

Pulmuone Waters adopts SMI's ERGON range to package PET water bottles more sustainably

From bottle to bundle

In the bottled water sector, the South Korean company Pulmuone promotes the perfect harmony between man and nature; to process the label-free "Oh My Green" bottles, the company recently invested in an SMI SK 500 F ERGON shrink wrapper, a DV 500 S ERGON divider and a PSHA 60 pre-shrink handle applicator.



Pulmuone Waters translates the company motto "Love for Others, Respect for Life" into the production of fresh, wholesome foods and the choice of eco-friendly packaging solutions, such as the film-only bundles used for PET bottles containing Oh My Green brand water.

The label-free Oh My Green bottles, packaged using an SK 500 F ERGON shrink wrapper supplied by SMI, are claimed to be an increasingly popular solution that simplifies production and reduces environmental impact. By eliminating labels, ink and adhesives, post-consumer packaging recycling becomes simpler and more efficient. The clean, minimalist design of the bottles is also intended to enhance the product inside and strengthen brand identity. From a production standpoint, removing the labeller, cutting equipment maintenance and reducing the use of packaging materials simplifies the bottling and packaging line.

Pulmuone Waters has further streamlined the process by installing a PSHA series pre-shrink handle applicator integrated into the shrink

wrapper – a compact, space-saving solution that eliminates the need for conveyor belts between the two machines.

Thanks to the advantages offered by digitalisation and automation, the SK 500 F ERGON is claimed to allow the company to address market changes efficiently and sustainably. Installed at the Miryang plant, it adopts cutting-edge hi-tech solutions to reduce production and management costs while ensuring high levels of plant flexibility and efficiency.

The shrink wrapper handles 0.3, 0.5 and 2L PET bottles, forming bundles in film-only packs in formats including 5x4 (0.3L and 0.5L), 6x5 (0.5L), 8x5 (0.5L) and 3x2 (2L).

Technical features designed for performance and ease of use

SK ERGON shrink wrappers are equipped with ICOS Smitec motors with integrated servo drives, designed to ensure high performance and energy savings. The servo drives exploit the energy generated by the motors during deceleration, sharing

it with other devices on the wrapping machine. They offer a space-saving solution that reduces the size of electrical panels and air conditioning systems.

Maintenance is also simplified: the SK ERGON shrink wrapper purchased by Pulmuone Waters is equipped with special self-lubricating chains, which eliminate the need for lubricants and remove the requirement for operator intervention between chain elements.

Format changes are similarly streamlined. The SK packaging machines feature side rails on the infeed conveyor, equipped with new rollers and profiles, which are claimed to simplify format changeovers and reduce the time needed to switch between pack configurations – an advantageous solution for companies packaging different containers in various formats.



PSHA handle applicator

The SK ERGON range of shrink wrappers is equipped with an energy meter with a digital LCD display, which, by monitoring energy consumption, is claimed to optimise the system's operational efficiency. The meter records and displays electricity consumption, voltage, current, and power over a given period. Thanks to these devices, SMI machines can benefit from the services offered by the SMYIOT platform, an interactive database that remotely collects, veri-

fies, processes, and evaluates all system operating parameters, both at the individual machine level and across the entire production line, in order to improve operational efficiency and energy performance, schedule maintenance, and reduce overall production costs.

Handle application on all the packs worked on the SK 500 F ERGON shrinkwrapper.



Applying a pre-shrink handle is a good solution when packs are made with thin film but a handle is still required; the system is also suitable for small bundles, as the pre-shrink application allows for a larger grip space.

The pre-shrink handle applicator is a particularly advantageous solution for those lacking sufficient space to install a stand-alone handle applicator downstream of the packaging machine and the associated conveyor belts that connect the two machines. The automatic PSHA (Pre-Shrinking Handle Applicator) handle applicator is installed on the outer edge of the SK 500 F ERGON shrink wrapper from Pulmuone Waters and applies a handle to a section of shrink film before the packs are formed and passed through the shrink wrapping tunnel. Depending on the machine configuration, the customer can decide whether to place this space-saving device on the operator side, on the opposite side, or on both sides for twin-lane.

The PSHA handle applicator is also synchronised with the packaging machine it is installed on, to the extent that the latter automatically switches to standby mode when the handle reel runs out. Two reels can be loaded, one running and one on standby; a sensor detects when the running reel nears its end and activates an automatic splicing device, which seals the tape from that reel to the standby reel, avoiding any interruption to the packaging process. Precise positioning of the adhesive handles on the shrink film ensures they are always correctly placed on the bundle as it leaves the tunnel.

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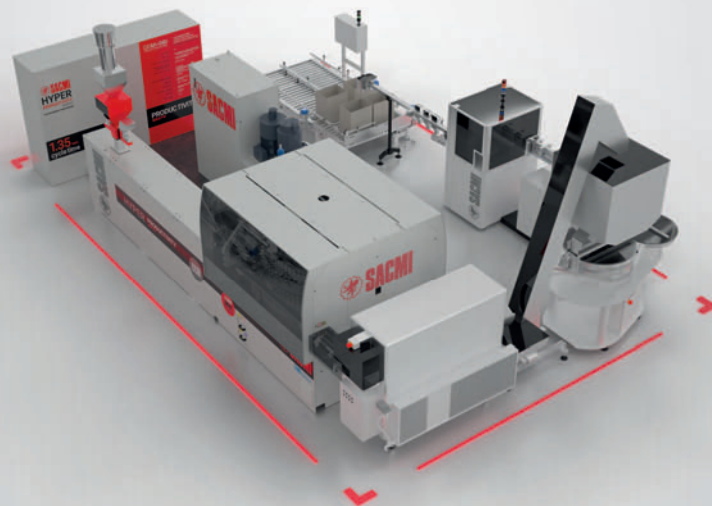
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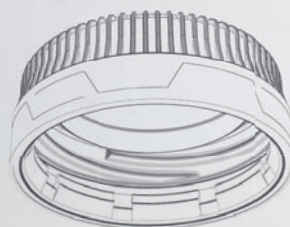
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