

LOVE FOR OTHERS AND RESPECT FOR LIFE AND THE ENVIRONMENT: THIS SIMPLE MESSAGE EXPRESSES THE ENTIRE CORPORATE PHILOSOPHY OF PULMUONE CORPORATE, A LEADING SOUTH KOREAN COMPANY IN THE PRODUCTION OF HEALTHY FOODS AND WATER, WHICH, SINCE ITS FOUNDING, HAS PROMOTED THE PERFECT HARMONY BETWEEN HUMANITY AND NATURE. THIS HARMONY IS ALSO ACHIEVED THROUGH THE ADOPTION OF ENVIRONMENTALLY FRIENDLY PRODUCTION SYSTEMS, SUCH AS THOSE SUPPLIED BY SMI FOR THE PULMUONE WATERS DIVISION'S MIRYANG PLANT. A DV 500 S ERGON DIVIDER, AN SK 500 F ERGON SHRINK WRAPPER EQUIPPED WITH A PSHA 60 PRE-SHRINK HANDLE APPLICATOR, AND RELATED CONVEYOR BELTS FOR THE SECONDARY PACKAGING OF THE NEW "OH MY GREEN" BRANDED UNLABELED BOTTLES WERE RECENTLY INSTALLED THERE.

PULMUONE WATERS

→ **SECTOR: WATER**
 PULMUONE WATERS
 Miryang, South Gyeongnam, South Korea
www.pulmuonewater.com

→ Divider DV 500 S ERGON
 → Packer SK 500 F ERGON + handle applicator PSHA 60
 → Conveyors

VIDEO

GEO LOCATION



INVESTING FOR THE FUTURE OF PEOPLE AND THE PLANET

Based on the company motto "Love for Others, Respect for Life," in May 2022, Pulmuone Waters redefined its values, laying the foundation for its corporate mission: creating a healthier future for people and the planet.

This translates into the production of fresh, wholesome foods and the choice of eco-friendly packaging solutions, such as the bundles in film only for PET bottles containing Oh My Green brand water.

Packaged using an SK 500 F ERGON shrink wrapper supplied by SMI, the label-free Oh My Green bottles, are an increasingly popular innovative solution that reduces environmental impact, simplifies production, and respects the planet.

By eliminating labels, ink, and adhesives, post-consumer packaging recycling, becomes simpler and more efficient.

Furthermore, the clean, minimalist design of the bottles enhances the product inside, strengthens the brand identity, and creates a modern, elegant look that attracts the public's attention.

From a production point of view, eliminating the labeler, reducing equipment maintenance, and reducing the use of packaging materials allows for a simplified bottling and packaging line.

Pulmuone Waters has further streamlined the production process by installing a PSHA series pre-shrink handle applicator integrated into the SK 500 F ERGON shrink wrapper, a compact and space-saving solution that eliminates the need for conveyor belts between the two machines.



RESEARCH FOR INCREASINGLY SUSTAINABLE PACKAGING

The company's ongoing environmental efforts have led Pulmuone Waters to adopt solutions that, in addition to using label-free containers, emphasise lightweight packaging. To minimise plastic waste, in 2021 the company developed South Korea's first bio-PET salad container, certified by the Korea Environmental Industry & Technology Institute. It is also working to increase the use of single-material packaging and develop new recycling technologies. For example, in October 2024, the Miryang-based company introduced 100% recycled plastic containers for all its premium fresh juices under the "I'm Real" brand, a first in the beverage industry that will reduce plastic consumption by approximately 259 tons annually.





HOW DID THE PULMUONE COMPANY COME INTO BEING?

