

Automatic packaging machine for liquid and paste

User's needs are satisfied with a variety of series of models.

The operability has been improved by its touch panel control, and the productivity has been increased by its high-speed operation.

INDEX

FR SERIES ③
FR1-S/FR1-M/FR1-L

Multi-line SERIES ④
FR1-[]L/MR6-[]L

MR SERIES ⑤
MR7/MR6

MR300 SERIES ⑥
MR300/MR300-ss

T1 SERIES ⑦
MR6-T1/MR300-T1

High Grade Model
FR SERIES



High Grade Model
Multi-line SERIES





Innovational functions ⑧ Examples of packaging lines ⑨ Peripheral Equipment ⑩

High Performance, Low Price Model
MR SERIES



Fixed Pitch High-speed Model
MR-300 SERIES



High Grade Model
T1 SERIES



ZERO - 1S



- Removable cutter box for easy adjustments.
- Indicator for film volume. (used/unused)
- Strips of packages possible with perforation cut in between.
- cutting off strips by straight cutter or zigzag cutter.
- Thin film usable.
- Designed for quiet operation by minimizing vibration.

ZERO - 1S	
Standard functions	* Operation panel (touch panel – colored) * Photocell registration mark control * Film joint detector * Film end detector * Heaters for 2 nd horizontal sealer * Brake unit for film * I-notcher * Cutter * Adjusting device for film position * Safety devices (interlocked) * Slide for packages made * Adjustable film forming guide * Film feeding device with non-slip roller * Clearance adjusting device for 1 st horizontal sealer * Bag top forming device with motor-driven roller * Indicator for film volume (used/unused)
Storable data	1.Package length 2. Packaging speed 3. Sealing temperature. 4. Sealing pressures 5. Volume to be filled (No. of rotation – Patent No. 2133529) 6. Registration mark position 7. On/Off of mark control. 8. Cutting position 9. Position of perforation cut 10. Position of I-notch 11. No. of perforation cut packages for one strip 12. Printing position 13. Various timings and many others. Storable up to 30 items.
Option	* Perforation cutter * Divider of packages by preset number * Film cover * 4-side sealed packages * Pre-heater * Printer * Shutter to accumulate packages by preset number * Changeable seal bars * Intricate bag top seal patterns * Tandem packages * Clearance adjusting knobs for vertical and 2 nd horizontal sealers * Various pumps for product filling
Features	▶Arbitrary setting of clearance between seal rollers. ▶Stable sealing of intricate bag top seal patterns. (Patent applied) ▶No fluctuation of sealing temperature by means of changeable seal rollers developed by Sanko. (Patent applied) ▶Stable sealing even at high speed operations through the use of non-backlash gears ▶Removable cutter box enables easy adjustments and change over work. ▶The customer friendly, space saving model ▶Less waste of packaging material by means of dedicated software developed by Sanko.

Specification

Model	ZERO - 1S
Bag length	45 to105mm、 50 to 145mm、 60 to 200mm
Film width	60~ 260mm
Packaging speed	MAX 500bags/min *
Packaging volume	1~200cc **
Diameter of packaging film	MAX : 450
Dimensions	1,500wide × 880deep × 2370high(mm)
Weight	1200Kg
Power supply	3-phase,200VAC 50Hz/60Hz (6.5 K W at peak / 3.0KW on the average)
Air consumption	0.5 Mpa 150NL/min

* : Actual packaging speed will vary depending on filling volume and physical properties of the film and product to be packaged

** : Range of filling volume will vary depending on the volume of product discharged from the pump.

ZERO - 1 SERIES

ZERO - 1V



- High Performance & economical model
- Further upgraded features of ZERO-1

ZERO - 1V	
Standard functions	* Photocell registration mark control * Film joint detector * Film end detector * Heaters for 2 nd horizontal sealer * Brake unit for film * I-notcher * Cutter (frame removable by one touch) * Safety devices. (Interlocked) * Adjusting device for film position. * Slide for packages made * Adjustable film forming guide * Film feeding device with non-slip roller * Clearance adjusting device for 1 st horizontal sealer * Bag top forming device with motor-driven roller * Indicator for film volume (used/unused) * Operation panel for storing and setting various data and timings
Storable data	1. Packaging speed 2. Sealing temperature 3. Volume to be filled 4. Package length 5. Position of I-notch 6. Cutting position 7. Registration mark position 8. Printing position 9. Sealing pressures 10. Various timings and many others. Storable up to 30 items.
Option	* Perforation cutter * Divider of packages by preset number * Shutter to accumulate packages by preset number * Date printers (hot printer, thermal printer, ink jet) * Various pumps for product filling * Changeable seal bars * UV sterilizer for film * Clean booth for product filling process * Product sterilizer by heating * Cooling device * Zigzag cutter * Cartoning device.
Features	◆ Package length from 30mm up to 300mm. (Patent applied) Package length can be changed simply by changing seal bars, without changing seal rollers themselves. ◆ Shape and width of the horizontal seal, including intricate seal patterns, can be changed simply by changing horizontal seal rollers without removing bearings at both ends. (Option) ◆ Packaging speed: 30 ~ 600 packages per minute ◆ Features of ZERO-1 were developed further in this model. (Contact Sales Department for detail.)

Specification

Model	ZERO - 1V
Bag length	90 to 300mm, 50 to 145mm, 30 to 60mm
Film width	60~300mm (300mm at 4-side)
Packaging speed	30 ~ 600bags/min MAX 35m/min *
Packaging volume	1~200cc **
Diameter of packaging film	MAX : 450
Dimensions	1,355wide × 950deep × 2140high(mm)
Weight	950Kg
Power supply	3-phase, 200VAC 50Hz/60Hz (7.5 KW at peak / 4.0KW on the average)
Air consumption	0.5 Mpa 150NL/min

* : Actual packaging speed will vary depending on filling volume and physical properties of the film and product to be packaged.

** : Range of filling volume will vary depending on the volume of product discharged from the pump.

Automatic liquid and paste packaging machine

High Grade Model

FRSERIES

The wide variation of this series from high-speed type of 500 bags per minute to large-bag type of 400 cc will satisfy the use's needs.

