

Performance through **Understanding**







PERFORMANCE
THROUGH
UNDERSTANDING

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Every day, millions of people around the world consume products packaged by our solutions. Wherever you live, you can walk into your local supermarket, shop or restaurant and see the result of our hard work: beverages, food, home and personal care products, all packaged with the goal of delivering maximum quality to consumers.

When you work with the Sidel Group, the end result is a solution that enables you to optimise your product packaging and grow your business. This is what we make possible every day.

Yet the world is changing faster than ever. Population growth, urbanisation, globalisation, technology, digitalisation and regulatory changes all affect our customers' end markets. Consumer trends are also changing, combining a focus on safety, quality and health benefits with a desire for increased convenience, transparency, authenticity and personalisation.

Now more than ever, our customers need strong, consistent performance. Performance that packages and protects their high-quality products reliably and predictably – every day. Performance that provides the flexibility and agility needed to cater to different packaging, product and production needs. Performance that minimises resource consumption and environmental impact – while achieving customised production at a lower cost.

Delivering this level of performance in a changing world requires understanding; you cannot have one without the other. It requires us to truly understand our customers' products, consumers, supply chains and production needs. To understand where they stand today, where they see themselves in the future and what they need from their equipment in order to achieve their goals – each and every day. All so that we can create tailored solutions that consistently deliver the exact performance they seek – no more, no less.

That is what we promise. That is what we deliver. We call it "Performance through Understanding".

A CHANGING WORLD AND A CHANGING INDUSTRY

Your business and the world it serves are both changing rapidly. Demographics are shifting, drinking habits are evolving, and technologies we could barely imagine 10 years ago are now commonplace.

GLOBAL TRENDS

Over the next 20 years, most populations will expand by at least 20%, and approximately 60% of the global population will soon live in cities, with demand for safe, high-quality beverages expected to double. Climate change will continue to impact daily life, with temperatures rising and natural resources shrinking.

Resource scarcity, as well as increased health, safety and environmental concerns will lead to more stringent laws and regulations across the globe. There will be calls for greater transparency and traceability of products, reduced consumption, improved nutritional content and more hygienic production. This is the reality facing the entire beverage industry – and it is our responsibility to address it.

- By 2030, demand for food, water and energy will double¹
- By 2050, global population will reach 8.3 billion a 20% increase²
- By 2030, 60% of the population will live in cities³

END-CONSUMER TRENDS

When it comes to beverage products, consumers drive demand. They have broader tastes, busier lifestyles and greater health concerns than before. With obesity and other health risks on the rise, consumers are paying increased attention to the content of their beverages and demanding more natural or organic products that offer the highest possible nutritional value and safety.

Social media's influence means that consumers want greater production transparency. They need convenient "on-the-go" formats that are easy to handle, store and transport.

Consumers understand the importance of recycling, which is widespread, and sustainability is now an important factor at every stage of the supply chain. The question is: how can you best match these everchanging consumer needs and habits?

- Higher consumer spending on organic, locally-sourced, fair trade, low carbon-footprint and eco-packaged products⁴
- Willingness to pay premium for a trusted and responsible brand⁴
- Demand for convenience, transparency, authenticity and personalisation, all driven by digitalisation⁴

TECHNOLOGY TRENDS

Production technology is experiencing rapid change, as well. Because of its potential to enhance efficiency and provide new, innovative business opportunities, Industry 4.0 is the current trend, with widespread integration of digital tools and the implementation of big data in manufacturing technologies.

Industry 4.0 comprises a range of innovative technologies designed to streamline and enhance the production process: autonomous technologies, supported by machine learning and big-data analytics realised through cloud computing and the Internet of Things; augmented-reality and simulations that can model a production's outcome before it even begins; and 3D printing that will optimise resource consumption to a previously impossible extent.

