Solutions for sustainable manufacturing



Among the exhibits of SMI will be the compact EBS 4 K ERGON series of compact fully electronic stretch-blow moulders. Capable of satisfying production demands of up to



9,200 bph, the EBS K models are available in 2, 3 and 4-cavity versions, and offer all the advantages of rotary technology in a "speed" range traditionally controlled by linear stretch-blow moulders, states the company.

Among these advantages are a compact modular design; high technological content, inspired by Industry 4.0 and IoT concepts; easy management and control of the production cycle; an electronic machine with transmission systems employing brushless motors; low operating and maintenance costs as well as low energy consumption and eco-friendly processes. To achieve the latter, the stretch-blow moulding carousel is equipped with motorised stretch rods, controlled by electronic drives which do not require mechanical cams; this solution is claimed to ensure precise control of the path of the stretch rod, energy savings and reduced mechanical interventions.

The EBS 4 K Ergon stretch-blow moulder showcased at K is equipped with preferential heating, that is suited to the production of non-cylindrical containers for detergents, cleaners, cosmetics, pharmaceutical products, sauces, condiments and some alcoholic beverages, with the ratio of the long and short side exceeding 2. It uses a differentiated/dedicated temperature profile, ensuring a good material distribution and the elimination of zones with an excessive thickness. It also claims to facilitate labelling and to optimise the weight of a particularly complex container.

www.smigroup.it

Recycling technology: a new life for PET bottles



PET bottle flakes are a valuable secondary resource. At K show, Starlinger recycling technology will be presenting recycling solutions for three different applications: bottle-to-bottle, bottle-to-fibre, and bottle-to-bag.

Bottle-to-bottle: Starlinger has installed more than 55 PET bottle-to-bottle recycling lines worldwide with a total installed capacity of >550,000 metric tons/year. The lines are available for a throughput of 150 up to 3,600 kg/h. The cleaning efficiency of Starlinger's recoStar iV+ PET recycling lines meets the strict criteria of various national and international authorities (e.g. EFSA, FDA) with regard to food contact as well as the quality requirements of major brand owners.



Bottle-to-fibre: The biggest challenge nowadays lies in material quality. If bottle flakes are mixed with polyester fibres, the material may require high-end filtration and/or an increase in intrinsic viscosity (IV). Starlinger has the entire technology in-house: solid-state polycondensation plants for IV increase, and a continuous polymer filter, the Rapid Sleeve Changer, for finest filtration down to $15\,\mu m$.

Bottle-to-bag: Post-consumer bottle flakes are turned into polyester tape fabric for bags or big bags / FIBCs that are in turn recyclable. The production of packaging from waste (i.e. PET flakes) saves valuable resources and allows for a closed loop production. The first rPET FIBC projects have just been installed in Europe and Asia.

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