

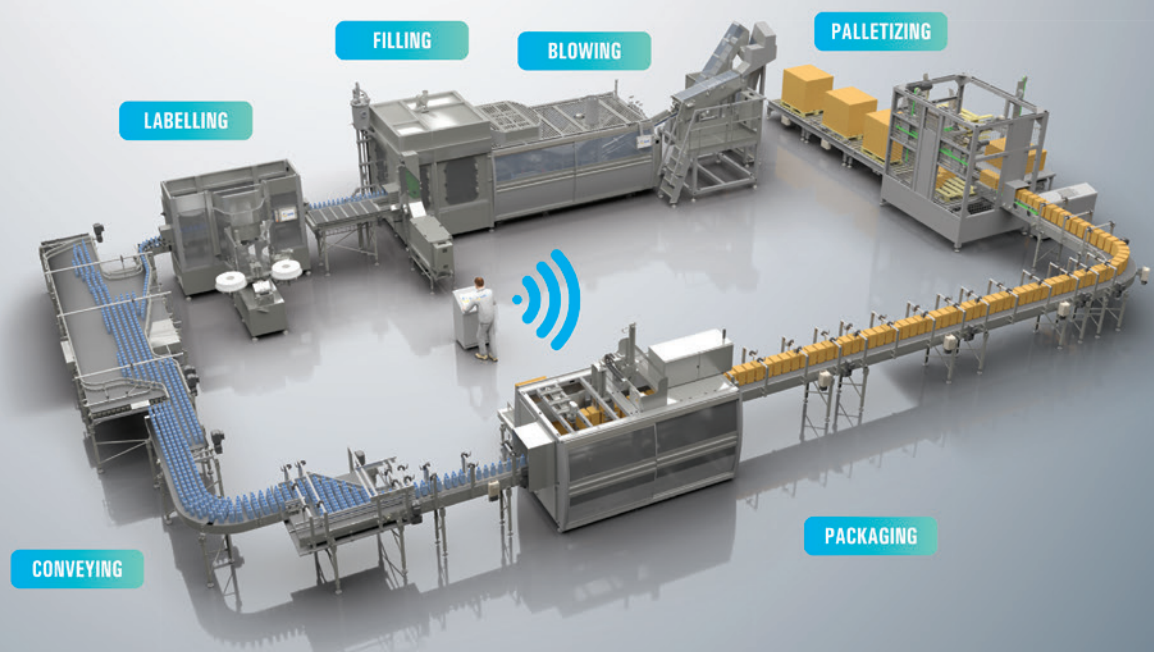
# DESIGN WITH US YOUR CIRCULAR PACKAGING



## 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 solutions for high-capacity containers



Producing and filling PET containers with a large capacity of up to 10 L, all with a single machine, is increasingly the optimal solution for producers of mineral water and table oil, and SMI offers them the best innovative solutions

**P**roducing and filling PET containers with a large capacity of up to 10 L, all with a single machine, is increasingly the optimal solution for producers of mineral water and table oil. This compact and flexible solution offers numerous advantages in terms of reducing production costs, since the system does not require the presence of a rinser. In addition, the **ECOBLOC® ERGON system**, does not need conveyor belts between the blow moulding machine and the filler and the relative accumulation, thus guaranteeing a controlled and flexible production process. All this translates into greater efficiency, for the management of the entire wet part of the bottling line by a single operator on an extremely compact surface, while improving the sustainability of production, thanks to reduced energy consumption. (foto 1 - ECOBLOC K HEVS)

**Eco-sustainable containers for large productions**  
From the point of view of size, "high-capacity" containers, such as 5, 8 and 10-litre bottles, are arousing growing interest from companies in the beverage sector, that are attentive to "green" and energy-efficient solutions for their plants. The use of large bottles, allows to bottle a certain volume of product in a smaller number of containers, thus reducing the logistic, handling and disposal costs of the entire supply chain. SMI has decades of experience, both in the construction of machines for the production of large capacity containers, and in the design of bottles that meet the functional and aesthetic needs of customers. Thanks to an advanced CAD centre for 3D design, SMI invests in innovative solutions to produce rPET bottles of all sizes and shapes, 100% recyclable, resistant, light and energetically "virtuous".

**In China, the company Huihuang United Food chose the integrated system ECOBLOC® ERGON by SMI**  
The consumption of bottled water is constantly growing in every part of the world. In China, for instance, in the first quarter of 2023 alone, the sales of bottled water increased by 10.9%. In this scenario, the main companies in the beverage industry, such as Huihuang United Food, keep investing in increasingly modern and efficient plants, such as the integrated blowing-filling-capping system ECOBLOC® ERGON by SMI, recently installed in Tianjin for bottling C'estbon brand products in 4.5 L PET containers. The history of Huihuang United (Tianjin) Food starts in 2011, when the company was founded as a subsidiary of Macau Huiyang International Investment Co., a company belonging to the industrial giant Zhuhai Zhongu for bottling beverages of different brands, such as Coca-Cola and C'estbon.



**SMI solutions for Huihuang United Food**  
The cooperation between Huihuang United Food Co. (Tianjin) and SMI started 12 years ago with the purchase of some shrink wrappers for packing bottles under the brand Coca-Cola. The installation of the first 6-cavity stretch-blow moulder for the production of 4.5 and 6 L PET containers under the brand C'estbon dates back to 2015. Thanks to the last investment that led to the purchase of the ECOBLOC® ERGON system, the first supplied by SMI in China, the company was able to increase the production of 4.5 and 6 L formats, which are in high demand by the market, and to further increase the quality and technological profile of the adopted solutions.

**ECOBLOC® ERGON 6-16-4 HC HEVF stretch-blowing/filling/capping system**  
Containers worked: 4.5 and 6L PET containers of C'estbon natural water.

- Main advantages**
- Compact solution for stretch-blow moulding, filling and capping large capacity PET bottles
  - Does not require a rinsing machine and air belts between blower and filler
  - Precise and fast filling and capping process, thanks to the electronic control system of operations, motorised stretch rods and the use

- of high-efficiency valves controlled by flow meters
- Reduced energy consumption
- Energy-efficient IR preform heating lamps
- Two-stage air recovery system, which reduces energy costs for high-pressure compressed air production
- Filling valves that manage two speeds in order to fill homogeneously, efficiently and without product spilling from the container. The duration of the filling cycles (slow or fast) can be managed in a simple and intuitive way through the recipes in the human-machine interface (HMI Posyc®)
- Reduced maintenance and management costs of the plant.

- Easy-cap cap elevator /sorter**
- Function: gravitational cap sorter, which takes the caps from a hopper and turns them correctly until they reach the bottling line.
  - Main advantages:
    - very compact structure, made of AISI 304 steel, suitable for any layout solution
    - Smooth and linear operation, that will only carry the caps that are in the correct position
    - System suitable for different types of plastic caps
    - User-friendly operator interface, which allows easy and efficient use of the machine by the operator.

**Solutions for "tethered caps"**  
The anchored caps, which remain attached to the bottle after being opened, will become an everyday object for European consumers from 2024, when the EU Directive 2019/904 comes into force. This new European Union measure establishes the minimum percentage of recycled material that must be present in plastic bottles used for bottling beverages (25% from 2025 and 30% from 2030); moreover, it states that the so-called "tethered caps" on PET and rPET bottles must remain attached to the container, so that they can be recycled together with the bottle, avoiding dispersion in the environment. Aware of the challenges that this new legislation poses to food and beverage manufacturers, SMI have studied a series of innovative solutions to produce rPET containers compliant with Directive 2019/904, supporting customers in choosing the type of bottle and tethered cap that best meets their specific needs.