The integration of these innovative technologies into business operations represents a vast array of potential benefits for companies, including improved operational efficiency and resource management; optimisation of supply chain costs; reduced maintenance; new potential revenue streams; and business-model expansion

THE POTENTIAL OF INDUSTRY 4.0

Industry 4.0 could help to cut production time by up to

309

11111

Allow mass customisation of nearly all products.

Boost manufacturing efficiency by

25%

10-20%

Cost savings due to improved quality processes and troubleshooting

¹ Future food 2050, 2016. ² The world bank 2017. ³ Euromonitor 2016. ⁴ McKinsey & Company 2016 Repo

TWO BUSINESS UNITS. MANY MARKETS. ONE PURPOSE.

To better serve our customers, we have united two strong brands: Sidel and Gebo Cermex. Headquartered in Parma, Italy and part of the Tetra Laval Group, we are a leading provider of equipment and services for packaging liquids, foods, home and personal care products in PET, can, glass and other packaging materials.

With over 37,000 machines installed in more than 190 countries, we have nearly 170 years of proven experience, with a strong focus on providing our business partners with the advanced systems, line engineering and innovation that they need to reach their goals.

Our 5,000+ employees work tirelessly to deliver all types of equipment and services within primary packaging and secondary packaging, and through our sister-company, Tetra Pak Processing, we also supply processing equipment, enabling customers to work end-to-end with one partner. With our two business units, we are uniquely positioned to serve our customers' unique needs:

A: Sidel

SIDEL is a complete solutions provider that serves producers of water, carbonated soft drinks, liquid dairy products, juices, nectars, isotonics, soft drinks and teas. It is a leading provider of blowing, filling and labelling solutions for multiple applications, including food, home and personal care products.



GEBO CERMEX is a complete solutions provider for beer, wine and spirits, as well as food, home and personal care products, and a leading provider of material-handling, end-of-line and line-engineering solutions for multiple applications, including food, home and personal care products.

(Novembal is the third business unit of the Sidel Group. Novembal is a specialist in plastic cap design and injection, and a leading supplier of closures for the bottled liquid food market with over 50 years of experience. Predominantly based and operating in North America, Novembal is an independent subsidiary of The Sidel Group.)



THE SIDEL GROUP IN SHORT

A LEADING PROVIDER OF EQUIPMENT, SERVICES AND COMPLETE SOLUTIONS FOR PACKAGING LIQUIDS, FOODS, HOME AND PERSONAL CARE PRODUCTS IN







PET, CAN, GLASS AND OTHER PACKAGING MATERIALS

MACHINES INSTALLED

37,000+

COUNTRIES SERVED

190+

YEARS OF EXPERIENCE IN LINE ENGINEERING

170

EMPLOYEES (2016)

5,321

NET SALES (2016)

€1.43

ILLION

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ALL SUCCESS BEGINS WITH UNDERSTANDING

Delivering the performance you need requires that we continuously understand the challenges you face as a producer, and that we commit to meeting your particular goals. Since the best partnerships are based on communication, our first step is always to establish thorough dialogue on what makes your business unique:



World: What is your company's environmental impact, and which megatrends and consumption habits shape your world and business?



Market: Which consumer choices and trends do you want to match?



Supply chain: How is your product produced, distributed, sold, consumed and recycled?



Performance needs today: What are your individual performance criteria, and what are the targets you aspire to reach?



Performance needs over time: How do you expect your products, technology and production to change in the future, and how will we accommodate your performance targets over time as they change, as well?

The insight gained allows us to engineer solutions with equipment that performs according to your specific needs. We complement this dialogue by applying our strong technical knowledge and smart data analytics to maximise asset productivity over the lifetime of your production.



PERFORMANCE YOU CAN TRUST

We know that performance criteria and targets are individual, so we use our understanding to create tailored solutions that deliver value across your business.



END-PRODUCT VALUE:

Achieving the greatest value on your end product requires understanding of more than just your packaging – comprehensive knowledge of package-content interplay and a thorough grasp of your supply chain conditions, from concept to consumer, are also necessary.

