

Integrated packaging technologies improve efficiency while supporting label-free bottled water production and sustainable packaging initiatives.



SMI Supports Sustainable Water Packaging

Sustainability continues to influence investment decisions across the beverage industry as manufacturers seek packaging solutions that reduce environmental impact without compromising operational efficiency. In South Korea, Pulmuone Waters has strengthened its production capabilities by integrating SMI packaging technologies into its bottled water operations, supporting the company's commitment to environmentally responsible manufacturing and streamlined production.

The investment includes an SK 500 F ERGON shrink wrapper, a DV 500 S ERGON divider and a PSHA 60 pre-shrink handle applicator for processing label-free "Oh My Green" PET water bottles in 0.3 L, 0.5 L and 2 L formats. By eliminating labels, inks and adhesives, the packaging format simplifies post-consumer recycling while reducing packaging materials and supporting a cleaner bottle design. The integrated handle applicator, installed directly on the shrink wrapper, also minimizes equipment footprint by eliminating the need for separate downstream handling systems.

The packaging system incorporates digital servo-drive motors that recover energy generated during deceleration and redistribute it across the machine, helping reduce energy consumption while

minimizing electrical cabinet requirements. Self-lubricating chains eliminate the need for external lubricants, reducing maintenance while lowering the risk of contamination in food production environments. Simplified format changeovers further improve operational flexibility for multiple bottle sizes and bundle configurations.

SMI has also equipped the installation with digital energy monitoring that records electricity consumption, voltage, current and power usage while connecting to the SMYIOT platform for remote performance monitoring, predictive maintenance and production optimization. Automatic reel splicing within the PSHA 60 handle applicator allows continuous operation during handle reel replacement, minimizing production interruptions and improving overall packaging efficiency.

The investment reflects the growing role of integrated automation in supporting sustainable beverage packaging. By combining energy-efficient equipment, compact machine design and recyclable packaging formats, the installation demonstrates how manufacturers can improve operational performance while advancing environmental objectives throughout the production process.