In 1955, Won Kyung-sun, a farmer from Bucheon, Gyeonggi Province, named his farm "Pulmuone" as a symbol of renewal, hoping it could breathe new life into the people, just as the "pulmu," the tool that blows air in a blacksmith's forge, allows scrap metal to be transformed into new tools. This is because, after the Korean War, Won Kyung-sun welcomed those who had lost their homes, offering them a place to rebuild and renew. The green curve of the company logo, with its slightly raised edges, symbolises the healthy smile of nature and people, as well as "a large bowl full of nature." Even the shape of the letters gives the feeling of friendly writing, expressing the company's desire to get closer to its customers and offer them, what they desire. At the age of 60, Won Kyung-sun moved his farm, Pulmuone, to Yangju, Gyeonggi-do, and, together with other farmers, founded Korea's first organisation of organic

farmers, aiming to protect nature and save the planet and its people. This vision became the foundation of Pulmuone's guiding principle: love for others, respect for life. In May 1981, the founder opened a small grocery store in the Gangnam area of Seoul, called "Pulmuone Organic Produce Farm Shop," selling organic produce from his farm and those from his associated farmers. The store's opening marked the birth of today's Pulmuone Corporate and laid the foundation for spreading the value of organic farming throughout the country. In a short time, the company became the local benchmark for LOHAS (*) companies, playing a key role in promoting the perfect harmony between humanity and nature. Today, through its various divisions, Pulmuone produces a wide variety of healthy products made with natural and organic ingredients, such as tofu, fresh noodles, ready meals, and other healthy foods. These products have also allowed it to expand into foreign markets, including the United States, China, Japan, and Vietnam.

The company further developed in 1986 with the founding of the Pulmuone Waters division. Throughout his nearly 100-year life, Won Kyung-sun has continued to challenge himself with the goal of finding new ways to create harmony between humans and nature.



"PULMUONE BEGAN AS A HUMBLE FARM AND HAS GROWN INTO A HOUSEHOLD NAME WITH A STRONG COMMITMENT TO PROTECTING THE PLANET. AS IT CONTINUES TO GROW, THE COMPANY'S PRODUCTS CONTINUE TO EMBODY THE SPIRIT OF LOVE FOR ONE ANOTHER AND RESPECT FOR LIFE"

WHAT DOES LOHAS MEAN?

The term LOHAS, an acronym for Lifestyle Of Health And Sustainability, is used to describe a healthy and sustainable lifestyle. The LOHAS consumer favours organic and eco-friendly products, embodies the desire for a greener world, and carefully considers what they buy because, in addition to ingredients, they also pay attention to ethical values. They buy from transparent, authentic, and genuine brands. They love locally sourced, local, or regional products and insist on knowing the origin. A company inspired by the LOHAS principles aims to achieve harmony between humanity and nature by adopting a series of strategies to ensure the well-being of future generations and protect the environment.

SMI SOLUTIONS FOR PULMUONE WATERS



Under the slogan "Oh My Green," the South Korean company has successfully diversified its business, including numerous products designed to protect the environment and promote eco-sustainable initiatives. Thanks to continuous innovation, Pulmuone adopts packaging solutions that significantly reduce the environmental impact of its industrial operations. Among the most recent solutions adopted in this regard, is the SK 500 F ERGON shrink wrapper supplied by SMI, thanks to the advantages offered by digitalisation and automation in production processes, allows the company to address market changes efficiently and sustainably. The SK shrink wrapper installed at the Miryang plant adopts cutting-edge hi-tech solutions to reduce production and management costs and ensure high levels of plant flexibility and efficiency.



➤ SK 500 F ERGON SHRINK FILM PACKAGING MACHINE

Product worked: 0.3 L / 0.5 L / 2L bottles in PET

Packs formed: bundles in film only in formats: 5x4 (0.3L and 0.5L), 6x5 and 8x5 (0.5L bottles) and 3x2 (2L bottles).

➤ MOTORS WITH INTEGRATED DIGITAL SERVO DRIVES

SK ERGON shrink wrappers are equipped with ICOS Smelec motors with integrated servo drives, designed to ensure high performance and significant energy savings. The servo drives exploit the energy generated by the motors during deceleration, sharing it with the other devices installed on the wrapping machine. They also offer a space-saving solution that reduces the size of electrical panels and air conditioning systems.



