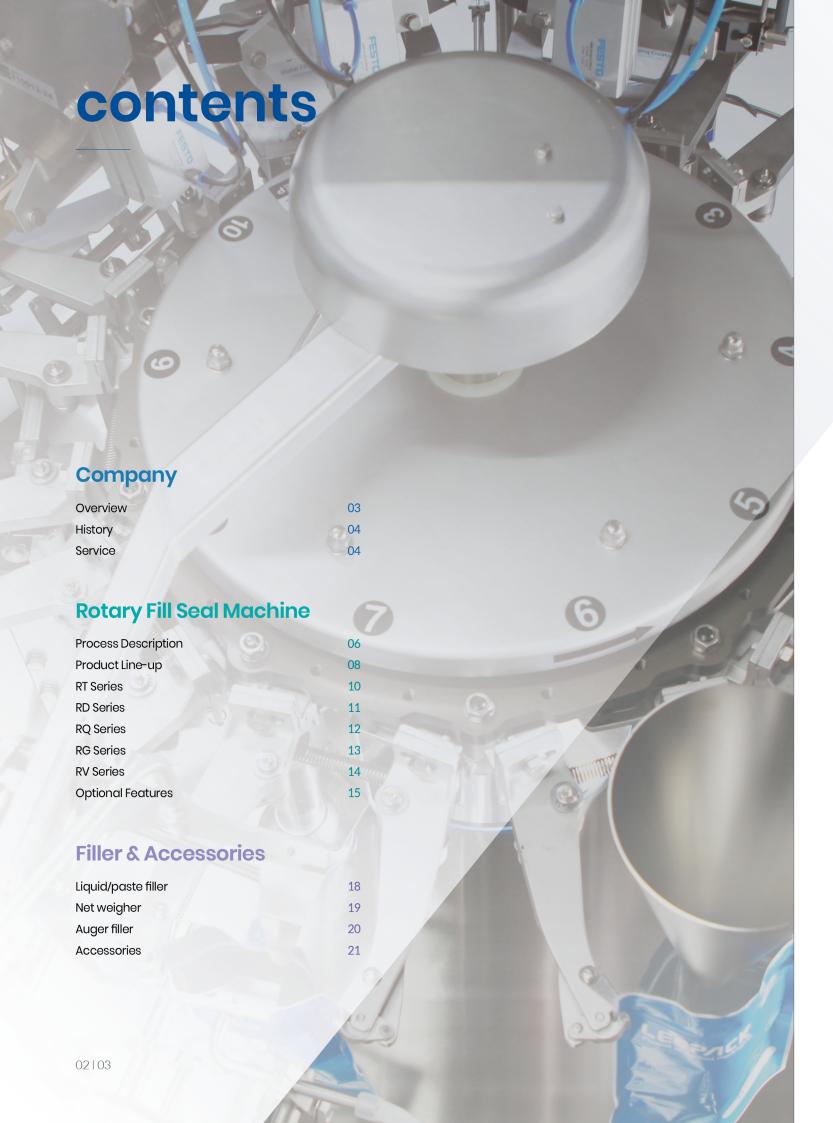


Pursuit of Perfect Packaging



Total solution for Flexible Pouch Packaging

Since its establishment as KOREA ELECTRONIC MFG., CORP. in 1967, LEEPACK Co., Ltd. has been presenting various packaging machines.

As results of efforts to develop the most advanced packaging solutions desired by customers, we have expanded into a leading Korean company in the field of packaging automation facilities and is growing into a global company. For the past half century, LEEPACK has made it our greatest value to grow with our customers. In the process, customer-oriented thinking and behavior through sincere communication has become our corporate culture.

The introduction of the 4th Industrial Revolution requires change and innovation in the packaging industry.

In the era of diversification, it is essential to have fast crisis response and flexible solutions. LEEPACK has its own development capabilities on the core technology of packaging facilities, enabling immediate response to customer needs.

We will support the transformation and innovation of customer production lines by providing more flexible and strong packaging solutions.