FR1-S:High speed type

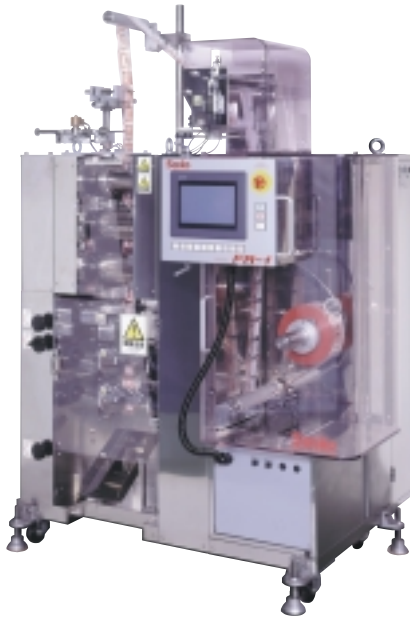
Used for packaging

Horseradish, mustard, sause for "natto", "miso", Chinese noodle soup, etc.

FR1-M:Standard

Used for packaging

Chinese noodle soup, "miso" for cooking, basting sause for broiled eel, pepper, etc.



FR1-L:Big bags

Used for packaging

Soup for noodle, straight soup, etc. up to 400 cc

FR-1	
Standard configuration	<ul style="list-style-type: none"> •Operation panel: touch panel type (colored) •Photocell type pattern matching device •Film joint detector •Film end stop device •Heater for second horizontal sealing roll •Packaging film braking unit •I-notching device •Cutter device •Packaging film shaft forward-backward moving device (operated by operation panel) •Air expelling roll •Safety devices (Interlocks for safety) •Product carry-out guide •Packaging film pull-out roll (non-slip type) •Universal bag guide
Items whose data are stored in the memory	1.Bag length 2.Packaging speed 3.Sealing temperature 4.Sealing pressure 5.Volume to be sealed in (Number of revolutions) Patent No. 62134 6.Marking position 7.Marking ON/OFF 8.Cutting position 9.Position of perforation 10.Position of I notch 11.Number of run of products in one cut 12.Position of printing 13.Timing of various operations, and other 30 items in total.
Options	<ul style="list-style-type: none"> •Perforation device •Packaging material shortage warning device •Packaging material section cover •Automatic removal device (At the starting time) •Preset number divider •Preset number shutter •Vertical sealing pre-heater •Vertical 4-side sealing •Vertical paired sealing •Replaceable horizontal sealing bar type •Bottle shape sealing device •Stamping device •Both sides notching device •Remaining packaging material indicator •Leakage detector •Jammed horizontal seal detector •Nozzle cooling device •Rotary disk device for powder (for pair packaging) •Vertical slitter •Vertical perforation device •Calendar timer •Hot printer •Thermal printer •Ink jet printer •Hot roll printer •Mono-pump •Rotary pump •Cascade pump •Hyper pump •High-speed intermittent pump (servo-type) •Agitator •Packaging material UV sterilizing device (Effective up to 10 m/min) •Clean booth •Packaging film wobble corrector •Warning light •Mine frame •Cooling blower •Air compressor •Air dryer •Cnetralized monitoring system
Features	<ul style="list-style-type: none"> ◆ All packaging data of each type of products can be stored in memory, and so repeated production can be carried out under the same conditions. ◆ Any adjustment can be carried out without using a tool, and so the operation and maintenance are easy (excepting the cutter section). ◆ Packaging film is pulled out using non-slip roll, and so mismatch of marking is very little. (Only ±1mm according to actual measurement by this company.) ◆ A heater is built in the second horizontal sealing roll, therefore material that is prone to generate bubbles such as oil and vinegar can be sealed in steadily. ◆ In compliance with HACCP, data control by your personal computer is possible by use of the centralized monitoring system (Option).

Specifications

Model	FR1-S	FR1-M	FR1-L
Bag length	40 to 80 mm	40 to 105 mm, 50 to 145 mm, 60 to 200mm	50 to 230 mm
Film width	60 to 260 mm (260 mm is a 4-side sealing type)	60 to 260 mm (260 mm is a 4-side sealing type)	60 to 300 mm
Packaging speed	30 to 500 bags/min.	30 to 400 bags/min.	30 to 400 bags/min.
Packing volume	1 to 30 cc	1 to 200 cc	1 to 500 cc
Diameter of packaging film	φ 450 mm	φ 450 mm	φ 450 mm
Dimensions	1,480 wide × 1,330 deep × 2,385 high (mm)	1,480 wide × 1,330 deep × 2,385 high (mm)	1,530 wide × 1,330 deep × 2,750 high (mm)
Weight	1,000 kg	1,000 kg	1,200 kg
Power supply	3-phase, 200 VAC, 50/60 Hz (7.5 kW at peak, 4.0 kW on the average)	3-phase, 200 VAC, 50/60 Hz (7.5 kW at peak, 4.0 kW on the average)	3-phase, 200 VAC, 50/60 Hz (7.5 kW at peak, 4.0 kW on the average)
Air consumption	0.5 MPa, 150 NL/min.	0.5 MPa, 150 NL/min.	0.5 MPa, 150 NL/min.

*Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *The range of quantity of material to be sealed in varies depending on delivery of the pump.

Automatic liquid and paste packaging machine

High Grade Model

Multi-line SERIES

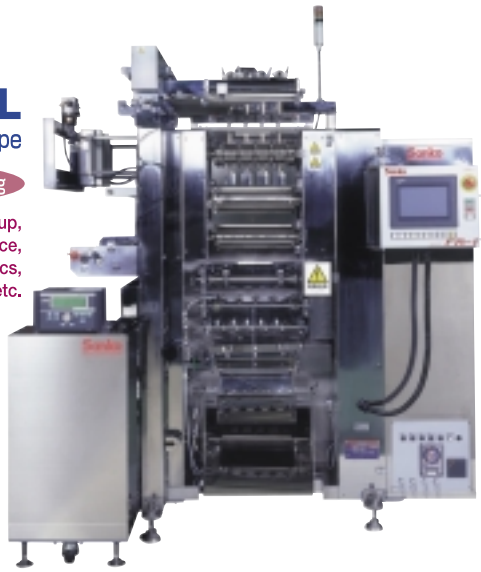
The packaging film is cut at the center, the back is placed against the back, and sealed together

FR1-[]L

:Multi-line type

Used for packaging

Mayonnaise, ketchup, soy sauce, sauce, cosmetics, shampoo, rinse, etc.