PRODUCT SAFETY:

- Your customers must enjoy the same taste profile and experience every time
- Your product must remain protected across the entire supply chain
- Your production must exhibit the highest standards in hygiene, traceability and safety

BRAND DIFFERENTIATION:

- Your unique product should capture consumer attention
- Packaging should protect both your product and your brand
- Your packaging should clearly communicate product attributes
- You should be confident in our ability to provide long-term support

END-PRODUCT PROOF POINTS:

- Sidel RightWeight[™] bottles weigh 34% less than the average commercial bottle while achieving 32% greater top-load performance
- We employ 300 packaging scientists, engineers and designers
- 8,000 new bottle designs and drawings every year
- 100,000 bottle concepts analysed every year



PRODUCTION VALUE:

Delivering value on your production requires an understanding of your facilities and targets, so we can ensure that you have a solution that will reach your targets today – and tomorrow.

FLEXIBILITY:

- Produce packaging in various sizes, shapes and weights
- Experience high production flexibility, with multiple SKUs on one line
- Take advantage of flexible cost structures
- Benefit from faster time-to-market and shorter product cycles

RELIABILITY:

- Achieve maximum uptime and productivity
- Receive deliveries on time, every time
- Implement high-quality standards and processes
- Operate and maintain equipment safely and easily

BUSINESS VALUE:

Delivering business value means understanding your ambitions with regard to your financial results and the environment in which you operate. We are dedicated to helping you operate in an environmentally responsible manner without compromising on economic performance.

LOW TOTAL COSTS:

- Minimise both short- and long-term costs
- Optimise the balance between your capital and operating expenditure
- Reduce changeover times
- Lower resource usage
- Reduce production waste

SUSTAINABILITY:

- Reduce PET consumption by up to 30%
- Utilise innovative, renewable packaging materials to encourage reuse and recycling
- Improve cost-efficiency and reduce your carbon footprint with tested, proven eco-friendly equipment
- Prioritise sustainability with eco-friendly services designed to eliminate inefficiencies and increase savings

PRODUCTION PROOF POINTS:

- 37,000 + machines manufactured
- 50 locations worldwide
- 1,000 + packaging lines designed
- 1,000,000 original spare parts manufactured annually
- World's fastest, most flexible end-of-line solution for shaped personal care bottles
 up to 750 products/minute

BUSINESS PROOF POINTS:

- World's fastest bottle changeover 15 minutes
- 45% less oven energy used with Sidel Matrix[™] Blowers
- 34% lighter bottle with Sidel RightWeight™
- Up to 30% less energy consumed with Gebo Cermex pasteuriser
- Up to 50% less downtime with Gebo Cermex line efficiency tool (EIT™)

SIDEL GROUP – A ONE-STOP SHOP FOR ALL YOUR NEEDS

From stand-alone equipment to complete lines, Sidel Group solutions are designed to meet each of your business needs. Whatever your packaging material or market, whether your brand is starting out or mature, we have the equipment to take your production as far as you wish.



BLOWING

With 50 years' experience in blow moulding, we offer tailored solutions that cater precisely to your needs, with opportunities for diverse bottle shapes and formats, and unprecedented lightweighting potential.



DRY PREFORM DECONTAMINATION

Predis[™] is a unique, proven dry preform-decontamination solution developed through our extensive knowledge of sensitive product packaging, impressive aseptic expertise and innovative PET technology that is unmatched within the liquid packaging industry.



LABELLING

Whether you want roll-fed, sleeve, pressure-sensitive or pre-cut labels, all Sidel Group labelling solutions accommodate different label materials and types on the same machine. They are suitable for a wide variety of containers and products.



We offer preform conveyors; cap/ crown feeders and conveyors; container transport/accumulation systems; conveying modules for packs cases and crates; and distribution, laning and combining devices – all with operator-friendly controls and quick adjustment capabilities.

OVERWRAPPING & PACKING

Our versatile wrapping solutions are available in four infeed system configurations designed to fit any budget and production capacity.