History

Pursuit of Perfect Packaging

Since 1967

1967~1984

Pioneering and Challenge

- 1967 Established KOREA ELECTRONIC MFG., CORP. (Mapo-gu, Seoul) Founded by Jong Gak Lee, the first chairman
- 1974 Developed band sealer
- Developed net weigher
- Developed vacuum packer
- Developed Vertical Form Fill Seal Machine



1985~1999

Expansion and Developing

- Factory moved to Nae-dong, Bucheon-si
- Developed Rotary Fill Seal Machine
- Developed Rotary Vacuum Fill Seal Machine
- Ilhae Lee inaugurated as CEO
- Established a domestic agency & overseas corporation 1995
- Established LEEGUN system, a subsidiary company



2000~Present **Innovation and Growth**

- 2002 Converted to LEEPACK Co., Ltd.
- Relocated factory and headquarters in Gajwa-dong, Incheon
- LEEPACK technical center built
 - Established a joint venture in India
- 2021 · Cumulative sales of Rotary Fill Seal Machines

2016 · 2nd factory built

Awarded the 20 Million Dollar



Service



Technical consultation

LEEPACK strives to provide optimal packaging equipment to meet the diverse needs of customers. For this, we provide fast and accurate consultation services by arranging professional technical consultants with extensive experience in packaging systems.



Installation services

LEEPACK's professional installation/commissioning engineers provide installation services optimized for customers' production lines. Services are available not only in Korea, but anywhere in the world without any inconvenience.



Maintenance services

The systematic and comprehensive maintenance services provided by LEEPACK enable customers to maintain their packaging equipment in optimal condition. LEEPACK is committed to customer satisfaction by establishing a system that responds quickly to customer service requests.



Parts supply

LEEPACK has established an information system for quick and accurate parts supply and operates a dedicated team with expertise. Quick and accurate parts supply is possible by thorough production history management, own production facilities, and proper inventory management.



Upgrades

LEEPACK provides an upgrade service that allows customers to renovate their aging packaging equipment and make it available to the latest specification. With LEEPACK's upgrade services.customers benefit from increased efficiency.



Education services

LEEPACK provides operator training services to help customers use equipment efficiently. Improving understanding of equipment through training services can be expected to extend the life of the equip-

ment.



Equipment Relocation

LEEPACK provides facility relocation (facility reinstallation) service to support the relocation and expansion of facilities for customers. When relocating equipment, it is more efficient to upgrade it at the same time.

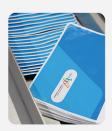
Process **Description**

Rotary Fill Seal Machine is an automatic packaging system that produces the finished pouch product by performing a series of packaging processes such as pouch supply, pouch opening, product filling, sealing, cooling, and discharge sequentially while the turntable is moving station to station.

With the flexibility of the pouch process configuration, it is possible to implement a pouch process optimized for customer products considering the type of pouch and the physical properties of the product.

Loading pouch (tube roll stock film)

The operator manually loads the pre-made pouch (or tube roll PE/EVA film)



Pouch supply

Process in which pouches are automatically fed to the gripper device



Optional device(s)

Available to install date coders and various error- proofing systems



Pouch opening

The process of opening the top and bottom of the pouch



Cooling and Discharge

The process of cooling the sealed pouch for a flat and strong sealed top. Process in which the finished pouch is discharged

through a conveyor belt.



(Preheating) Sealing

The process of sealing the open pouch



Product filling

The process of filling the product into the pouch



Optional device(s)

Available to install various optional devices such as dust removers and zipper closers



5~7

Rotary Fill Seal Machine

Product Line-up

Rotary Fill Seal Machines are fully automatic and produces finished pouch products from premade pouches and tube roll stock films for various industries.

LEEPACK is committed to meeting the diverse needs of its customers and provides versatile and reliable Rotary Fill Seal Pouch Machines.

RT Series

Simplex Rotary Fill Seal Machine



RD Series

Duplex Rotary Fill Seal Machine



RQ Series

Quadplex Rotary Fill Seal Machine

Quick and accurate after-sales service

Differentiated stability and convenience

Optimized packaging system

Excellent durability and stability

tors enables quick format change within 5 minutes.

of highly durable components.

and pharmaceutical industry.

