



**S**MI: functional and sustainable packaging

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.

Furthermore, in an economic environment that is increasingly oriented towards eco-friendly solutions in the use of plastic packaging, a growing number of companies have chosen to use rPET (100 % recyclable PET) bottles and cutting-edge technical solutions, like those supplied by SMI, in order to save energy and reduce the production environmental impact.

**SMI solution for competitive market!**

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.

**Green solutions for the primary packaging**

The EBS ERGON series of stretch-blow moulding, available both in "stand alone" version and in "combi" version, integrated with filling and capping systems (ECOBLOC® ERGON series), ensure high performances in the stretch blow-moulding of rPET, and PET bottles of different shapes and capacities from 0.10 L up to 10L mainly used for the food, beverage and detergent

industries, able to meet production requirements up to 50,000 bottles/hour. Thanks to high-tech components, low maintenance and running costs and great quality/price ratio, SMI machines are the best solution for producing plastic containers.

**Main advantages of EBS ERGON series**

- Stretch-blow moulding system based on a high efficiency rotary technology, equipped with motorized stretch rods for a precise management of the stretch rod cycle and a significant energy saving;
- Ultra-compact plant: the preform heating section is integrated with the stretch-blow moulding section in a single module;
- Reduced energy consumption, thanks to the preform heating module equipped with high efficiency IR lamps and to the stretch-blow moulding module equipped with a double stage HP air recovery system;
- Ergonomic structure that ensures an easy maintenance and a high safety level;
- High performance low dead volume valves, that reduce pre-blowing and blowing times, therefore improving efficiency and quality of the bottles;
- Easy and fast format changeover, thanks to MotorNet System® automation and control system that ensures constant maintenance of the optimum processing parameters and the direct modification of the machine settings.

**The advantages of the ECOBLOC® ERGON integrated solutions of blowing-filling-capping.**

- The integration of stretch-blow moulding, filling and capping functions into a single machine allows to considerably reduce costs, as well as the space occupied by the solution, since the rinser and conveyors between the stretch-blow moulder and the filler are not needed. This also leads to

reduce contamination risks and to reach a higher hygiene level.

- High-efficiency rotary stretch-blow moulding system equipped with motorized stretch rods, whose functioning, controlled electronically, does not need mechanical cams. This allows a precise management of the rod path and an accurate control of its position, as well as a significant energy saving.

- The carousel blowing process has been reduced, thus making the stretch-blow moulder more efficient by 17%.

- The filling process is extremely precise, thanks to the use of the flow meter, an electronic device installed near each valve that detects the flow of the product that fills each bottle by counting the pulses and sends the filling valve the closure sign, once the value of the format in use is reached.

- A wide range of products can be filled thanks to the valve terminal that is changed according to the type of product.

**Design of sustainable containers**

Today all the main food and beverage manufacturers aim at promoting sustainable lifestyles in compliance with circular economy and support the importance of the responsible use of resources and recycle. Their commitment starts from the use of PET plastics: a 100% recyclable and regenerable material.

Thanks to an advanced CAD center for 3D design, SMI supports companies in the design and graphic realization of a wide range of 100% recyclable PET containers, featuring high quality and lightweight in order to save energy and material.

**Solutions for tethered caps**

The tethered caps, that stay attached to the bottle after having been opened, will become an object of everyday use for European consumers from 2024, when

2019/904 directive will enter into force. SMI, aware of the challenges posed by this directive to beverage manufacturers, offers solutions for producing containers with a percentage of recycled PET in compliance with 2019/904 and supports customers in order to evaluate the right tethered cap solution.

**Green solutions for secondary packaging**  
Within secondary packaging, SMI offers a wide range of automatic machines for packing in an efficient and eco-sustainable way several types of containers with an output up to 450 packs per minute (in triple lane) and applications that ensure energy saving.

Depending on the type of product to be packed and on the reference market, it is possible to choose the most appropriate packer among a wide range of automatic shrink wrappers for secondary packaging in stretch or recyclable film or among packers that use corrugated, kraft or Arcwise® cardboard.

All automatic packers produced by SMI are inspired by Industry 4.0 and Internet of Things (IoT) concepts and ensure cost reduction, energy saving, environmental sustainability and increase in competitiveness.

**Flexible market-driven organization**

In a global market where competition is getting fiercer and fiercer, the possibility to guarantee a "next door" service is for SMI a key factor to effectively and successfully support customers wherever they are, where local staff, who has been previously trained in Italy, is able to assist customers efficiently responding to their requests. For this purpose, SMI operates outside Italy through a widespread network of branches and representative offices.

