

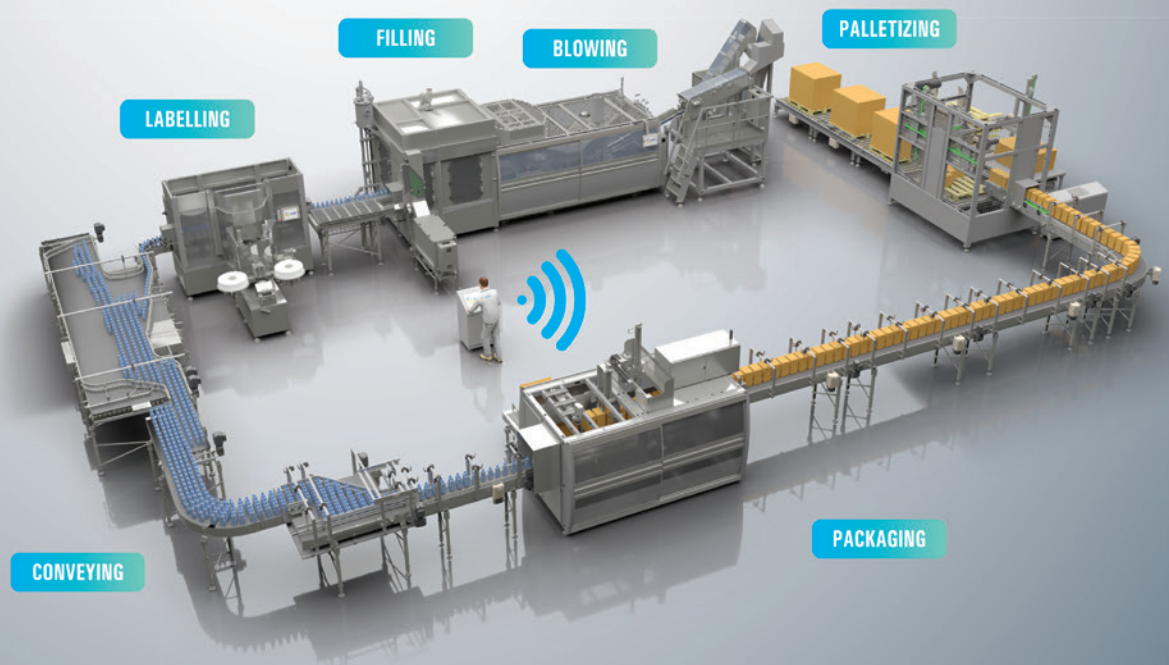
DESIGN WITH US YOUR CIRCULAR PACKAGING



IMPROVING YOUR CARBON FOOTPRINT IS EASY WITH SMI!

Our bottling and packaging systems benefit from Industry 4.0 and IoT technologies, can process recyclable materials such as rPET and allows for considerable energy savings.

Find out our solutions for packing a wide range of containers up to 50,000 bottles/hour.



SMI solution for a competitive market

The case history of Valley Water for the bottling of Elano water

The companies influenced by the trend of strong product diversification, need very flexible and efficient bottling and packaging plants in order to reach high levels of competitiveness and optimization

of production lines.

SMI manufactures bottling plants and packaging machines with an innovative design, equipped with IoT technology, providing to its customers, located all over the world, with smart solutions, able to meet their requirements in terms of **competitiveness, production efficiency, operational flexibility, energy saving, easy management and monitoring of the whole production process.**

Valley Water invests in a modern 36,000 bph PET plant

In the desert area of Wadi El Natrun, a depression about 23 meters below sea level, Elano water is extracted and bottled by the Valley Water company.

To increase the production of 0.6 L and 1.5 L PET bottles, the Egyptian company recently turned to SMI for the supply of a **complete line of 36,000 bottles/hour**, which is currently the most modern plant installed by SMI within the African continent and is the ideal solution to ensure efficient, sustainable and high-quality production.

Investing in new technologies to increase efficiency and productivity

To preserve the quality of Elano water and offer consumers a pure, uncontaminated and healthy product, Valley Water pays great attention to every detail and, collaborating with the experts of the industry, invests in cutting-edge technologies, such as the recent bottling and packaging system supplied by SMI.

The decision to rely on SMI for the supply of a new **complete line of 36,000 bottles/hour** for the bottling and packaging of Elano water in PET bottles ranging from 0.6 to 1.5 L is the result of a close collaboration between the two companies, that began in 2013 with the installation of a rotary stretch-blow moulder and a shrink wrapper from the LSK range for the packaging of 0.33 / 0.5 / 1.5 L containers in PET.

