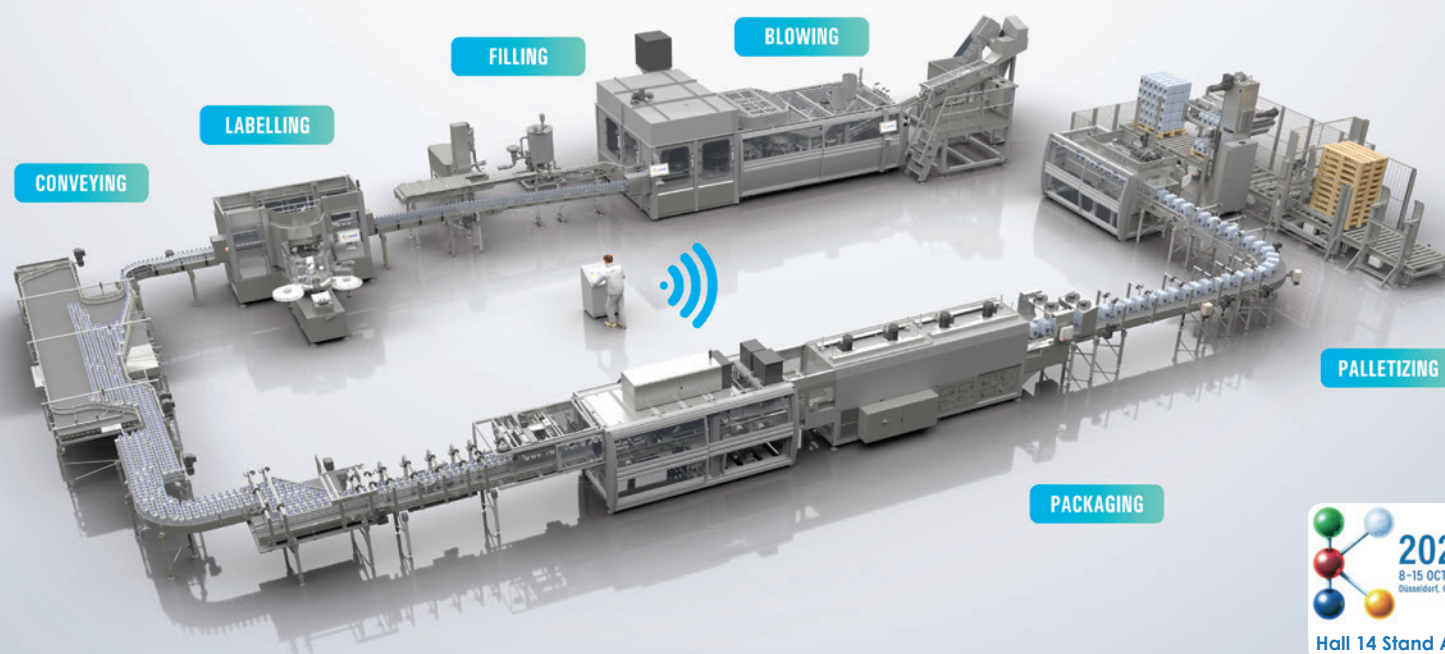


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WATER PACKAGING

IMPROVING YOUR PRODUCTION EFFICIENCY 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 55,000 BOTTLES/HOUR.




2025
8-15 OCTOBER
Düsseldorf, Germany
Hall 14 Stand A70

Truly *label-free* bottles

SMI solutions for Águas de Carvalhelhos for the production of new rPET containers without plastic labels



Carvalhelhos is a benchmark in the water sector in Portugal and one of the leaders in the export market.

The Boticas-based company focuses on the environmental sustainability of its production processes, which will be further improved thanks to the installation of a new **EBS 8 KL ERGON** stretch-blow moulder by SMI, for the production of new **rPET containers without plastic labels**. This eco-friendly solution eliminates the need for glue and additional paper or plastic materials, simplifying the recycling process and ensuring higher purity in recycled PET.

110 years of Carvalhelhos: A legacy of purity, a future of possibility

The origins of Águas de Carvalhelhos trace back to 1915, with the founding of Caldas Santas de Carvalhelhos. From the very beginning, this iconic Portuguese company has stood out for its unwavering commitment to quality and well-being, offering consumers the pure excellence of naturally bottled mineral water.