MR6-[]L

:Multi-line type

Used for packaging

Mayonnaise, ketchup, soy sauce, sauce, cosmetics, shampoo, rinse, etc.



	FR1-[]L	MR6-[]L
Standard configuration	<ul style="list-style-type: none"> • Operation panel, touch panel type • Photocell type pattern matching device • Film joint detector • Film end stop device • Heater for second horizontal sealing roll • Packaging film braking unit • I-notching device • Cutter device • Packaging film shaft forward-backward moving device (operated by operation panel) • Air expelling roll • Safety devices (Interlocks for safety) • Product carry-out guide • Packaging film pull-out roll (non-slip type) • Vertical slitter • Packaging film wobble corrector 	<ul style="list-style-type: none"> • Photocell type pattern matching device • Film joint detector • Film end stop device • Heater for second horizontal sealing roll • Packaging film braking unit • I-notching device • Cutter device • Packaging film shaft forward-backward moving device (operated manually) • Air expelling roll • Safety devices (Interlocks for safety) • Product carry-out guide • Packaging film pull-out roll (non-slip type) • Vertical slitter • Packaging film wobble corrector
Items whose data are stored in the memory	1. Bag length 2. Packaging speed 3. Sealing temperature 4. Sealing pressure 5. Volume to be sealed in (Number of revolutions) Patent No. 62134 6. Marking position 7. Marking ON/OFF 8. Cutting position 9. Position of perforation 10. Position of I-notch 11. Number of run of products in one cut 12. Position of printing 13. Timing of various operations, and other 30 items in total.	1. Bag length 2. Packaging speed 3. Volume to be sealed in (Number of revolutions) Patent No. 62134 4. Marking ON/OFF 5. Cutting position 6. Position of perforation 7. Position of I-notch 8. Number of run of products in one cut 9. Timing of various operations, and other 30 items in total.
Options	<ul style="list-style-type: none"> • Perforation device • Packaging film shortage warning device • Packaging film section cover • Automatic removal device (At the starting time) • Preset number divider • Preset number shutter • Bottle shape sealing device • Stamping device • Remaining packaging film indicator • Leakage detector • Jammed horizontal seal detector • Nozzle cooling device • Thermal printer • Ink jet printer • Hot roll printer • Mono-pump • Rotary pump • Cascade pump • Hyper pump • High-speed intermittent pump (servo-type) • Agitator • Packaging film UV sterilizing device (Effective up to 10 m/min) • Clean booth • Warning light • Main frame • Cooling blower • Air compressor • Air dryer 	<ul style="list-style-type: none"> • Perforation device • Packaging film shortage warning device • Packaging film section cover • Automatic removal device (At the starting time) • Preset number divider • Preset number shutter • Bottle shape sealing device • Stamping device • Remaining packaging film indicator • Leakage detector • Jammed horizontal seal detector • Nozzle cooling device • Thermal printer • Ink jet printer • Hot roll printer • Mono-pump • Rotary pump • Cascade pump • Hyper pump • High-speed intermittent pump (servo-type) • Agitator • Packaging film UV sterilizing device (Effective up to 10 m/min) • Clean booth • Warning light • Main frame • Cooling blower • Air compressor • Air dryer
Features	<ul style="list-style-type: none"> ◆ This machine is used only for 4-side sealing of mayonnaise, shampoo, etc. ◆ Maintaining the operability of the FR-1, packaging capacity of 1000 bags per minute max. has been achieved by the multiple row packaging. ◆ Packaging film is pulled out using non-slip roll, and so mismatch of marking is very little. (Only ±1 mm according to actual measurement by this company.) ◆ A heater is built in the second horizontal sealing roll, therefore material that is prone to generate bubbles such as oil and vinegar can be sealed in steadily. 	<ul style="list-style-type: none"> ◆ This machine is suitable for packaging shampoo, cosmetics, etc. ◆ Packaging film is pulled out using non-slip roll, and so mismatch of marking is very little. (Only ±1 mm according to actual measurement by this company.) ◆ A heater is built in the second horizontal sealing roll, therefore material that is prone to generate bubbles such as oil and vinegar can be sealed in steadily.

Specifications

Model	FR1-[]L * [] denotes number of rows. Four-side sealing only.	MR6-[]L * [] denotes number of rows. Four-side sealing only.
Bag length	45 to 105 mm, 50 to 145 mm, 60 to 200 mm	45 to 120 mm, 50 to 180 mm
Film width	640 mm max.	640 mm max.
Packaging speed	30 to 400 bags/min. per line × Number of line	30 to 120 bags/min. per line × Number of line
Packing volume	Varies depending on the number of line	Varies depending on the number of line
Diameter of packaging film	φ 450 mm	φ 350 mm
Dimensions	1,905 wide × 1,145 deep × 2,044 high (mm) (Varies depending on the specifications)	1,700 wide × 1,250 deep × 1,830 high (mm) (Varies depending on the specifications)
Weight	1,500 kg	1,200 kg
Power supply	3-phase, 200 VAC, 50/60 Hz (10 kW at peak, 5 kW on the average)	3-phase, 200 VAC, 50/60 Hz (4.8 kW at peak, 4 kW on the average)
Air consumption	0.5 MPa, 150 NL/min.	—

*Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *The range of quantity of material to be sealed in varies depending on delivery of the pump.

Automatic liquid and paste packaging machine

High Performance, Low Price Model

MR SERIES

Standard machines most suitable for diversified small-lot production.

MR7

Used for packaging

Chinese noodle soup, "miso" for cooking, various liquid and paste, etc.



MR6

Used for packaging

Chinese noodle soup, "miso" for cooking, various liquid and paste, etc.