SMI has also been involved in the process of **automation of the end of the line of the pre-existing plant**, to allow Valley Water to meet the growing demand for bottled water in Egypt, a market featuring one of the highest levels of consumption per capita in the world and in which consumers tend to choose healthy drinks. The new technologies supplied by SMI allow the company to achieve greater production capacity and efficiency, improved market competitiveness, high energy savings and reduced environmental impact.

Restyling of the bottles to improve performance

The main aspects considered by SMI designers for the Valley Water project were: on the one hand, the study of the line layout to ensure optimal use of space, high quality, production efficiency and plant flexibility; on the other hand, the analysis of the design of existing bottles, making the know-how acquired in the design of PET containers available to the customer.

Starting from the containers used by the customer and keeping the "core concept" unchanged, SMI's designers studied the restyling of the 0.6 and 1.5 L bottles, produced by the new ECOBLOC® integrated blowing-filling-capping system, aiming to emphasize the iconic image represented and to improve the resistance and stability of the containers.

These objectives have been punctually achieved by enlarging the maximum diameter of the bottles and lowering their height, with the result of optimising the centre of gravity of the same.



The base of the bottle was also subject to a restyling process, with the aim of improving the mechanical properties of the containers during filling. Thanks to these measures and the supply of new moulds for the stretch-blowing of 0.6 and 1.5 L bottles of Elano water, now also produced by the 6-cavity stretch-blow moulder supplied in 2013, the entire packaging and palletising process of the Wadi El Natrun plant has become more efficient and sustainable.

SMI solutions for Valley Water

Consumer purchasing choices are also strongly influenced by environmental issues. To demonstrate its commitment to supporting sustainability issues, the Egyptian company Valley Water uses PET bottles as eco-compatible and recyclable packaging of Elano water, produced in factories equipped with the latest generation green technologies that allow reduced environmental impact and significant energy savings. The complete line of 36,000 bottles/hour supplied by SMI to Valley Water for the bottling of Elano water, allows the customer to optimise the space within the production plant to have an efficient and performing line able to meet the growing demands of the Egyptian market for a high-quality product. The new turnkey system consists of an **EBS 16 E ERGON ECOBLOC® stretch-blow moulder with a HEVF filling and capping system; a WP 600 ERGON case packer; an APS 3070 L ERGON palletiser;** conveyor belts, labelling machine, encoder and control systems.

Main advantages

ECOBLOC® ERGON HEVF blowing-filling-capping system:

- Compact solution for the blowing and filling of 0.6 L and 1.5 L PET containers: rinsing machine and air conveyors between the blower and the filler are not required
- Reduced energy consumption
- High-efficiency rotary stretch-blow moulding system equipped with motorized stretch rods, for productions up to 36,000 bottles/hour
- Precise management of the stretch rod stroke and accurate control of its position, as well as significant energy saving



- Preform heating module with energy-efficient IR lamps
- Two-stage air recovery system, which enables to reduce energy costs
- Easy management of the format changeover
- Filling system with high-precision flow meters installed near each tap
- Walk-in frame to easily access the filler and capper
- Filling chamber completely isolated from transmissions that do not come into contact with any type of liquid
- The machine frame is inclined towards the drainage points resulting in a higher level of hygiene

WP 600 ERGON wrap-around case packer:

- Continuous packaging through a wrap-around system: smooth production process, without jerky movements
- Ideal solution for packaging in impact-resistant 4x5 cases (0.6 bottles) and 3x4 cases (1.5 L bottles): higher protection of the product during transport
- Possibility to graphically customize the cardboard box

Extremely ergonomic machine structure

- Easy and safe maintenance operations
- Highly intuitive, graphical interface, touch-sensitive screen and advanced real-time diagnostics and technical support.

APS 3070 L ERGON automatic palletizing system:

- Single-column system with two Cartesian axes for palletizing cardboard boxes arriving from the WP 600 ERGON in 1000x1200 mm pallets
- Extremely flexible modular structure, easily adaptable to the logistical conditions of the line
- High operational flexibility that allows the creation of multiple palletizing patterns
- Eco-sustainable solution, thanks to the use of ICOS motors equipped with integrated digital servo-drive (driver)
- Optimized TCO (Total Cost of Ownership) thanks to low management and maintenance costs.