Quick format change

Superb hygiene

Various error-proofing systems are available to enable continuous production and provide high user

The modular unit is easy to maintain and provides stable and predictable production due to the use

The automatic HMI adjustment function based on production information and using various indica-

The major devices are made from stainless steel and are manufactured with a hygienic design that considers antibacterial properties, ensuing a high level of hygiene standards required by the food

We provide fast and accurate after-sales service by using in-house development capabilities for key technologies such as mechanical design and control programs and established information system.

LEEPACK's packaging equipment has the flexibility to meet the special needs of customers,

convenience with intuitive touch screen and the wide range of automation.

so it is possible to build a packaging system optimized for customer products.



RG Series

Rotary Fill Seal Machine for Quad-seal side gusseted pouch



RV Series

Rotary Vacuum Fill Seal Machine



Filler & Accessories

Liquid / Paste filler



Filler & Accessories

Auger filler / Net weigher



Filler & Accessories

Feeder / Accessories















Simplex Rotary Fill Seal Machine



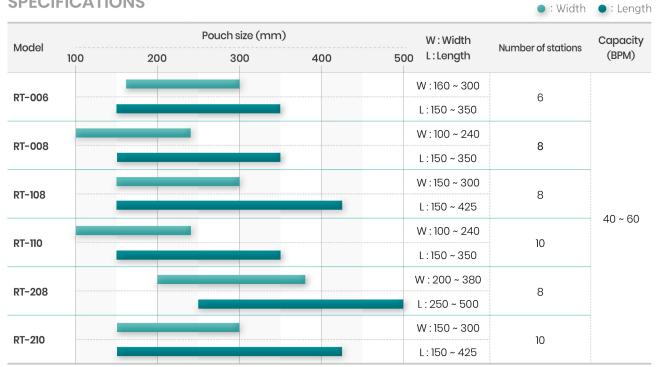
The RT series is a best-selling model from LEEPACK, a Simplex Rotary Fill Seal Machine that has been designed for various industries and has proven its performance.

RT series, which produces standard sized pouch products, has a wide lineup of 6/8/10 stations, and can be applied perfectly to any field without compromising productivity and accuracy.



Liquid or Paste with Solid Powder Granule Lump

SPECIFICATIONS



^{*} Production speed may vary depending on the characteristics of the packaged object or pouch, operator's skill level, or other production conditions.





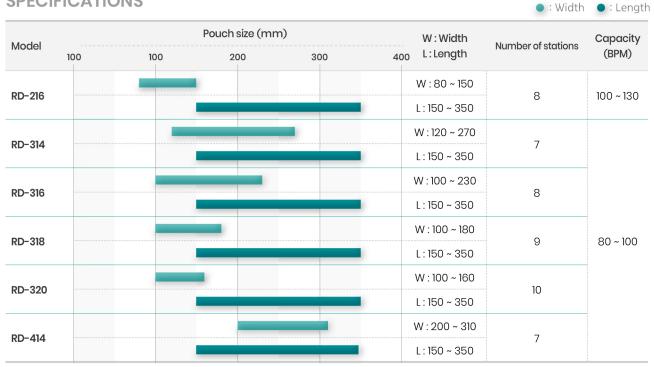
RD series is a Duplex Rotary Fill Seal Machine with a dual gripper system optimized for high production speed of small and medium sized pouch packaging.

All types of fillers and weighers can be applied, and a lineup of 7/8/9/10 stations enables the implementation of a packaging system optimized for customer products.

Duplex Rotary Fill Seal Machine



SPECIFICATIONS



 $[\]star \ Production \ speed \ may \ vary \ depending \ on \ the \ characteristics \ of \ the \ packaged \ object \ or \ pouch, \ operator's \ skill \ level, \ or \ other \ production \ scales \ or \ other \ productions.$





Quadplex Rotary Fill Seal Machine



The RQ series is a Quadplex Rotary Fill Seal Machine with a quadruple gripper system that can handle four pouches at a time.

For small volume liquid products, a maximum capacity upto 160 BPM can be achieved, and it is an automatic model that with frequent production changeover without break down.