	MR7	MR6
Standard configuration	<ul style="list-style-type: none"> • Photocell type pattern matching device • Film joint detector • Film end stop device • Heater for second horizontal sealing roll • Packaging film braking unit • I-notching device • Cutter device • Packaging film shaft forward-backward moving device (operated by operation panel) • Air expelling roll • Safety devices (Interlocks for safety) • Product carry-out guide • Packaging film pull-out roll (non-slip type) • Universal bag guide 	<ul style="list-style-type: none"> • Photocell type pattern matching device • Film joint detector • Film end stop device • Heater for second horizontal sealing roll • Packaging film braking unit • I-notching device • Cutter device • Packaging film shaft forward-backward moving device (operated manually) • Air expelling roll • Safety devices (Interlocks for safety) • Product carry-out guide • Packaging film pull-out roll (non-slip type) • Universal bag guide
Items whose data are stored in the memory	1. Bag length 2. Packaging speed 3. Sealing temperature 5. Volume to be sealed in (Number of revolutions) Patent No. 62134 6. Marking position 7. Marking ON/OFF 8. Cutting position 9. Position of perforation 10. Position of I-notch 11. Number of run of products in one cut 12. Position of printing 13. Timing of various operations, and other 30 items in total.	1. Bag length 2. Packaging speed 3. Volume to be sealed in (Number of revolutions) Patent No. 62134 4. Marking ON/OFF 5. Cutting position 6. Position of perforation 7. Position of I-notch 8. Number of run of products in one cut 9. Position of printing 10. Timing of various operations, and other 30 items in total.
Options	<ul style="list-style-type: none"> • Perforation device • Packaging film shortage warning device • Packaging film section cover • Automatic removal device (At the starting time) • Preset number divider • Preset number shutter • Vertical sealing pre-heater • Vertical 4-side sealing • Vertical paired sealing • Replaceable horizontal seal bar type • Bottle shape sealing device • Stamping device • Both sides I-notching device • Remaining packaging film indicator • Leakage detector • Jammed horizontal seal detector • Nozzle cooling device • Vertical slit • Vertical perforation device • Calendar timer • Hot printer • Thermal printer • Ink jet printer • Hot roll printer • Mono-pump • Rotary pump • Cascade pump • Hyper pump • High-speed intermittent pump (servo-type) • Agitator • Packaging film UV sterilizing device (Effective up to 10 m/min) • Clean booth • Packaging film wobble corrector • Warning light • Main frame • Cooling blower • Air compressor • Air dryer • Centralized monitoring system 	<ul style="list-style-type: none"> • Perforation device • Packaging film shortage warning device • Packaging film section cover • Automatic removal device (At the starting time) • Preset number divider • Preset number shutter • Vertical sealing pre-heater • Vertical 4-side sealing • Vertical paired sealing • Replaceable horizontal seal bar type • Bottle shape sealing device • Stamping device • Both sides notching device • Remaining packaging film indicator • Leakage detector • Jammed horizontal seal detector • Nozzle cooling device • Vertical slit • Vertical perforation device • Calendar timer • Hot printer • Thermal printer • Ink jet printer • Hot roll printer • Mono-pump • Rotary pump • Cascade pump • Hyper pump • High-speed intermittent pump (servo-type) • Agitator • Packaging film UV sterilizing device (Effective up to 10 m/min) • Clean booth • Packaging film wobble corrector • Warning light • Main frame • Cooling blower • Air compressor • Air dryer
Features	<ul style="list-style-type: none"> ◆ The operability has been improved by use of a 9.5-inch monochromatic display. ◆ Packaging film is pulled out using non-slip roll, and so mismatch of marking is very little. (Only ±1 mm according to actual measurement by this company.) ◆ A heater is built in the second horizontal sealing roll, therefore material that is prone to generate bubbles such as oil and vinegar can be sealed in steadily. ◆ In compliance with HACCP, data control by your personal computer is possible by use of the centralized monitoring system (Option). 	<ul style="list-style-type: none"> ◆ This machine is suitable for diversified small-lot production, because it is a representative machine among our variable pitch general-purpose machines. ◆ Packaging film is pulled out using non-slip roll, and so mismatch of marking is very little. (Only ±1 mm according to actual measurement by this company.) ◆ A heater is built in the second horizontal sealing roll, therefore material that is prone to generate bubbles such as oil and vinegar can be sealed in steadily.

Specifications

Model	MR7	MR6
Bag length	45 to 105 mm, 55 to 160 mm, 70 to 210 mm	45 to 120mm, 50 to 180 mm
Film width	60 to 260 mm (260 mm is a 4-side sealing type)	60 to 200 mm (200 mm is a 4-side sealing type)
Packaging speed	30 to 150 bags/min.	30 to 120 bags/min.
Packing volume	1 to 200 cc	1 to 150 cc
Diameter of packaging film	φ 450 mm	φ 350 mm
Dimensions	1,285 wide × 1,270 deep × 2,360 high (mm)	1,200 wide × 750 deep × 2,100 high (mm)
Weight	900 kg	800 kg
Power supply	3-phase, 200 VAC, 50/60 Hz (4 kW at peak, 2 kW on the average)	3-phase, 200 VAC, 50/60 Hz (4 kW at peak, 2 kW on the average)
Air consumption	—	—

*Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *The range of quantity of material to be sealed in varies depending on delivery of the pump.

Automatic liquid and paste
Packaging machine
High Performance, economy Model

MR SERIES

MR8

Twine type



- Space saving model.
- MAX. 350 packages/min.
- Product data can be registered under actual product names.

MR8	
Standard functions	* Photocell registration mark control * Film joint detector * Film end detector * Heaters for 2 nd horizontal sealer * Brake unit for film * I-notcher * Cutter * Adjusting device for film position (manual) * Bag top forming rollers * Safety devices (interlocked) * Slide for packages made * Film feeding device with non-slip roller * Adjustable film forming guide.
Storable data	1. Package length 2. Packaging speed 3. Sealing temperature 4. Volume to be filled (No. of rotation – Patent No. 2133529) 5. Registration mark position 6. On/Off of mark control 7. Cutting position 8. Position of perforation cut 9. Position of I-notch 10. No. of perforation cut packages for one strip 11. Printing position 12. Various timings 13. Product names and many others. Storable up to 30 items.
Option	* Perforation cutter * Warning device for film getting scarce * Cover for film station * Automatic discharging device * Divider of packages by preset number * Shutter to accumulate packages by preset number * Preheater for vertical sealer * 4-side sealed package * Tandem package * Intricate bag top seal patterns * Emboss coder * I-notching on both sides * Indicator for film volume * Leakage detector * Detector for product caught between horizontal seal rollers * Nozzle cooling device * Film slitter * Perforation cut on vertical seal * Various date printers * Various pumps * Agitator * UV sterilizer for film * Clean booth * Device to prevent film from meandering * Warning light * Cooling blower * Air compressor * Air drier
Features	<ul style="list-style-type: none"> ◆ Increased operability by adopting a 9.5" single color display. ◆ Little or no gap in registration mark control by having non-slip rollers feed the packaging material. (Result measured by Sanko ± 1mm) ◆ Reliable seals even for packaging oil, vinegar and other foamy products by embedding heaters in the secondary horizontal seal rollers. ◆ Possible to register products by names of products.

