

# SMI: When the container becomes *competition*

The continuous investments in Research & Development have led to the production of even more compact, economic, and eco-friendly machines, such as the EBS 3 K ERGON for the stretch-blow moulding of 0,32 L, 0,41 L and 0,5 L PET containers installed at Tsumagoi Meisui Co. Ltd. in Japan



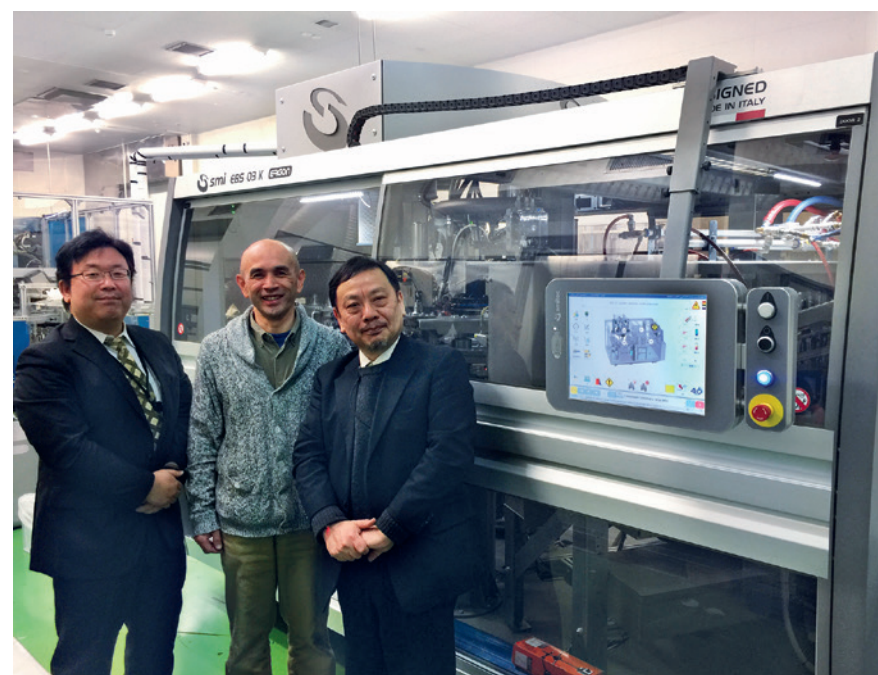
**S**MI designs and manufactures bottling plants and packaging machines with an innovative design, equipped with IoT technology, providing to its customers, located all over the world, with smart solutions, able to meet their requirements in terms of competitiveness, production efficiency, operational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

The continuous investments in Research & Development have led to the production of even more compact, economic, and eco-friendly machines, such as the **EBS 3 K ERGON** for the stretch-blow moulding of 0,32 L, 0,41 L and 0,5 L PET containers installed at **Tsumagoi Meisui Co. Ltd. in Japan.**

**Invest to be more prompt**  
The strong growth of the bottled water market in Japan, has made it necessary for Tsumagoi Meisui to expand. In July 2018, to be able to

face an increase in production, the need to reduce delivery time for the water in PET bottles under the brand Tsumagoi and Ok-Karauizawa, the Japanese company invested in a new EBS K ERGON stretch-blow moulder. This new installation, supplied by SMI, was installed in the existing factory in the town of Tsumagoi, District of Agatsuma (Prefecture of Gunma), and it was designated for the production of water and is equipped with the most modern technology within this sector.

**Invest to be more efficient**  
Increasing storage capacity and reducing distribution costs, are the presuppositions for increasing production, efficiency within a bottling plant. The third plant belonging to the Japanese company, Tsumagoi Meisui, inaugurated in December 2018 and inside which the new EBS 3 K ERGON stretch-blow moulder supplied by SMI was installed, was built with the aim to store products coming from the other production lines in the other two plants. However, various reasons, such as the strong growth of the request from the Japanese market for bottled water and the necessity to upgrade the production structure, pushed the company into also investing in a new bottling line. The production volume of the



existing line was around 120,000 cases per month, and now thanks to the new SMI machinery, which was recently installed, they will be able to reach a capacity of 150,000 cases/month. The storage capacity of this third plant, will not only allow Tsumagoi Meisui to store up to 20 days of production, it will also reduce logistic costs by around 6%, by eliminating storage and transport costs between the five warehouses they had previously rented.

**SMI solutions for Tsumagoi**  
Before being installed at the Tsumagoi plant, the **new EBS 3 K ERGON** stretch-blow moulder was presented to the Japanese "food & beverage" market during the important Drink Japan 2018 exhibition, held in Tokyo in June.

**Functions:** stretch-blow moulding of 0,32 L and 0,5 L bottles in PET with a square base and 0,41 L and 0,5 L cylindrical bottles with a production capacity of up to 6,000 bottles/hour.

**Main advantages:**

- high efficiency rotary stretch-blow moulder equipped with motorised stretch rods (usually used for high speed production), which presents outstanding advantages compared to linear blowers and guarantees the precise management of the stretch rod cycle and accurate control of their position, as well as having significant energy saving
- ultra-compact system: the preform heating section (oven) is integrated within the stretch-blow moulding section (carousel) in a single very compact module, which makes



this system suitable even for bottling lines with reduced space.

- reduced blower energy consumption, thanks to the preform heating module, equipped with high efficiency IR lamps and the stretch blow-moulding module equipped with air dual recovery system that allows the reduction of energy costs tied to the production of high pressure compressed air

- the structure, that surrounds the oven and the carousel is equipped with slightly rounded protection doors, which provide more space inside the machine so that cleaning and maintenance can be carried out easily and safely

- the stretch-blow moulding system uses high performance low deadvolume valves, that reduce pre-blowing and blowing times, therefore improving efficiency and the quality of the bottles produced

- the machinery is managed by the MotorNet System® for automation and control, which ensures constant maintenance of optimum processing parameters, throughout the entire production cycle and the direct modification of the machine settings, thereby simplifying format changeover operations.