SPECIFICATIONS



^{*} Production speed may vary depending on the characteristics of the packaged object or pouch, operator's skill level, or other production conditions.











Rotary Fill Seal Machine for Quad-seal side gusseted pouch



The RG series is a Simplex Rotary Fill Seal Machine optimized for quad-seal side gusseted pouches.

As a model with a gripper system dedicated to gusseted pouches, the core devices for producing gusseted pouch products are compactly designed in 8 stations, minimizing space for equipment installation.



SPECIFICATIONS



* Production speed may vary depending on the characteristics of the packaged object or pouch, operator's skill level, or other production conditions.















Rotary Vacuum Fill Seal Machine

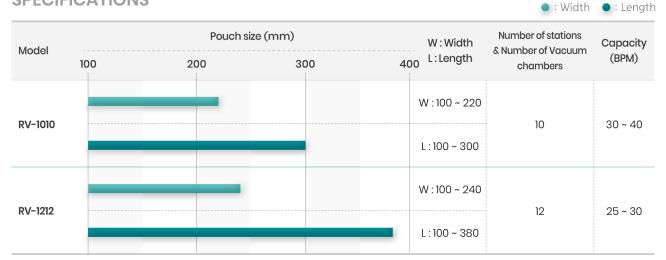




The RV series is a Rotary Vacuum Fill Seal Machine consisting of a Simplex Rotary Fill Seal Machine with vacuum chambers.

For customers looking for a high level of vacuum packaging, LEEPACK's RV series with high productivity and proven performance is the best solution.

SPECIFICATIONS



* Production speed may vary depending on the characteristics of the packaged object or pouch, operator's skill level, or other production conditions.

Optional Features 1

Applicable optional devices

Date coder 2022.01.29 까지 2022.06.143% Applicable to date coders such as inkjet printers, laser printers, thermal transfer printers, ribbon printers, and embossing coders Application Model RT / RD / RQ / RV / RG 2022.09.29 까지 2022.09.197KI

Print inspection system

• Equipped with a vision camera to check the printed information, and can choose between optical character recognition (OCR) and stamp recognition

Application Model RT / RD / RQ / RV / RG

Error-proofing system

- It is a device that verifies the status of the pouch gripped in the gripper, and makes system not perform product filling and sealing if the pouch
- Height detector: Detects pouch height and tilt
- Two-sheet detector: Detects if two or more pouches are supplied

Application Model RT / RD / RQ / RV

Zipper opener

- LEEPACK's unique zipper opener (Patented)
- Possible to select whether the device operates according to the type of pouch

Application Model RT / RD

Bottom opener

- Device for unfolding the bottom gusset of the stand-up pouch
- Possible to select whether the device operates according to the type of pouch

Application Model RT / RD / RQ / RV / RG

• Various types of funnel can be applied according to the size and physical properties of the product to be filled

Application Model RT / RD / RQ / RV / RG





Swivel filling system

- LEEPACK's unique liquid filling system (Patented)
- Production speed can be increased by securing additional filling time for products that generate a large amount of foam during filling

Application Model RT / RD

Diving nozzle system

• Minimizes foam generating and contamination of the sealing surface by keeping the gap between the packaged object and the nozzle at a minimum when filling the product









Optional Features 2

Applicable optional devices

Settler

- Enables stable sealing by securing a space on the upper part of the pouch through settling of the filled product
- Selectable between tapping and vibrating type

Application Model RT / RD / RQ / RV / RG



Dust remover

- Minimizes sealing defects by removing foreign substances from the sealing surface after filling the product (powder, solids)
- Selectable between air blowing and mechanical removing type

Application Model RT / RD / RV / RG



Gas/Steam flushing system

- Gas filler: Extends the shelf life of packaged products and prevents product damage during distribution by filling the pouch with a gas such as nitrogen
- Steam filler: High-temperature steam is sprayed into the pouch to obtain the vacuum packaging effect of the finished product





Nozzle-type degasifier

• Extends the shelf life of finished products and enables efficient encasing by minimizing the amount of air remaining inside the pouch