We offer pneumatic selection channels (CLP), diagonal infeed systems (CCO), pin-gating selection (SDI) and regulated-flow selection (SFR).



FILLING

85 years of filling experience have given us the ability to produce solutions that boast the utmost precision and efficiency while still handling beverages smoothly and gently. We offer robust, reliable fillers for Cold, Hot, Aseptic, Cold-Chain and Ambient productions.



COMB

A competitive alternative to traditional lines that integrates preform-feeding, blowing, filling, labelling and capping into a single conveyor-free system, the Sidel Combi adds value by optimising line layout with a smaller footprint, improving production hygiene and efficiency while lowering operating costs.



TILTING & COOLING

Our tilting system ensures complete hot beverage contact and coverage, eliminating microorganisms and extending your product's shelf life. Our cooling system cools your product while avoiding thermal stress and preserving organoleptic properties.



PALLETISING & DEPALLETISING

Our palletising and depalletising equipment can meet any speed requirement. Four categories are available: layer-by-layer palletisers and depalletisers; gripping palletisers for high-speed crate handling; columnar palletisers for heavy loads; and robotic palletising and depalletising.



CRATING & DECRATING

We supply craters for one-way containers and decraters for returnable bottles, ensuring gentle handling. Solutions include sturdy, columnar craters and decraters; and high-performance multifunctional robots.



COMPLETE LINES

With over 40 years of experience in the development of complete line solutions, we help you optimise every production step. With packaging development, flexible and reliable equipment, tailored line design, efficient line supply and ramp-up, smart data and tailored Sidel Services™ for line maintenance and improvement, we ensure that you meet your objectives today and tomorrow, no matter the beverage type, packaging material, or market.

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OPTIMAL RESULTS ACROSS THE LIFETIME OF YOUR LINE WITH SIDEL SERVICES

At the Sidel Group, we know that long-term line performance is dynamic. Optimisation is needed at each stage of an asset's lifecycle, so our service portfolio helps ensure that your equipment performs as expected, or even better, regardless of when it was installed.

PACKAGING

Whether you need improved ergonomics, greater protection or a stronger look, we help you achieve more while also increasing product safety, minimising environmental impact and reducing costs – all with a fast time to market.

TRAINING

We offer customised training for everything from individual equipment maintenance and operation, to line design and optimisation – with the goal to ensuring a quick, effective start-up and positive asset performance.

MAINTENANCE

Our maintenance services help you reach production targets as quickly as possible; maintain consistent performance and uptime; and improve performance whenever possible, reducing Total Cost of Ownership (TCO) and maximising Return on Investment (ROI).

LINE DESIGN AND INTEGRATION

We offer best-in-class line engineering, applying a methodical, best-practice approach when supporting and optimising the design and performance of your line. This includes technical design, project

execution services and contract management responsibilities.

LINE ENGINEERING

With a multidisciplinary unit of expert specialists, we engineer solutions with an understanding of how your project's scope impacts its requirements. Proven methods and procedures are leveraged in conjunction with design and simulation tools that ensure every solution meets our customers' unique needs.

SPARE PARTS & LOGISTICS

As your original equipment manufacturer, we provide the original-quality spare parts your assets need. All spare parts are thoroughly tested to exacting specifications through real-world mechanical analysis and virtual stress-simulation, rated for maximum uptime and supplied under full warranty.

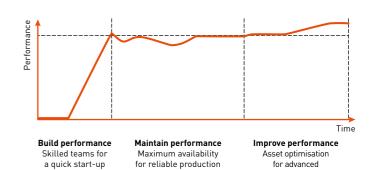
LINE IMPROVEMENT

We know that preparation is key in an industry defined by change. Our line improvement services help you extend asset lifecycles by implementing the latest technologies for improved efficiency and long-term performance.

LINE CONVERSIONS & MOULDS

Our knowledge of interaction between liquids, packaging and equipment allows us to deliver quick line conversions and ramp you back to full production as fast as possible, with no impact on product quality or efficiency.