Specification

Model	MR8
Ranges of bag length	40~75mm (with 5-up sealing head) / 45~105mm (with 4-up head) 55~160mm (with 3-up head) / 70~210mm (with 2-up head)
Film width	60~ 260mm
Packaging speed	MAX 350bags/min *
Packaging volume	1~150cc **
Diameter of packaging film	MAX : 450
Dimensions	1,230wide × 705deep × 2360high(mm)
Weight	800Kg
Power supply	3-phase,200VAC 50Hz/60Hz (4KW at peak / 2KW on the average)
Air consumption	-

* :Actual packaging speed will vary depending on specifications of the machine, filling volume, physical properties of the film and product to be packaged.

** :Range of filling volume will vary depending on the volume of product discharged from the pump

Automatic liquid and paste packaging machine

Fixed Pitch High-speed Model

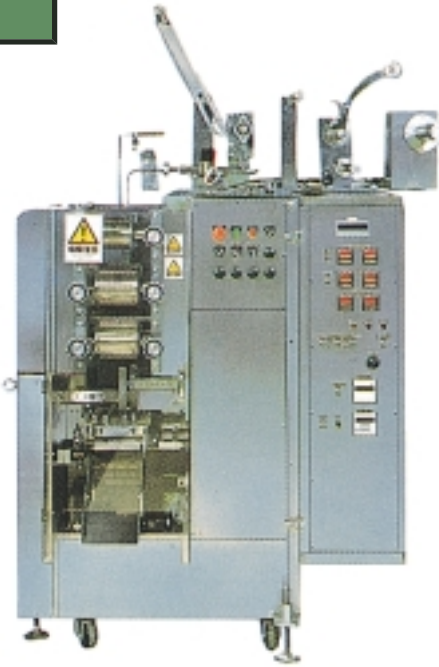
MR300 SERIES

High-speed type, low price model. Most suitable for production of fixed pitch products.

MR300

Used for packaging

"Natto" sauce, pepper, horseradish, "miso" for cooking, various liquid and paste, etc.



MR300-SS

Used for packaging

"Natto" sauce, pepper, horseradish, "miso" for cooking, various liquid and paste, etc.

	MR300	MR300-SS
Standard configuration	<ul style="list-style-type: none"> Film end stop device Heater for second horizontal sealing roll Packaging film braking unit I-notching device Cutter device Packaging film shaft forward-backward moving device (operated manually) Air expelling roll Safety devices (Interlocks for safety) Product carry-out guide Packaging film pull-out roll (non-slip type) Universal bag guide 	<ul style="list-style-type: none"> Film end stop device Packaging film braking unit I-notching device Cutter device Packaging film shaft forward-backward moving device (operated manually) Air expelling roll Safety devices (Interlocks for safety) Product carry-out guide Packaging film pull-out roll (non-slip type) Universal bag guide
Options	<ul style="list-style-type: none"> Photocell type pattern matching device Film joint detector Packaging film shortage warning device Packaging film section cover Automatic removal device (At the starting time) Preset number divider Preset number shutter Vertical sealing pre-heater Vertical 4-side sealing Vertical paired sealing Bottle shape sealing device Stamping device Both sides I-notching device Remaining packaging film indicator Leakage detector Jammed horizontal seal detector Nozzle cooling device Calendar timer Hot printer Vertical slitter Vertical perforation device Calendar timer Hot printer Thermal printer Ink jet printer Hot roll printer Mono-pump Rotary pump Cascade pump Hyper pump High-speed intermittent pump (servo-type) Agitator Packaging film UV sterilizing device (Effective up to 10 m/min) Clean booth Packaging film wobble corrector Warning light Main frame Cooling blower Air compressor Air dryer 	<ul style="list-style-type: none"> Packaging film shortage warning device Packaging film section cover Automatic removal device (At the starting time) Preset number divider Preset number shutter Vertical sealing pre-heater Vertical 4-side sealing Vertical paired sealing Bottle shape sealing device Stamping device Remaining packaging film indicator Leakage detector Jammed horizontal seal detector Nozzle cooling device Calendar timer Hot printer Thermal printer Ink jet printer Hot roll printer Mono-pump Rotary pump Cascade pump Hyper pump High-speed intermittent pump (servo-type) Agitator Packaging film UV sterilizing device (Effective up to 10 m/min) Clean booth Packaging film wobble corrector Warning light Main frame Cooling blower Air compressor Air dryer
Features	<ul style="list-style-type: none"> Adjustment of positions can be made by use of switches, therefore the operation is safe. Production of 250 bags per minute or more is possible even when a photocell is used. Packaging film is pulled out using non-slip roll, and so mismatch of marking is very little. (Only ±1 mm according to actual measurement by this company.) A heater is built in the second horizontal sealing roll, therefore material that is prone to generate bubbles such as oil and vinegar can be sealed in steadily. To cope with elongation and shrinkage of the packaging film, a fine adjusting unit (Option) is provided. 	<ul style="list-style-type: none"> This machine is suitable for small bags, and the installation floor space is saved, but the production capacity is large. Adjustment of positions can be made by use of switches that are accessible with ease, therefore the operability is excellent. Thorough cost reduction has been achieved. <p>Note : The second horizontal sealing device is not provided.</p>

Specifications

Model	MR300	MR300-SS
Bag length	Fixed pitch (To cope with elongation and shrinkage of the packaging film, small amount of adjustment is possible.)	Fixed pitch
Film width	60 to 200 mm (200 mm is a 4-side sealing type)	50 to 160 mm
Packaging speed	5 to 24 m/min. (Varies depending on bag length)	4 to 16 m/min. (Varies depending on bag length)
Packing volume	1 to 100 cc	1 to 100 cc
Diameter of packaging film	φ 350 mm	φ 350 mm
Dimensions	1,300 wide × 650 deep × 2,100 high (mm)	830 wide × 650 deep × 1,850 high (mm)
Weight	750 kg	500 kg
Power supply	3-phase, 200 VAC, 50/60 Hz (4.8 kW at peak, 2.5 kW on the average)	3-phase, 200 VAC, 50/60 Hz (3.2 kW at peak, 2 kW on the average)
Air consumption	—	—

*Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *The range of quantity of material to be sealed in varies depending on delivery of the pump.

