

Cam-free blow moulders mean optimal bottling efficiency

Food and beverage companies rely on efficient packaging technology to remain competitive. **SMI** explains how its new EBS ERGON series of fully electronic stretch-blow moulders shows off its passion for innovation.

Bottling and packaging technology is crucial to the success of food and beverage companies, and strives for an optimal combination of competitiveness, efficiency and environmental friendliness. SMI has been creating systems and machinery that deliver this optimal blend since 1987.

The Italian firm is a world-renowned provider of PET-bottling systems and packaging machines for the food and beverage, household cleaning, personal hygiene, chemical and pharmaceutical industries, and is committed to providing the most innovative and sustainable technology in single machines and complete lines.

Its latest electronic blowing system, EBS ERGON, represents a flexible approach to PET-bottle production, and is capable of up to 36,800bph, depending on features.

It is the result of a challenging, two-year research and development project that introduced new design and manufacturing concepts to enable a market-leading combination of low energy consumption, performance and quality/price ratio.

The new range of fully electronic blowers will soon be available for sale, and the first deliveries are to be made in the second half of 2017.

Top-notch reliability and efficiency

The EBS ERGON series of fully electronic stretch-blow moulders is equipped with motorised stretching rods controlled by electronic drives, with no need for mechanical cams.

This enables a precise descent and accurate positioning of the stretching rod, as well as remarkable energy savings. It also allows the stretch-blowing speed to be adjusted without manual intervention greatly reduces the vibration stress to which blow moulding carousels are traditionally subjected.

The EBS ERGON series also features a low dead-volume valve system that reduces pre-blowing and blowing times, maximising efficiency and bottle-manufacturing quality.

The blower is equipped with a mould-holder's opening/closing/locking system operated by a brushless motor, which avoids the inconveniences of cam-based systems, thereby improving reliability.

Another important innovation is the motorisation of the mould unit's mechanical movements, which make EBS ERGON a genuine cam-free system in terms of the way the electronic stretching rod is integrated. This means significantly greater kinematical accuracy, less maintenance intervention, fewer vibrations, quieter running and longer product life.

A single servomotor enables the new configuration to handle the up and down movements of the mould bottom, as well as the



The EBS Ergon series dispenses with cams to minimise energy consumption while maximising performance and ease of use.

opening and closing of the mould-holding unit, which greatly reduces mechanical stress and noise in comparison with conventional, cam-equipped set-ups.

The mould-holder's opening and closing movements have now been optimised according to the diameter of the bottles to be produced. This leads to a gradual reduction of the opening and closing stroke, with the stretch-blow moulding cycle decreasing in proportion to a container's size.

Easy and economical

The compact, ergonomic and operator-friendly frame of the new EBS ERGON series simplifies machine running, cleaning and maintenance operations, ensuring significant space savings within the bottling line. Ease of use is further refined by a MotorNet System automation and control platform, which ensures that working parameters remain optimal during the whole blowing cycle by automatically adjusting machine settings in the event of format changeovers.

The EBS ERGON stretch-blow moulders also feature a new preform-heating module that is characterised by compact sizes, horizontally deployed preform-holding mandrel chains and optimised ventilation systems. The new preform-heating oven is equipped with heat-reflecting, highly energy-efficient panels made of composite materials mounted on the front and to the rear of the IR ray lamps, guaranteeing higher and more uniform heat distribution on the surface of preforms. ■

Further information

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