Zipper closer

• Closes the zipper to prevent contamination of the zipper after product filling





Ultrasonic sealer

- Pouch sealing device using ultrasonic vibration energy
- Specialized for liquid products that are concerned about leaks during sealing and distribution

Application Model RT / RD / RQ / RG



One lane merging discharge conveyor

• The rear end line can be more easily configured by sequentially discharging the finished product in the production of products using a duplex or quadplex model





Safety guard door

- Open-close type transparent door to ensure the safety of operators when operating the machine
- Proven interlocking system that meet international standards



Application Model RT / RD / RQ / RV / RG



Optional Features 3

Applicable optional devices

Feedback system

- . Checks the weight of the first filled product and then feeds back the data and reflects it in the second filling
- Reduces cost by precise filling when packaging expensive products

Application Model RT / RD / RV



Pouch return function

- Increases production efficiency by re-supplying the pouch without discharging the product if it is not filled
- Application Model RT / RD / RG



Neutral gripper system

• A system for use as a duplex model by inserting a intermediate gripper between the gripper pair of a simplex model

Application Model RT



Spout pouch magazine

- Dedicated pouch magazine for minimizing the supply failure of corner spout pouches
- Standard pouches and corner spout pouches available

Application Model RT / RD



Pouch magazine for tube roll stock PE / EVA film

- A device for forming and supplying pouches using tube roll stock PE/EVA film
- Enables to build an economical packaging system that reduces the cost of production by lowering the unit price of the pouch

Application Model RT





Remote electrical enclosure

- Installation location is flexibly selectable as the control box is separate from the automatic packaging machine
- Prevents the ingress of control boxes such as water and cleaning agents when washing by water

Application Model RT / RD / RQ / RV / RG



Mobile touch screen

• The touch screen is separated from the automatic packaging machine for convenient operation

Application Model RT / RD / RQ / RV / RG





PLC & HMI

• Applicable to various PLC and touch screens such as Allen Bradley, Siemens, Mitsubishi, LS







MITSUBISHI ELECTRIC

Remote control system

• LEEPACK's engineers can remotely inspect and maintain the packaging system installed at the customer site via network connection

Application Model RT / RD / RQ / RV / RG



Liquid/Paste filler

Filler / Weigher

There are many types of liquid/paste products and the physical properties and production requirements of each product are different. This is why a lot of experience and know-how are essential to provide a filling system optimized for customer products. LEEPACK has a wide range of technologies through its long experience, and thus provides the optimal liquid/paste filler for various customer products.











Health-functional drinks, juices, soy milk, cooking oil, oil, wine, whiskey, meat broth, red ginseng, ice pack, shampoo, conditioner, hand soap, body wash, dishwashing detergent, hair dye

Paste Spaghetti sauce, mayonnaise, ketchup, dressing, curry, soup, condensed milk, gochujang, wasabi, sweet potato mousse, red bean soup, vegetable porridge, chocolate paste, etc.

LINE-UP

Valve & Piston type	Flowmeter type	Positive displacement type
FSP / Servo Driven Valve and Piston Filler	FFM / Flowmeter	FSR / Servo Driven Rotary Lobe Pump
A piston-type filler driven by a servo motor and has the best specification. Enables easy adjustment of filling volume and speed, so it can be used in various ways such as a feedback filling system.	A liquid filling system in which flow- meter checks the amount of product supplied from a pressure tank where the internal pressure is precisely controlled. It has the advantage of no limit on filling amount and fast and complete CIP.	Composed of a servo motor and a rotary lobe pump, which has strengths in large-capacity filling of high-viscosity paste products, and can also be applied to products containing solids.
FCP / Crank Driven Piston Filler		FCF / Centrifugal pump
A proven crank-driven piston type filler with high specification and durability. It provides high user convenience due to low maintenance items and easy operation.		The simple configuration of the centrifugal pump and nozzle allows for low maintenance items and enables to build a cost-effective system. This model is specialized for low-viscosity liquid products such as ice pack pouches.
FPN / Pneumatic Valve and Piston Filler		FTP / Peristaltic Tubing Pump
For low-viscosity and small-volume filling, FPN driven by pneumatic is the best solution for building a filling system at an economical cost.		FTP is specialized for filling very smal amounts of low-viscosity liquid prod- ucts with a speed-adjustable tube-per- istaltic metering pump configuration.