Automatic liquid and paste packaging machine

High Grade Model

T1 SERIES

This series of packaging machines is used for packaging paired material such as liquid and powder, paste and powder, etc.

MR6-T1

Used for packaging

Basting sauce for broiled eel and Japanese pepper, Chinese noodle soup and powder soup, sauce and green laver, etc.



MR300-T1

Used for packaging

Basting sauce for broiled eel and Japanese pepper, Chinese noodle soup and powder soup, sauce and green laver, etc.



	MR6-T1	MR300-T1
Standard configuration	<ul style="list-style-type: none"> • Photocell type pattern matching device • Film joint detector • Film end stop device • Heater for second traverse sealing roll • Packaging film braking unit • I-notching device • Cutter device • Packaging film shaft forward-backward moving device (operated by operation panel) • Air expelling roll • Safety devices (Interlocks for safety) • Product carry-out guide • Packaging film pull-out roll (non-slip type) • Vertical slipper • Vertical perforation device • Packaging film wobble corrector • Universal bag guide 	<ul style="list-style-type: none"> • Film end stop device • Heater for second horizontal sealing roll • Packaging film braking unit • I-notching device • Cutter device • Packaging film shaft forward-backward moving device (operated manually) • Air expelling roll • Safety devices (Interlocks for safety) • Product carry-out guide • Packaging film pull-out roll (non-slip type) • Vertical slipper • Vertical perforation device • Packaging film wobble corrector • Universal bag guide
Items whose data are stored in the memory	1. Bag length 2. Packaging speed 3. Sealing temperature 4. Sealing pressure 5. Volume to be sealed in (Number of revolutions) Patent No. 62134 6. Marking position 7. Marking ON/OFF 8. Cutting position 9. Position of perforation 10. Position of I-notch 11. Number of run of products in one cut 12. Position of printing 13. Timing of various operations, and other 30 items in total.	—
Options	<ul style="list-style-type: none"> • Perforation device • Packaging film shortage warning device • Packaging film section cover • Automatic removal device (At the starting time) • Preset number divider • Preset number shutter • Bottle shape sealing device • Stamping device • Remaining packaging film indicator • Leakage detector • Jammed horizontal seal detector • Nozzle cooling device • Thermal printer • Ink jet printer • Hot roll printer • Mono-pump • Rotary pump • Cascade pump • Hyper pump • High-speed intermittent pump (servo-type) • Agitator • Packaging film UV sterilizing device (Effective up to 10 m/min) • Clean booth • Warning light • Main frame • Cooling blower • Air compressor • Air dryer 	<ul style="list-style-type: none"> • Photocell type pattern matching device • Perforation device • Packaging film shortage warning device • Packaging film section cover • Automatic removal device (At the starting time) • Preset number divider • Preset number shutter • Bottle shape sealing device • Stamping device • Remaining packaging film indicator • Leakage detector • Jammed horizontal seal detector • Nozzle cooling device • Thermal printer • Ink jet printer • Hot roll printer • Mono-pump • Rotary pump • Cascade pump • Hyper pump • High-speed intermittent pump (servo-type) • Agitator • Packaging film UV sterilizing device (Effective up to 10 m/min) • Clean booth • Warning light • Main frame • Cooling blower • Air compressor • Air dryer
Features	<ul style="list-style-type: none"> ◆ A servomotor is used to drive the rotary disk. (It is different from conventional machines.) ◆ Material dropping timing can be stored in memory. ◆ Packaging film is pulled out using non-slip roll, and so mismatch of marking is very little. (Only ±1 mm according to actual measurement by this company.) ◆ A heater is built in the second horizontal sealing roll, therefore material that is prone to generate bubbles such as oil and vinegar can be sealed in steadily. 	<ul style="list-style-type: none"> ◆ Adjustment of positions can be made by the switches, therefore it is safe. ◆ Packaging film is pulled out using non-slip roll, and so mismatch of marking is very little. (Only ±1 mm according to actual measurement by this company.) ◆ A heater is built in the second horizontal sealing roll, therefore material that is prone to generate bubbles such as oil and vinegar can be sealed in steadily.

Specifications

Model	MR6-T1 Paired packaging	MR300-T1 Paired packaging
Bag length	50 to 180 mm	Fixed pitch (To cope with elongation and shrinkage of the packaging film, small amount of adjustment is possible.)
Film width	60 to 240 mm	60 to 200 mm
Packaging speed	30 to 120 bags/min.	4 to 16 m/min. (Varies depending on bag length)
Packing volume	Powder : 2 to 10 cc, Liquid : 3 to 80 cc	Powder : 2 to 10 cc, Liquid : 3 to 80 cc
Diameter of packaging film	φ 350 mm	φ 350 mm
Dimensions	1,450 wide × 1,430 deep × 2,230 high (mm)	1,700 wide × 980 deep × 2,300 high (mm)
Weight	850 kg	800 kg
Power supply	3-phase, 200 VAC, 50/60 Hz (4 kW at peak, 2 kW on the average)	3-phase, 200 VAC, 50/60 Hz (4.8 kW at peak, 2.5 kW on the average)
Air consumption	—	—

*Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *The range of quantity of material to be sealed in varies depending on delivery of the pump.

Automatic liquid and paste
Packaging machine
Light • Compact • Low price
Model

FR - 1 SERIES

FR - 1C



- Compact design.
- Effective use of space.

