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Sidel's two complete PET lines help Almarai benefit from booming juice market in Saudi Arabia



Almarai, the leading producer of liquid dairy and juice products in the Middle East, recently approached the Sidel Group to increase its production capacities around orange juice distributed via cold chain. With high speed and reliability of the line coupled with great product quality among the top requirements from this customer, the global provider of equipment and services for the liquid packaging industry was the ideal partner for the job.

Since its founding in 1977, Almarai has grown via strategic investments, becoming the largest producer and distributor of food and drink in the Middle East with a market capitalisation exceeding \$12.5 billion. The company's main objective has always been the commitment to consumer satisfaction, maintained by the drive for constant innovation. In fact, Almarai's production, marketing, and distribution structure enables the daily distribution of products to over 110,000 retail outlets across the six Gulf Cooperation Council (GCC) countries¹, plus Egypt and Jordan.²

Bold consumer preference for juice drinks

When Almarai recently reached out to Sidel, they needed to increase the production capacity around the single-serve format of its orange juice (200ml) bottled in PET and handled under

¹ The Gulf Cooperation Council (GCC) includes The United Arab Emirates, Bahrain, Saudi Arabia, Oman, Qatar, Kuwait and Yemen.

² Almarai Corporate Brochure 2017



cold chain distribution. This opportunity was especially driven by the great consumer preference around it: part of a range offering twenty taste possibilities, as such perfectly reflecting the major trends impacting the beverage market in Saudi Arabia. There, the search for more healthy and natural formulations is expected to influence juice sales considerably.³

With the leading position in the juice market, Almarai decided to install two new Sidel PET complete lines, each one handling 54,000 bottles per hour (bph), in the Al Kharj central processing plant (CPP).

State-of-the-art packaging solutions for top efficiency

For Almarai, quality is the founding principle, upholding the company's commitment to achieving the highest standards on behalf of its consumers and hence its motto: 'Quality you can trust'. With Sidel pioneering PET production for more than 35 years and leveraging a longstanding expertise as a complete line provider, they looked perfectly established to partner with Almarai in the quest for exceptional manufacturing and processing capabilities. The largest food manufacturer and distributor in the Middle East strives to operate to the highest standards of international best practice, starting from the processing step: the two new PET complete lines installed at the Al Kharj production site – the first ones Almarai awarded to Sidel – employ the processing equipment and capabilities of Tetra Pak Processing Systems (TPPS). This represents a further testament of a successful cooperation, benefitting from experience and learnings gained in nearly 100 joint complete line projects from around the world. The TPPS process equipment captures the natural taste of the product and ensures it is safe to drink.

Anurag Sharma, Sidel Sales Manager in Saudi Arabia, explains, "The key challenge was to find a solution able to ensure greater efficiency, so as to strengthen profitability and optimise Total Cost of Ownership (TCO). All of this without compromising top product quality, a must-have for Almarai considering the great sales performance of its orange juice. To address this within the two complete lines, Almarai opted for the Sidel Combi. Integrating blow moulding, filling and capping processes into a single system, the Combi reduces operating costs and uses up to 30% less floor space compared to traditional standalone equipment. Using fewer component machines, the solution offers up to 4% higher efficiency levels than standalone machines, on top of lower energy consumption and faster format changeovers. This results in a reduction of operating costs by up to 12%, saving labour, raw materials, and spare parts."

The two Combis supplied to the Al Kharj site are equipped with a Sidel SF100 filler, ensuring optimum uptime and the highest productivity. Its 'dual speed' valve allows consistent performance and the best drink quality, especially when handling beverages with pulps.

³ Euromonitor 2018



Additionally, both magnetic flowmeters and filling valves are equipped with plungers, leading to higher accuracy and more efficient filling and cleaning. In fact, the system allows for no clogging and an easier removal of pulp residual. For greater product safety and ease of operations, the tight enclosure with HEPA filter allows for top hygiene, while Cleaning In Place (CIP) requires no intervention from operators thanks to the automatic dummy bottles.

Sidel's proven and versatile RollQUATTRO Evo labeller complements the Combi. Primarily using wrap-around Roll-Fed technology to apply either paper or plastic labels with hot glue, it delivers all the flexibility needed to match Almarai's needs when processing lightweighted containers and extremely thin labels at very high speed.

A high performance end-of-line system for greater flexibility and pack quality

Benefitting from Sidel Group's expertise as a full solution partner, Almarai went for Gebo Cermex's solutions to optimise its end-of-line performance. Two shrink-wrapping systems have been installed to manage three different pack configurations: 6x4, 2x3 and 2x3 bottles as clusters. For additional flexibility at a very high speed (67,500 bph in overspeed), a shrink-wrapper is handling single squared bottles in mass flow, putting them in tray plus film, while the other one is managing both single bottles and cluster packs of bottles through special selection fingers with rollers identifying the clusters according to product grouping or batch. To ensure a consistent and reliable output for greater pack quality – a challenging objective considering the small diameter of the bottle – the machine has been suitably equipped with a 3D inspection camera, detecting missing containers in the tray before shrink-wrapping them. Moreover, the shrink-wrapper's extractable injection table allows for easy maintenance and stable film handling.

To guarantee greater energy savings and up to 10% TCO reduction, the shrink-wrapping systems are combined with two Gebo Cermex EvoFlex® palletisers, offering unparalleled flexibility and efficiency even with high-speed applications. The only palletising system with a low-level infeed capable of running at up to 12 layers per minute, EvoFlex offers significant advantages in terms of ergonomics, energy consumption, and safety. The solution is equipped with AxoSmart, the layer preparation system designed by Gebo Cermex to meet the need for more eco-friendly packaging (lightweight bottles and less secondary packaging) and a wide product portfolio. With a modular design allowing for smooth adaptation to various line speed requirements, AxoSmart offers the possibility to handle a high number of pack types in the same cycle; all of that, without compromising on optimal stability and reliability.

Operational intelligence to support continuous improvement

The two PET complete lines installed at the Al Kharj plant are featuring Sidel Group's EIT® (Efficiency Improvement Tool), a market-leading data acquisition and plant intelligence system.



It automatically records 24/7 raw production data, calculates a wide array of KPIs to help measure performance, analyses production issues, detects efficiency loss sources, and performs root cause analyses. Currently installed in more than 70 countries, it is designed to ultimately decrease unplanned downtime, reduce waste and costs, and increase the plant's output as it gives employees at all levels of the organisation real-time access to relevant and actionable information on production-related issues. As an additional bonus feature, the EIT version leveraged by Almarai comes with the ECO module, monitoring and measuring energy and utilities consumption at equipment and line level. On top of providing energy cost per produced unit, the system establishes correlations between consumptions trends (including power, water, steam or compressed air) and line events or production phases for improving performance over time.

The two lines started to work in the last quarter of 2017, both beyond 98% of efficiency, with products available in the market as of the same period. Given the remote location where the Al Kharj plant is based, Almarai benefitted from Sidel's fast reaction time and expertise, key for replacing spare parts and solving technical issues. Based on this positive experience, Almarai recently established monthly technical visits to properly control and monitor the line's performance.

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About Sidel Group

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**.

Find out more at <u>www.sidel.com</u> and <u>www.gebocermex.com</u>, connect with us and get the latest updates on Twitter

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