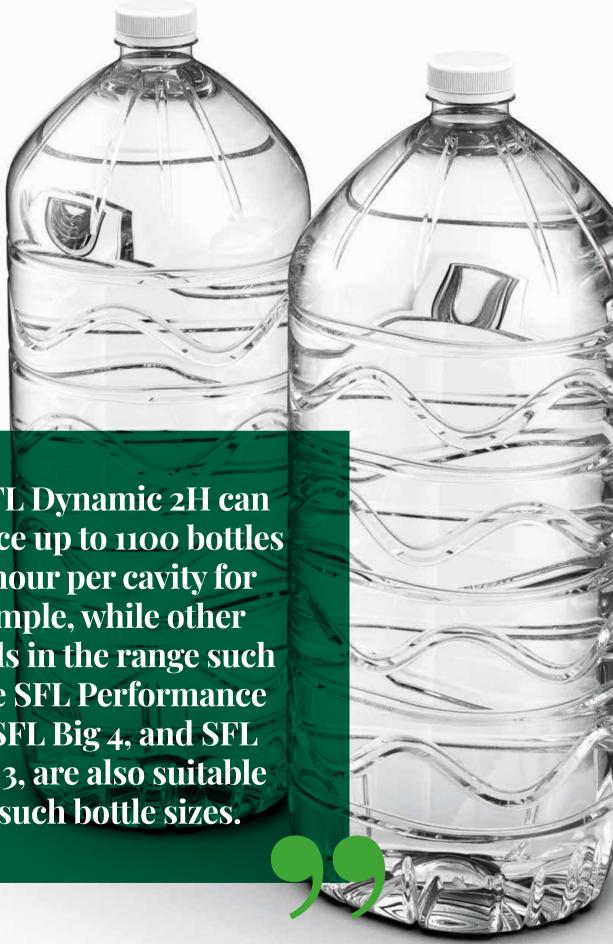
**Numerous** producers, most notably in Europe's Iberian peninsula, already provide **PET bottles in both** five- and eightliter formats, but the larger bottles are virtually always made with wider necks, 48 mm in diameter (the same as used for 10-L bottles).



This means that, when switching formats. time is needed not only to change the mold for the bottle body, but also for the neck. Using a 38-mm neck for both formats takes care of that issue. Plus, preforms with a 38-mm neck are lighter - around 6g lighter - than preforms with 48-mm necks, lower in cost, and more available. On top of that, caps for the narrower neck are easier to find on the market.

The SIPA design team created a special design for the 8-L container, with a very attractive and equally functional wave pattern that gives an optimal stretch ratio of the preform and also enables excellent top load and side load resistance levels which are obviously extremely important parameters for large format containers.

This was a really delicate development, made possible thanks to the high flexibility and versatility of the SIPA SFL linear stretch-blow molding platform.



An SFL Dynamic 2H can produce up to 1100 bottles per hour per cavity for example, while other models in the range such as the SFL Performance 3H, SFL Big 4, and SFL Maxi 3, are also suitable for such bottle sizes.



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SILVER | Top 15 ecovadis JAN 2024

# ACHIBYBDA REMARKABIE MILLESIONE

We are proud to share that we have been awarded a prestigious Silver Medal from EcoVadis, a testament to our commitment to sustainability.

This significant achievement places SIPA in the top 15% of companies assessed by **EcoVadis in the** last 12 months, specifically ranking at the 93rd percentile.

This recognition reaffirms our dedication to sustainability practices and showcases our ongoing efforts to make a positive impact on the environment.

Receiving the Silver Medal is not just an accolade for us; it's a symbol of the collective hard work, dedication, and conscientious efforts of the entire SIPA team.

We believe that sustainability is not just a goal but an integral part of our corporate ethos.

This accomplishment marks another stride in our sustainability journey, and we remain steadfast in our commitment to fostering positive environmental and social change.

Thank you to everyone at SIPA for contributing to this success, and let's continue to make a difference together.



www.sipa.it