FR - 1C	
Standard functions	* Photocell registration mark control * Film joint detector * Film end detector * Heaters for 2 nd horizontal sealer * Brake unit for film * I-notcher * Cutter (frame removable by one touch) * Adjusting device for film position * Safety devices (interlocked) * Slide for packages made * Adjustable film forming guide * Film feeding device with non-slip roller * Clearance adjusting device for 1 st horizontal sealer * Bag top forming device with motor-driven roller * Indicator for film volume (used/unused) * Storing and setting various data and timings * Operation panel (touch panel)
Storable data	1. Packaging speed 2. Sealing temperature 3. Volume to be filled 4. Package length 5. Position of I-notch 6. Cutting position 7. Registration mark position 8. Printing position 9. Sealing pressures 10. Various timings and many others. Storable up to 30 items.
Option	* Perforation cutter * Divider of packages by preset number * Shutter to accumulate packages by preset number * Various date printers (hot printer, thermal printer, ink jet) * Changeable horizontal seal rollers * Various pumps for filling product * UV sterilizer for film * Clean booth for product filling process * Product sterilizer by heating * Cooling device * Zigzag cutter * Cartoning device
Features	<ul style="list-style-type: none"> ◆ Cutting device is removable by “one-touch”, the same type equipped with ZERO-1 ◆ Appropriate sealing pressure can be registered by means of numerical data for each product. ◆ Shape and width of the horizontal seal, including intricate seal patterns, can be changed simply by changing horizontal seal rollers without removing bearings at both ends. (Option) ◆ Volume to be filled can be registered by setting the number of revolutions of the pump. (Patent granted)

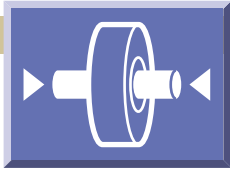
Specification

Model	FR - 1C
Ranges of bag length	55~160mm (with 3-up sealing head) / 45~100mm (with 4-up head)
Film width	MAX : 240mm
Packaging speed	30 ~ 200bags/min MAX 15m/min *
Packaging volume	1~200cc **
Diameter of packaging film	MAX : 450
Dimensions	1,370wide × 850deep × 2250high(mm)
Weight	750Kg
Power supply	3-phase,200VAC 50Hz/60Hz (7.5 KW at peak / 4.0KW on the average)
Air consumption	0.5 Mpa 150NL/min

* : Actual packaging speed will vary depending on specifications of the machine, filling volume, physical properties of the film and product to be packaged.

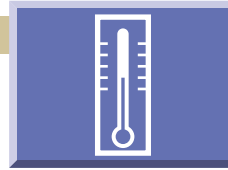
** : Range of filling volume will vary depending on the volume of product discharged from the pump.

The innovational functions of this machine will satisfy the user's needs.



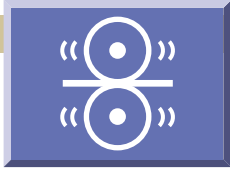
Automatic aligning function

The packaging film is automatically aligned.



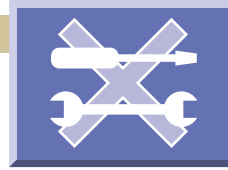
Temperature control function

The temperature of sealing rolls (vertical, horizontal 1, and horizontal 2 roll) is controlled.



Non-slip roll

The non-slip roll developed by our company prevents deviation from the correct pitch of feed. (Only ± 1 mm according to actual measurement by our company.)



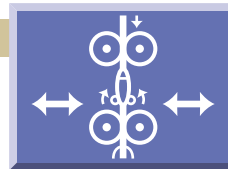
No tool is required.

No tool is required to adjust the machine for change of packaging film width, to move the nozzle position, and so on.



Touch panel

The operability has been improved by providing the touch panel that is easy to see. (FR1・MR7)



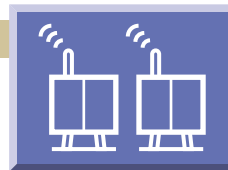
Air expelling roll

Owing to use of the rolls, even the material containing ingredients can be charged smoothly. The degree of expelling air is adjustable using a dial.



Fine adjustment function

Fine adjustment in increments of 1 mm can be made easily during operation.



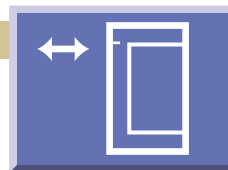
Centralized monitoring system

Critical point monitoring system can be connected. (FR1・MR7)



Improved workability

Since the height of the packaging material shaft is low, the operator can handle the packaging film with ease. (FR1・MR7)



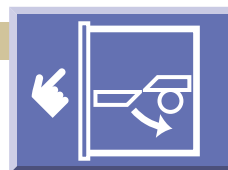
I-notch

The depth of I-notch can be adjusted during operation using a handle.



Angle adjusting function

The angle of the perforation and cutter blades can be adjusted during operation using the handle.



Safety oriented design

Various interlocks for safety have been provided to ensure safety of the operator.

Option : Material charging pump



Mono-pump



CP pump



Cascade pump



Hyper pump (for liquid)



Hyper pump (for paste)

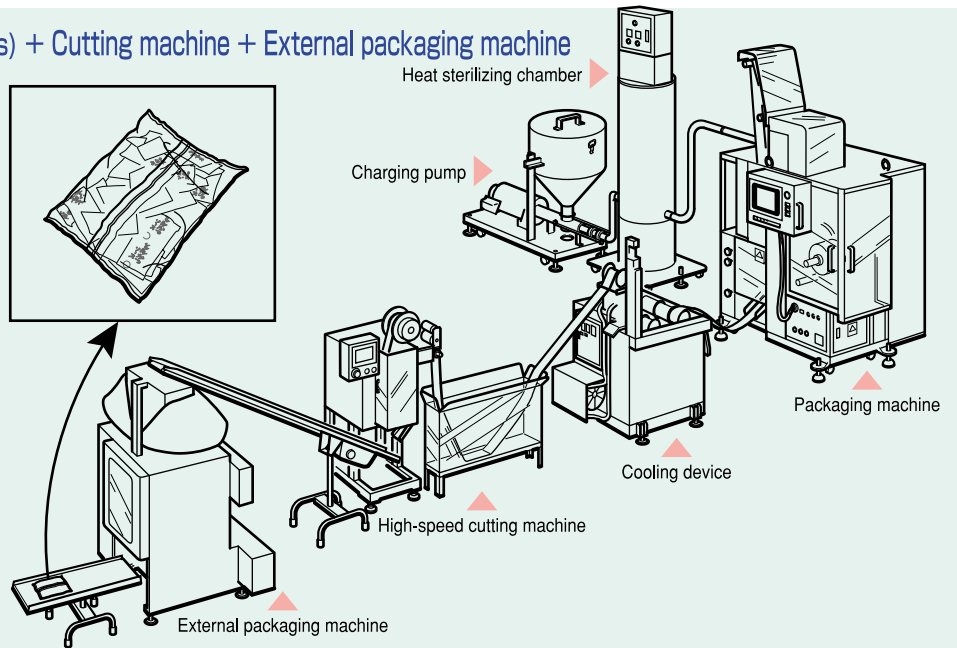


Intermittent pump (Servo type)