Net weigher

Filler / Weigher

Since its development in 1975, the SY series is a proven net weigher that has been applied to various products. Not only has a high degree of structural stability through a lot of experience, but it is also equipped with a dedicated controller that has been optimally developed to enable fast and accurate weighing. The major parts, including the main frame, are made of stainless steel to ensure

the highest level of hygiene.











Seasoning, sugar, salt, grains (rice, miscellaneous grains, beans, sesame, etc.), bread crumbs, whole bean coffee, nuts (walnuts, pine nuts, etc.), cereals, tablets/capsules, veterinary drugs, industrial components, etc.

LINE-UP

GV series **G** series **P** series A series GV series provides fast With a simple configura-The weighing speed is Consists of a trough tion of a gate and bucket weighing speed and fast due to the large and equipped with a vibrator high weighing accuracy controlled by a servo and a damper device small discharge trough through a two-stage conmotor, the system size is that controls the supply configuration, and a sepfiguration of large/small small and the weighing arate vibrator is installed amount step by step, discharge. speed is very fast. for each trough for high making it easy to con-Available in conjunction Due to the trough-free weighing accuracy. figure a small-capacity with Rotary Fill Seal Maconfiguration, the in-It can be applied in exfilling system for granular chines and Vertical Form fluence of flowability panded forms such as products. Fill Seal Machines, it is is small, maintenance 2P, 3P, and 4P to cope It can be installed on easy to scale in the form items and noise are minwith the high production automatic packaging of 2GV, 4GV, 6GV, allowing imized speed of automatic packmachines in expanded for a perfect response to aging machines, and is forms such as 4A, 6A, Provides user convenithe fast production speed ence and high weighing widely used as a standand 8A, and is also apof automatic packaging accuracy differentiated plied to the construction alone semi-automatic machines. by the G series' dedicatweigher. of stand-alone semi-aued controller. tomatic weighing machines and bottle filling lines.

OPTIONAL FEATURES

- Minimizes installation space with integrated automatic packaging machine
- Minimizes disturbance of operator movement (bottom of deck)
- Enough working space (top of deck)
- Reduces management items by fixing the weigher position
- Height adjustable

Auger filler

Filler / Weigher

Most of the components of LEEPACK's auger filler are made of stainless steel to ensure high level of hygiene. The hopper and auger can be disassembled/ assembled without the use of tools, enabling quick format change and easy cleaning and maintenance. In addition to a wide range of auger sizes, various optional devices such as Shutter, Knock, Dust Collector, provide a complete solution for customer products.











Flour, pancake powder, frying powder, seasoning powder, premix powder, oatmeal, grain powder, red pepper powder, powderd animal medicine (nutritional supplement), pesticides, hydrating agents, highly absorbent resins, cement powder, etc.

LINE-UP

Automatic packaging system

AW-590

With a wide filling range (20 g to 5 kg), it is LEEPACK's best-selling model that has been applied to various industries. It is a universal model that can be integrated with Rotary Fill Seal Machine or build a stand-alone semi-automatic packaging system.

AW-30KDA

This is a stand-alone semi-automatic model optimized for large-capacity sack packaging of up to 30 kg. In addition to precise control of the auger through a servo motor, a load cell is installed to enable precise filling. The up-and-down configuration of the sack minimizes dust generation during filling and reduces the volume of sealed products.

Semi-automatic packaging system

AW-650 series

This model is easy to maintain with fewer management items through a simplified configuration that omits the agitator.

AW-50N

This model is specialized for small-volume precision filling, which is only available in conjunction with a Rotary Fill Seal Machine. It is applied to the filling of small amounts (1g to 10 g) of powder in fields such as pharmaceuticals and cosmetics.

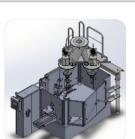
AW-590 DW / DTW

This is a stand-alone semi-automatic model that enables accurate weight checking by mounting a load cell on the AW-590 as default.

