

“Smart” bottling lines to be more competitive

Italian company SMI S.p.A.'s latest range of bottling and packaging machines are equipped with Internet of Things (IoT) and Industry 4.0 (4IR) compliant technologies. The intention is to enable customers to install “smart” solutions that will help to improve production efficiency, operational flexibility, energy saving and ease of use and control. Its EBS K Ergon rotary stretch blow moulder and Ecobloc K Ergon integrated system feature a compact footprint, which bring advanced solutions within reach of smaller bottling plants. The EBS K project has won a number of awards for SMI from Italy and across Europe. An example from the range will be showcased at the Brau Beviiale exhibition, to be held in Nuremberg, November 13-15, 2018.



The new rotary blow moulder is available in 2, 3 and 4-cavity models and is suitable for manufacturing PET containers up to 3l with a capacity of 1,000-9,000 bph. SMI says that it combines the advantages of rotary technology with speeds usually associated with linear stretch blow moulders.

Compact and integrated

The letter 'K' in the EBS K Ergon range title comes from the German word “kompakt” and highlights the machine module's reduced dimensions. The preform heating tunnel is integrated with the stretch blow moulding blowing wheel in a single, very compact module, which can be installed in even the smallest bottling lines. The tunnel features a horizontal preform feeder chain and optimised ventilation and aeration system.

The infrared (IR) lamp heating units are equipped with thermo-reflective panels made of a highly energy-efficient composite material, mounted both in front and behind them. This solution ensures more effective reflection of the IR lamps' heat and, consequently, a more uniform distribution of heat over the entire surface of the preform. The inside of the tunnel is also equipped with an aluminium diffuser, to provide optimal temperature control and prevent overheating problems.

The machine frame containing the tunnel and the blowing wheel is equipped with safety doors that are slightly rounded, providing more space inside the machine to perform cleaning and maintenance tasks easily and safely.

Electronic power for precision

The stretch blowing wheel is equipped with motorised stretch rods, controlled by electronic drives. They do not require mechanical cams. SMI says that this solution ensures precise control of the stretch rod's path and position, as well as saving energy. This technology makes it possible to change the stretching speed without switching cams and greatly reduces vibration stress on the blowing wheel, compared to traditional solutions.

The Ergon range has a completely electronic production process and transmission system, using brushless motors equipped with integrated digital servo-drivers. This design is said to be offering customers low operating and maintenance costs, low energy consumption and eco-friendly processes.

The stretch blow moulding system uses high-performance, low-dead volume valves. This facilitates shorter preblowing and blowing times, boosting machine efficiency and bottle quality. The system's control and automation is by the established MotorNet System, which ensures the maintenance of processing parameters throughout the entire manufacturing cycle and enables the direct modification of machine settings, thus simplifying format changeovers. Blowing pressure is automatically regulated according to bottle format, completely eliminating manual adjustments. The new machine has a two-stage air recovery system as standard.

SMI says that the EBS K Ergon rotary stretch blow moulders can be installed and started up in a single day.

In addition to the features of the standard model, the Ecobloc K Ergon rotary "combi" machine includes advanced solutions based on IoT and 4IR parameters and is an ultra-compact system for high performance stretch blow moulding, filling and capping PET containers up to 3l, SMI says. The systems are suitable for bottling lines for milk and still water (EV models)



and edible oil (EM models), at rates of 1,000-9,000 bph.

The EBS K Ergon stretch-blow moulder was named one of 11 national winners from 189 businesses representing Italy for The European Business Awards, Europe's largest business competition. SMI was chosen by a panel of independent judges including senior business leaders, politicians and academics as the best in Italy in the category "Awards for Innovation", and represented Italy in this category in the final stage of the competition.

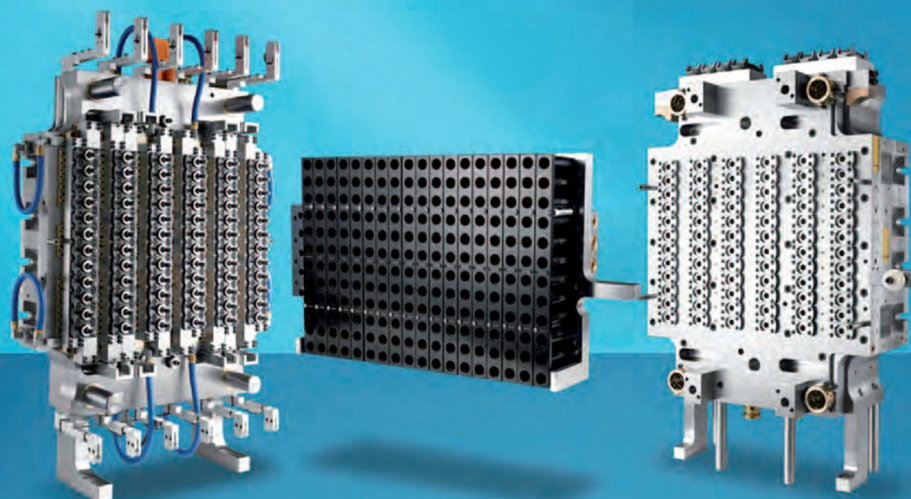
Easier cap positioning

SMI's new Easy-Cap gravitational cap grabber takes caps from the hopper, gives them the desired orientation and moves them into the bottling line. It features integrated motorised hopper for loose cap loading; elevated cap handling conveyor; and an outfeed cap discharger linked to the cap channel. It allows the passage only of correctly positioned caps; others are gravity-fed back to the hopper. The compact machine is made of AISI 304 steel and features a "user-friendly" operator interface, for ease and efficiency.

www.smigroup.it

Dedicated to the highest quality of preform molds for your factory

HUIYUAN
Your preform mold expert



T: 0086-576-89170999 / 89170995 / 15968687777
W: www.PET-mold.com E: sales@hymolds.cn
A: NO.20 JinChuan Road, North Industrial Zone, HuangYan, TaiZhou, ZheJiang

