



## HIGH FLEXIBILITY... LOW ENERGY CONSUMPTION

The all-new Ergon product range stands out for an innovative ergonomic design that further improves the economic efficiency, the operational flexibility and the environmental performance of SMI's packaging machines and that brings together the very latest in process automation, advanced technologies and energy saving. **ERGON packers are the ideal choice for the secondary packaging up to 450 packs/minute (in triple lane configuration).**



## The rise of 'smart' bottling and packaging plants

**SMI**'s 'smart' factories have been designed to meet the increasing demands of the industry by maximising efficiency in the packaging process.

In the era of industry 4.0 and IoT, the food and beverage industry demands bottling and packaging solutions that are more automated, versatile, interconnected and efficient, which can produce large batches in the most economical and eco-friendly way.

The bottling and packaging plants designed by SMI are typical of a 'smart factory', as every machine collaborates actively, exchanges information and collects data, aiming to produce more products at a faster rate.

The 'smart' factory was conceived by SMI and is characterised by the use of:

- the latest generation of production technology, including the ERGON range of automated packers, which ensure flexible, ergonomic and fully automated packaging processes, with close interaction between machines and operators
- a computerised integrated management control system that enables continual line supervision, data collection for a range of statistics on plant functioning and the ability to constantly monitor vital production parameters (even from a distance) – all of this helps with carrying out corrective actions, undertaking machine maintenance and improving the performance of the 'intelligent' factory
- production solutions that guarantee greater energy saving, efficiency and less resource waste.

### A bottling and packaging machine that is made for industry 4.0

With the launch of ERGON, SMI has shown that it has the capability to propose solutions that ensure more flexibility, efficiency and eco-compatibility, as well as better management and simpler monitoring methods for production lines.

For blowing and bottling processes, SMI provides the EBS (Electronic Blowing System) ERGON. This product introduces a variety of new concepts:

- The stretch blowing module of the EBS ERGON series is equipped with a motorised stretch rod, which has functions that are controlled by electronic drives. As it does not require mechanical cams, the system guarantees energy savings and the precise control of a stretch rod's path and position.
- EBS ERGON uses high-performing low dead volume valves to reduce pre-blowing and blowing times, which helps to improve the machine's efficiency and the quality of bottles it produces.

- Motorising the mould mechanical assembly process – and integrating this with the electronic stretch rod – turns the product's stretch blow module into a 'cam-free' system that has considerable advantages, including greater kinematic accuracy, increased system longevity, and less maintenance, vibration and noise.
- A newly designed preform-heating tunnel that features very compact dimensions, with a horizontal preform-holding mandrel chain, and optimised ventilation and aeration systems.
- The heating module is equipped with thermo-reflective panels that are made from an energy-efficient ceramic material. These are situated in front of and behind the infrared lamp units, which are responsible for evenly distributing heat across the entire surface of preforms.
- The machine also has a two-stage AirMaster that enables the system to recover and recycle a portion of the air from the high-pressure blowing circuit, to then be used in the pre-blowing, blowing and service air circuits. This system reduces compressed air consumption as well as energy costs.

### Grow productivity with supervision systems

SMI has developed SWM Supervisor, which is based on an open and flexible modular enterprise web portal that allows it to be used with any platform. The advanced system easily identifies the main causes of 'downtime' in the bottling/packaging product lines, and helps to achieve greater efficiency by reducing the time needed to carry out system maintenance and format changes.

SMI's product can remotely receive a list of orders, from which SWM extracts instructions that are added to the machine for production. Thanks to this supervision, it is now possible to know the chronology of directions that are added into the process. Companies, therefore, receive important information about the amount of compliant, manufactured or discarded products.

The distribution of information gathered by smart devices – that are connected to the network and located throughout the production line – are easily managed through the internet and corporate intranet, enabling the instant sharing of data with people, systems and IT applications. ■

### Further information

SMI  
[www.smigroup.it](http://www.smigroup.it)  
[info@smigroup.it](mailto:info@smigroup.it)