ENSURE PERFORMANCE THROUGHOUT YOUR ASSET LIFECYCLE WITH THE SIDEL GROUP SERVICES



competitiveness



As a key player in the "Factory of the Future" movement, our Agility 4.0 capabilities bring Smart Factories to life.

We are speeding up the pace of consumption behaviours, balancing mass production with mass customisation at affordable cost. Ultimately, we deliver solutions that will enhance the transformation of packaging.

At the Sidel Group, the technology behind the factory of the future is known as "Agility 4.0TM" and is supported by five pillars:



VIRTUAL FACTORY

Control your costs and make the right decisions with high-precision 3D scans, simulation-based modelling and virtual-reality tools.

- Optimise capital expenditure (CAPEX) and maximise your return on investment
- Maximise asset utilisation with simulation
- Increase execution success rate
- Improve safety and operability with correct ergonomics



SMART FACTORY

Maximise operation flexibility and efficiency with smart, innovative robotic technologies and intelligent equipment that predicts, solves and self-regulates.

- Improve performance over time
- Improve safety, ergonomics and operability
- Ease of operation and a high operability
- Get the benefit of affordability



CONNECTED FACTORY

Sustain high performance and achieve high flexibility with efficiency-improvement tools, data acquisition, line monitoring, remote assistance and smart monitoring of your equipment.

- Sustain maximum performance over time
- Detect, assess and resolve issues quickly
- Reduce repair time with fast troubleshooting and remote
- Prevent unplanned stoppages
- Maximise asset utilisation
- Ensure easy and effective maintenance



SUSTAINABLE FACTORY

Reduce energy and water consumption with smart energy management and the use of new materials, line-energy simulation, 3D-printed components and more.

- Optimise energy consumption and material usage for reduced waste
- Link energy consumption and line performance via line-energy simulation
- Identify unusual water consumption



EXTENDED FACTORY

This innovative "dematerialised layout" approach revolutionises traditional packaging line and factory concepts through late customisation and automated guide-vehicle capabilities.

- Achieve maximum flexibility
- Improve performance over time and maximise asset utilisation
- Customise your mass production
- Increase your SKU portfolio
- Achieve a shorter time to market
- Reduce waste, storage and repacking

MOVING FORWARD WITH PURPOSE AND RESPONSIBILITY

At the Sidel Group, we believe that sustainable practices and good business go hand-in-hand to the benefit of all. We understand that we play an active role in protecting the environment and, by extension, our future.

SUPPORTING OUR PEOPLE

People form the heart of our organisation. We recognise the diversity, development and well-being of our people as essential to both society and our success as a company.

CREATING SHARED VALUE

Together with our customers, suppliers, external partners and, most importantly, the communities in which we do business, we aim to create shared value. Close collaboration and dialogue with our partners is central to the growth of a sustainable industry.

KEEPING PRODUCTS SAFE

Packaging must meet strict hygienic, safety and regulatory requirements, without compromising quality. The same is true for production equipment and services: every part must be carefully designed and produced to meet these requirements.

ENSURING ONGOING SUCCESS

Our business is sustainable because we deliver on our goals, be they financial, operational or otherwise business-related. At the same time, our strong Corporate Governance focus ensures that all of our stakeholders, including customers, employees and the communities in which we operate, are well protected.

COMMITTING TO A SUSTAINABLE FUTURE

As a leading solutions provider in the beverage packaging industry, environmental issues are an important focus for both ourselves and our customers. Our business is built with the aim to conserve the planet's resources in an ethical, socially responsible manner.



