Smarter stretch-blow moulding

SMI has introduced a stretch-blow moulding system that challenges traditional approaches. Its rotary blow moulding option, with two or three cavities, reaches speeds similar to linear machines while using less energy, enabling lighter bottles and faster changeovers. The machine's single-frame design combines oven and carousel on one base, saving space, reducing transport costs and simplifying installation.

A fully servo-motorised camless system controls stretching rods and mould operation, improving precision, reducing vibrations and lowering maintenance requirements. These features offer a glimpse of how stretch-blow moulding can become more efficient and compact without compromising performance.

SMI is leaning into digitalisation and sustainability, developing AI-driven IoT analytics for predictive maintenance and integrating in-mould labelling to eliminate separate labels. "By embossing key details directly onto bottles and adding scannable QR codes to caps, SMI's approach simplifies recycling, cuts raw material and storage costs, and removes the need for separate labelling equipment," noted Sisimbro.

Meeting rising production demands while improving sustainability is one of the biggest challenges for packaging manufacturers. However, the latest moulding technologies show that it is possible to combine efficiency, precision and energy savings. By adopting smarter, more flexible solutions, companies can reduce costs, speed up production and shrink their environmental footprint, all while maintaining the quality and appeal that consumers expect. ●