

LABEL-FREE BOTTLES



SMI SOLUTION FOR APPEALING AND SUSTAINABLE CONTAINERS

Packaging is a strategic element for the commercial success of any product, as it can impact both profitability and corporate sustainability policies.

In primary packaging solutions, sustainability is expressed through creativity, with the design of visually appealing containers that capture consumers' attention, and through

functionality, with the development of lightweight, rPET, and label-free bottles.

In the PET and rPET beverage market, the trend toward label-free packaging is rapidly gaining momentum. More brands are choosing this approach not only to reduce their environmental footprint but also to simplify production and stand out on shelves. SMI supports companies by

offering expert guidance in designing and manufacturing Label-free containers.

A key innovation supporting this approach is the use of 2D codes, such as QR codes. These can be applied to caps, closures or capsules or laser-engraved directly onto the bottle surface. This compact solution allows companies to provide all necessary regulatory, product, and marketing information without a physical label.

Advantages for the Environment and the Consumer:

- eco-friendly solution, as the PET bottle is 100% recyclable
- better compliance with environmental regulations regarding recycling
- easier recycling process, since there is no label to remove. Even when made from recyclable materials, labels on traditional bottles must be separated from the container during recycling.
- no need for glue in label application.
- reduced packaging waste, resulting in less material to recycle.

Advantages for the Bottler:

- reduced costs for raw material purchases (labels and glue).
- lower storage costs for raw materials.
- simplified and optimised production process, as a labelling machine is no longer required.
- easier and more efficient PET recycling, since there is no need to separate the label from the container.

In Portugal, Carvalhelhos, a company that has always prioritised sustainability and environmental responsibility, produces new PET and rPET containers without plastic labels, thanks to the EBS 8 KL ERGON stretch-blow moulder by SMI.

Carvalhelhos blow moulder not only produces traditional PET and rPET bottles that require label application,

but it is also equipped with specialised moulds designed by SMIMEC for the stretch-blow moulding of 0.33 L, 0.5 L, and 1.5 L flat-bottom rPET bottles without paper or 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.

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.

Giving Shape to Ideas

The quality of the moulds installed on the rotary stretch-blow moulders, necessary for the production of the containers, and the efficiency in the stretch-blow moulding process are two fundamental elements to obtain quality bottles that attract the attention of consumers.

SMI, through its subsidiary SMIMEC, takes care of the entire production phase of the moulds installed on stretch-blow moulding machines. To meet the needs of customers who wish to produce both traditional

bottles intended for label application and bottles without labels, SMIMEC manufactures special couplings to be inserted in the moulds mounted on SMI stretch-blow moulders. Size changeover operations to switch from one type of bottle to another are extremely simple and fast as it is sufficient to replace the plug section in the mould.

Although the design change may seem simple, in reality such an operation represents a major change from a marketing point of view, as it promotes circular economy and helps to evolve the way brands communicate with their customers and differentiate themselves on shop shelves.

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