HOW WE MAKE A DIFFERENCE IN THE WORLD

70%

REDUCTION IN BLOWER ENERGY CONSUMPTION WITH SIDEL ECO

100%

DRY DECONTAMINATION OF BOTTLES AND CAPS WITH NO WATER USING SIDEL ASEPTIC COMBI PREDIS™

25%

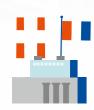
REDUCTION IN WATER
CONSUMPTION WITH GEBO
CERMEX SWING™ PASTEURISERS

40%

REDUCTION IN ENERGY CONSUMPTION WITH ECO TUNNEL KIT FOR GEBO CERMEX EVOFILM™ SHRINK-WRAPPER

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DELIVERING PERFORMANCE THROUGH UNDERSTANDING **FOR MORE THAN 160 YEARS!**



GEBO IS FOUNDED

Gebo is founded in Reichstett, France by Gustave Schoen, specialising in engineering and conveying.



ASEPTIC PACKING

Remy introduces the world's first aseptic filling technology for ultra-high temperature (UHT) milk in HDPE bottles.





Sidel introduces the world's first SB0 commercial production solution for PET beverages, with the SBO blower for carbonated soft drinks, with output at 3,600 bottles per hour.



ROBO KOMBI

Cermex manufactures the first Robo Kombi palletizer. In the same year, Cermex launches a new side loading case packer with cantilever-design.



SIMONAZZI JOINS TETRA LAVAL

Simonazzi joins the Tetra Laval Group and merges with Sidel to create a company capable of providing complete liquid-packaging solutions for the beverage industry. The newly expanded Sidel launches its third-generation of blowers, the SBO Universal, capable of producing 1,800 bottles per hour

per mould.



GEBO CERMEX EVOFLEX

The newly founded Gebo Cermex introduces the EvoFlex range of versatile single-column palletising solutions for optimised productivity.



The Sidel Group introduces its Agility 4.0 programme, to provide customers with the "Factory of the Future" through smart technologies.



















THE START IN PARMA

Simonazzi Workshops is founded in Parma, Italy by Pompeo Simonazzi, who sees an opportunity to offer mechanical equipment to local farmers. In the following years, Simonazzi extends its capabilities to filling and bottling of beverages.



SIDEL IS FOUNDED

Sidel is founded in Le Havre, France by Georges Lesieur, evolving from Lesieur Group's Lightweight Packages division. The name is an acronym resulting from original French, "Société Industrielle Des Emballages Légers," or "Industrial Company of Light Packaging.'



CERMEX IS FOUNDED

Cermex is founded in Corcelles lès Cîteaux, France, and becomes a leader in case-packing and palletising.



HOT FILL

Sidel invents heat-resistant (HR) technology for the first-ever packaging of juices, isotonics and teas in hot fill/ pasteurisable PET.



TETRA LAVAL

The Sidel Group, including Gebo and Cermex, joins the Tetra Laval Group, becoming one of its three main industrial groups alongside Tetra Pak and De Laval.



SIDEL RIGHTWEIGHT

Sidel launches the RightWeight™ concept bottle for still water, the lightest in the world with a 30 kg top-load.



SIDEL SUPERCOMBI

The Sidel Group launches Super Combi, integrating five process stations (preform, blowing, labelling, filling and capping) into a single system for optimised carbonated soft drinks and water production.







PERFORMANCE THROUGH UNDERSTANDING

THAT IS WHAT WE DELIVER. THAT IS OUR PROMISE.

The Sidel Group is formed by the union of two strong brands, Sidel and Gebo Cermex. Together, we are a leading provider of equipment and services for packaging liquid, food, home and personal care products in PET, can, glass and other materials.

With over 37,000 machines installed in more than 190 countries, we have nearly 170 years of proven experience, with a strong focus on advanced systems, line engineering and innovation. Our 5,000+ employees worldwide are passionate about providing complete solutions that fulfil customer needs and boost the performance of their lines, products and businesses.

Delivering this level of performance requires that we continuously understand our customers' challenges and commit to meeting their unique goals. We do this through dialogue, and by understanding the needs of their markets, production and value chains. We complement this by applying our strong technical knowledge and smart data analytics to support maximum lifetime productivity to its full potential.

We call it Performance through Understanding.

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