

Refresco Adopts Sidel's EvoBLOW Laser to Redefine PET Lightweighting

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In Bruchsal, Germany, Refresco has successfully implemented Sidel's EvoBLOW Laser technology, marking a significant advancement in PET bottle manufacturing efficiency and sustainability. Now in operation for over a year, the innovation is setting new benchmarks in bottle lightweighting while enhancing operational stability across high-volume production lines.

Refresco introduced the EvoBLOW Laser as part of its initiative to lighten its 1.5L PET bottles without compromising structural integrity or production consistency. Unlike conventional halogen-powered preform heating systems, the EvoBLOW Laser uses precision laser-based heating, offering full control with up to 36 heating lines along the preform. This targeted approach enables unprecedented accuracy in temperature management during the blowing process.

According to Gabriele Luna, Head of Indirect Procurement at Refresco, the technology has enabled the company to reduce material usage by up to 15 per cent while maintaining bottle strength and robustness. Beyond material savings, the solution delivers enhanced process stability and repeatability, key factors for large-scale beverage operations.

The EvoBLOW Laser also supports Refresco's broader sustainability agenda across its European footprint. By improving energy efficiency and enabling seamless processing of recycled PET (rPET), the system strengthens the company's efforts to reduce virgin plastic consumption and increase recycled content in its packaging portfolio.

The technology has been tested with up to 100 per cent rPET and is capable of producing bottles containing 50 per cent and 70 per cent rPET using the same blowing recipe. Eliminating warm-up and cool-down phases, the laser system ensures immediate operational readiness, reducing downtime and increasing productivity.

Daniel Debruijn, PET Expert at Refresco, highlighted the operational simplicity of the system, noting that recipe changes are faster and more stable compared to traditional halogen ovens. The improved ease of use reduces process adjustments and

minimises stress during unplanned stops, contributing to smoother day-to-day line management.

With industrial validation now established, the EvoBLOW Laser demonstrates how advanced heating precision can deliver measurable material savings, energy efficiency gains and enhanced scalability—reinforcing Refresco’s commitment to sustainable, high-performance beverage packaging solutions.