**When the container becomes competition**

Over the last few years, the ruthless competition between companies in the mineral water sector has increasingly evolved around the price of the product, that needs to be low but high quality for consumers, therefore to be able to maintain or increase their share of the market, bottling companies need to develop innovative solutions that are able to reduce production, running and distribution costs. All this requires careful analysis of the characteristics and performance of the bottles in PET that are used,







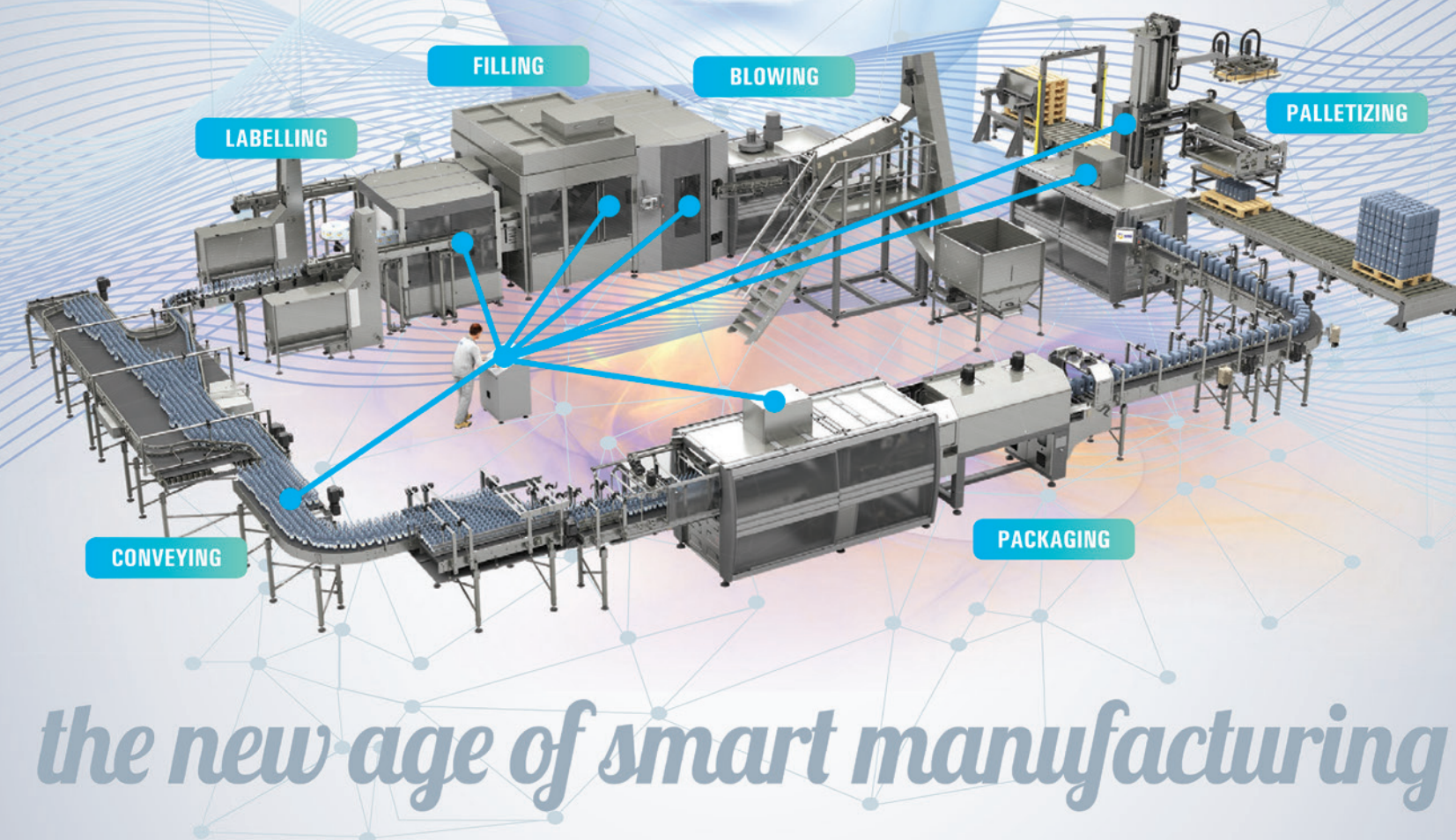
analysis that persuaded the Japanese company Tsumagoi Meisui to create new containers that optimise the combination between the volume of the bottle blown by the SMI rotary stretch-blow moulder EBS K ERGON and the number of bottles contained in the cardboard box. Among the best formats, to reduce storage and distribution costs, Tsumagoi Meisui chose 0.32 L and 0.5 L square based bottles in PET and 0.41 L and 0.5 L cylindrical bottles.

SMI designs and manufactures bottling plants and packaging machines with an innovative design, equipped with IoT technology, providing thousands of customers from more than 130 countries 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. The latest developments and the continuous investments in Research & Development have led to the production of even more compact, economic and eco-friendly machines, able to meet production requirements up to 36,800 bottles/hour.

## INTERCONNECTED INTELLIGENCE BETWEEN YOU AND YOUR FACTORY



SMI SMART LINES VIDEO  
...scan & discover it!



## the new age of smart manufacturing

SMI is specialized in designing, producing and installing complete lines for food & beverage bottling & packaging.

SMI turn-key systems feature Industry 4.0 and IoT technologies and an output rate up to 36,800 bottles/hour.

THE FACTORY OF THE FUTURE IS ALREADY A REALITY