DW: A model equipped with a load cell at the bottom of the discharge section.

It is suitable for packaging of about 1 kg to 5 kg.

DTW: A model equipped with a pouch gripping device and a load cell, suitable for packaging of 100 q to 3 kg or less.



OPTIONAL FEATURES

Decl

- Minimizes installation space with integrated automatic packaging machine
- Minimize disturbance of operator movement
- Reducing of management items by fixing the position of the auger filler
- Height adjustable

Accessories

Feeder / Accessories

Product feeding devices

These are packaging solutions for packaging automation of products that are difficult to measure automatically or various types of products.







Bowl Conveyor / BC series

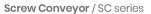
Bowl Feeder / BF series

Volumetric Filler / FVT series

Product supplying devices

These are packaging solutions that supply products to net weigher, auger filler and etc. for seamless continuous production.







Hygienic Inclined Conveyor / HIC series



Universal Pivot Conveyor / UP series



Bucket Lifter / BL-25

Rear-end line components

These are packaging solutions for ease of line configuration and post-processing after automatic packaging machine.



Extended conveyor / Belt, Table top



Turn table



1

Accumulator

Pouch Flattener



Global Presence



EUROPE

BELGIUM / NETHERLANDS / LUXEMBURG
/ GERMANY / SWITZERLAND / AUSTRIA
/ ESTONIA / LATVIA / GREECE / SPAIN /
BULGARIA / UKRAINE / LITHUANIA / TURKEY
/ UNITED KINGDOM / DENMARK / POLAND
/ FRANCE / ITALY / CZECH / RUSSIA /
IRELAND / SWEDEN

AFRICA

NIGERIA / SOUTH AFRICA

MIDDLE EAST

ISRAEL / SAUDI ARABIA / JORDAN / IRAN

ASIA

JAPAN / CHINA / TAIWAN / THAILAND / INDIA / MALAYSIA / INDONESIA / PHILIPPINES / VIETNAM / SINGAPORE / PAKISTAN

OCEANIA

AUSTRALIA / NEW ZEALAND / FIJI

NORTH AMERICA

USA / CANADA

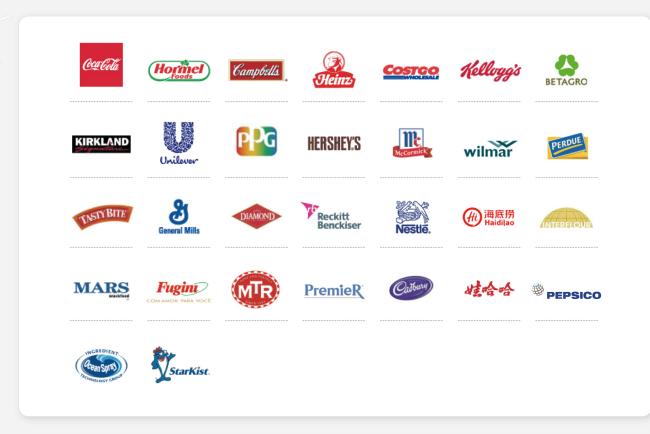
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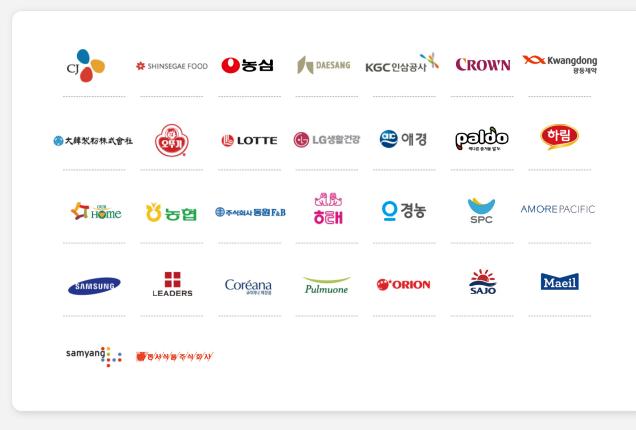
BRAZIL / CHILE / PERU / COLOMBIA / EL SALVADOR / MEXICO



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