Anticipating shifts in consumer packaging trends, Águas de Carvalhelhos became one of the pioneers in Portugal to adopt PET plastic for food-grade containers. Recognizing its potential early on, the company invested heavily in technology to support large-scale PET production. Today, Águas de



Carvalhelhos continues to blend tradition with innovation. The latest example is its collaboration with SMI, reinforcing its leadership in sustainable packaging. The introduction of new PET bottles — available in 0.33L, 0.5L, and 1.5L formats — features a label-free design made possible by advanced moulds from SMIMEC, installed on the EBS 8 KL ERGON stretch-blow moulder.

This cutting-edge process customizes each bottle with an embossed Carvalhelhos logo and essential product information, including Braille, directly engraved onto the packaging — eliminating the need for paper labels and reaffirming the brand's role as a pioneer in environmentally conscious solutions.

SMI solutions for Águas de Carvalhelhos

The Portuguese company has involved SMI for the supply of a new rotary stretch-blow moulding system from the EBS 8 KL ERGON series and

for the study and development of new PET and rPET containers with and without plastic labels. It is a state-of-the-art, intelligent and interconnected system, equipped with the most modern automation and IoT technologies, with strong eco-compatibility characteristics and different benefits.

Benefits to safeguard the environment

Innovative solution that respects the environment, as it does not require the use of glue and paper or plastic labels, ensuring greater purity of the recycled PET material.

The area dedicated to the label has been removed, eliminating the ribs typically found in traditional bottles. Therefore, an innovative combination of embossed and debossed engravings on the bottle body provides additional space for the brand logo and essential product information, which would traditionally appear on a label. This approach also allows for the



inclusion of information in braille. Beyond its environmental benefits, this solution aligns with Carvalhelhos' aesthetic and branding needs, helping the new bottle stand out on store shelves and attract consumer attention.

Management and control benefits

The system supplied by SMI uses an advanced automation system called MotorNet System®, which ensures the constant maintenance of the optimal processing parameters during the entire production cycle, allows the direct modification of the machine settings from the operator panel, simplifies format change operations and offers the possibility of temporarily disabling one or more moulds if necessary. The Posyc® operator interface is simple and intuitive, ensuring quick parameter adjustment and facilitating routine and scheduled maintenance tasks. The EBS 8 KL ERGON stretch-blow

moulder is also equipped with the latest generation of instruments to detect, monitor and compare the system's energy consumption.

Energy-saving benefits

The stretch-blow moulder is equipped with a system of energy-efficient thermo-reflective panels in composite ceramic material, positioned both in front and behind the lamps, which allow uniform heat distribution. The stretch-blow moulding carousel is equipped with motorised stretch rods controlled by electronic drives, which guarantee precision in operations and energy savings (no compressed air is needed and the power consumption is lower than solutions with linear motors). The compact design of the machine ensures significant savings on transport cost.

Production efficiency benefits

The EBS 8 KL ERGON stretch-blow moulder is equipped with high-

performance valves and low dead volumes (-50%) which ensure reduced pre-blowing and blow moulding times and better quality of the bottles produced. The blow moulding machine also adopts a series of measures capable of reducing the level of wear of the components to the benefit of production efficiency, such as the gripper handling system based on springless preform grippers/bottles equipped with desmodromic cams and plastic bearings.

Benefits for operator flexibility

Thanks to the preform feeding system equipped with adjustments by means of numerical position counters, format changeover operations are simple and fast. Even the format change operations, to switch from the production of traditional bottles to bottles without a label, are extremely simple and fast as it is sufficient to replace the graft section in the mould.

Focus on Águas de Carvalhelhos. Quality water for over a century

The water of Carvalhelhos has long been celebrated for their therapeutic virtues. First discovered in 1915 by a shepherdess who found relief from her injuries by washing her feet in the spring, the miraculous nature of the water was quickly brought to national attention, thanks to a photographer from Porto who documented her recovery. What began as a quiet tale of healing soon became a national phenomenon. The shepherdess, a true Barrosã, remains a symbolic figure to this day. Her image continues to embody the soul of the brand and features prominently in the logo of Águas de Carvalhelhos, the company that has proudly bottled this natural treasure for over 110 years. From the beginning, Águas de Carvalhelhos has upheld a deep respect for the purity and origins of its mineral waters.

Bottled at the heart of a UNESCO-protected heritage region, the company applies stringent environmental criteria to preserve the nobility of its aquifers. This dedication ensures that the water retains the same remarkable properties that first captivated Portugal over a century ago.

In alignment with its mission to blend tradition with innovation, Águas de Carvalhelhos has partnered with SMI for the supply of a cutting-edge EBS 8 KL ERGON rotary stretch-blow moulder. This technology supports the production of PET bottles — with and without labels — enhancing efficiency while honouring the brand's sustainable values.