➤ REDUCED MAINTENANCE

The SK ERGON shrink wrapper purchased by Pulmuone Waters is equipped with special self-lubricating chains, which eliminate the use of lubricants (which could come into contact with the packaged food product) and simplify maintenance operations, as no operator intervention is required to add lubricant between the elements on the chain.



➤ **SIMPLIFIED FORMAT CHANGES**

The SK packaging machines manufactured by SMI feature side rails on the infeed conveyor, equipped with new rollers and profiles, which simplify format changeovers and reduce the time required to switch from one pack configuration to another.

This is an advantageous solution for companies that package different containers in various formats.



➤ **ENERGY EFFICIENCY AND COST REDUCTION**

The SK ERGON range of shrink wrappers is equipped with an energy meter with a digital LCD display, which, by monitoring energy consumption, optimises 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, verifies, 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.



➤ **PRE-SHRINKING HANDLE APPLICATOR PSHA 60**

Packs formed:
handle application on all the packs worked on the SK 500 F ERGON shrink wrapper.

➤ **REDUCTION OF PACKAGING MATERIAL USED**

Applying a pre-shrink handle is the ideal solution when packages are made with thin film but the handle is a must; this system is also suitable for small bundles, as the pre-shrink application allows for a larger grip space.



➤ **COMPACT AND SPACE-SAVING SOLUTION**

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.



➤ **PRODUCTION EFFICIENCY AT THE HIGHEST LEVELS**

The PSHA handle applicator is perfectly synchronised with the packaging machine it is installed on, so much so, that the latter automatically switches to standby mode when the handle reel runs out. It is possible to load two reels, one running and the other in stand-by; in this case, a sensor detects the end of the tape on the reel that is running out and activates the automatic splicing device, which seals the adhesive tape from that reel to the reel in stand-by, thus avoiding interrupting the packaging process.

The precise positioning of the adhesive handles on the shrink film ensures that, when leaving the tunnel, they are always in the correct position on the shrink-wrapped bundle.



THE HISTORY OF PULMUONE WATERS

Pulmuone entered the bottled water industry with the establishment of Pulmuone Spring Waters, which, since first introducing spring water to South Korea in 1986, has become a leader in the domestic market with the motto "Pure, Clean Water for Our Families."

The excellent quality and service offered by the Korean company, as well as the constant growth in sales and the undisputed success of the brand, have led to the creation of a joint venture with Nestlé Waters (Pulmuone Waters JV) for the marketing of Kirkland Drinking Spring Water products.

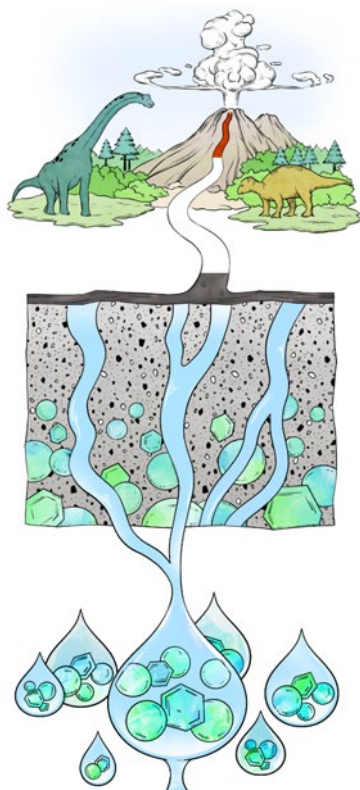
The growth of Pulmuone Waters is the result of strong innovation capabilities within its production departments, evidence of which is the diversification of its product line in 2022, with the introduction of carbonated soft drinks and eco-friendly products under the brand "Oh My Green".

The South Korean company's strong focus on environmental sustainability issues has been the basis for a series of initiatives to reduce the use of plastic, such as the use of increasingly

lighter bottles and the introduction of rPET bottles.

A further step forward was taken in 2024, when Pulmuone Waters acquired 100% of the shares of the Samsoseul company, a producer of bottled water under the "Ice Water" brand based in Miryang (South Gyeongnam), it is within these plants that the SMI SK 500 F shrink wrapper and the DV 500 S ERGON divider, discussed in this article, have been in operation since 2021.

The acquisition of Samsoseul has increased bottled water production capacity, reduced logistics costs, and improved product distribution throughout South Korea.



➤ THE BOTTLED WATER MARKET IN SOUTH KOREA

According to the research company Euromonitor, the bottled water market in South Korea grew by 15.6% in 2024 compared to the previous year, thanks to a growing interest in health that has led to a preference for spring water, over carbonated drinks.

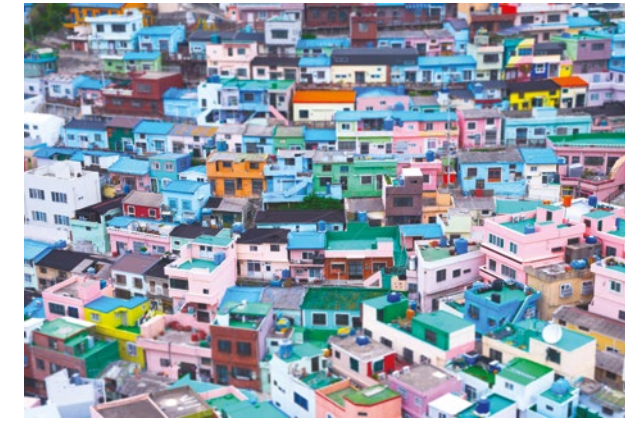
In particular, the recent trend towards consuming products packaged in unlabeled containers, which are easier to separate and dispose of for recycling, has accelerated the expansion of the bottled water market in the Asian country.

SOUTH KOREA BETWEEN MODERN AND TRADITION

South Korea is one of Asia's most fascinating and controversial countries, as well as one of the region's most advanced economies.

With a population of over 52 million, it is a place where modernity blends seamlessly with age-old tradition, offering a vast cultural heritage, extraordinary landscapes, and a delightful array of contrasts to visitors, that can be admired in every corner.

From ultra-modern Seoul, home to leading companies such as Samsung, Hyundai, and LG Electronics, to the UNESCO World Heritage sites of Bulguska and Gyeongju, the volcanic island of Jeju, and the beaches of Busan, the list of fascinating places is practically endless!



HOT SPRINGS AND NATURE RESERVES

On the south eastern coast of South Korea, South Gyeongsang Province boasts nature reserves, natural hot springs, easy mountain trails, and much more for outdoor enthusiasts. Some of the season's first cherry trees bloom in this area in spring, while in summer, countless tourists flock to dive in the coastal waters, and in autumn, the mountains welcome visitors for the foliage. Mount Jirisan, which literally means "exquisite wisdom," represents a vast natural, cultural, and spiritual heritage. Busan, the iconic city of Gyeongsang, with its 4 million inhabitants is South Korea's second-largest urban area after Seoul and a renowned tourist destination thanks to its stunning coastal scenery. Less than an hour from Busan lies Miryang, a charming town full of hidden gems, wonderful historic temples, traditional markets where you can sample local specialties, and pavilions offering magnificent panoramic views.



SAVOR KOREAN CUISINE

Among the experiences to be tried in South Korea there is undoubtedly the culinary one. Korean cuisine sinks its roots in the prehistoric peninsula, having evolved thanks to environmental, cultural, and historical influences. At its core is rice, often accompanied by meat, vegetables, and numerous side dishes called "banchan," always present alongside steamed rice.

The culinary philosophy is based on "obangsaek," the theory of five colours (white, black, blue, red, and yellow) linked to the five elements (wood, fire, earth, metal, and water) and traditional Eastern medicine, with the aim of nourishing body and spirit.