Examples of packaging lines

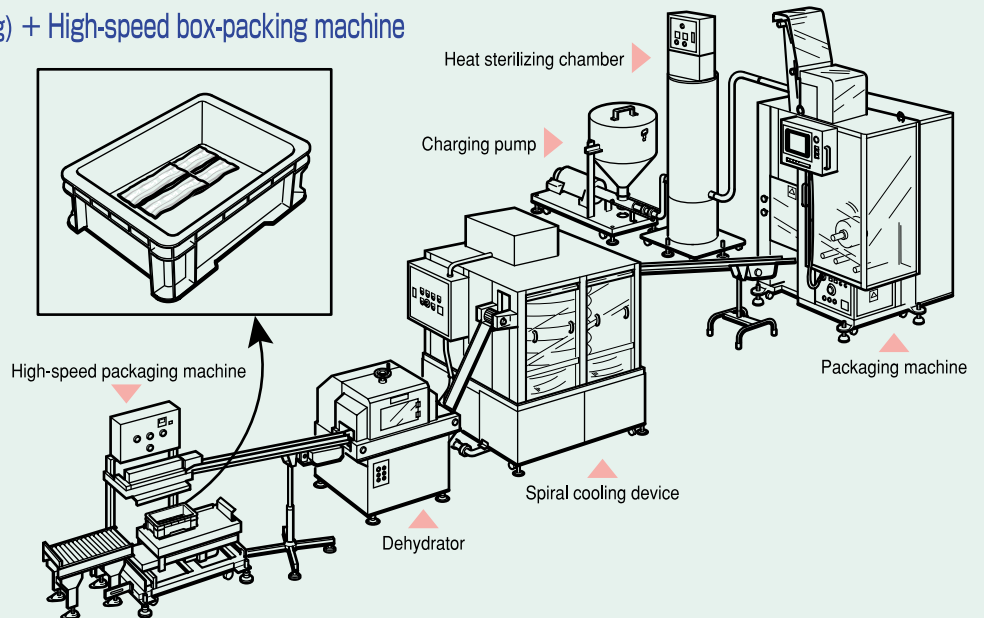
1 FR1 + Cooling device (Multiple bags) + Cutting machine + External packaging machine

- Material sterilized by heating is sealed in by 3-side or 4-side sealing. The multiple bags are cooled down (or heated up), cut, and the products are packed in an external bag.



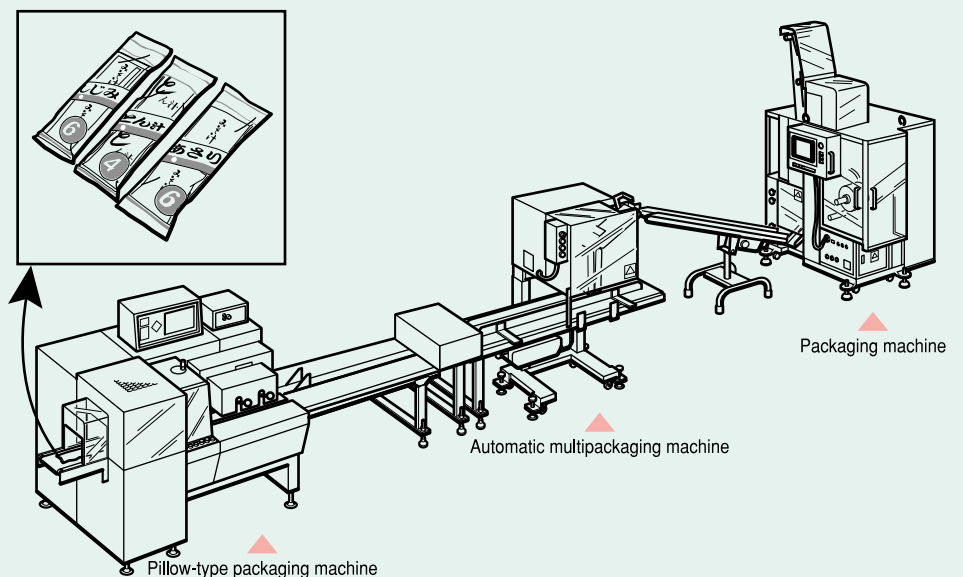
2 FR1 + Cooling device (Single bag) + High-speed box-packing machine

- Material sterilized by heating is sealed in by 3-side or 4-side sealing. The bags are cut, cooled down, and packed in a box. This packaging line is suitable for cooling and packaging of big bags.



3 FR1 + Automatic multipackaging machine + Pillow-type packaging machine

- Material is sealed in by 3-side or 4-side sealing, and cut into multiple bags. The bags are piled up and packaged by the automatic multipackaging machine. External packaging is carried out by the pillow-type packaging machine.



External packaging machine

MPS Series "Catcher" : A micro-computer is built in.

The MPS-2K and MPS-3K have been developed as external packaging machines for parts and small bags. Since packaging film is made of Pe, packaging cost is reduced. Since a micro-computer is built in, setting is easy and the data is stored in the memory. This machine can be connected also to a packaging machine made by manufacturers other than our company.



Specifications

Model	MPS-2K	MPS-3K
Bag length	30 to 330 mm	430 to 495 mm
Packaging speed	Bag length 165 mm max. — 12 bags/min. Bag length 330 mm max. — 8 bags/min.	Bag length 165mm max. — 8 bags/min. Bag length 330mm max. — 5 bags/min. Bag length 495mm max. — 3 bags/min.
Film width	430 to 630 mm	430 to 930 mm
Packing volume	4 kg max. (Depends on the object to be packaged)	8 kg max. (Depends on the object to be packaged)
Power supply	3-phase, 200 VAC, 50/60 Hz (4 kW at peak, 1 kW on the average)	3-phase, 200 VAC, 50/60 Hz (5 kW at peak, 1.5 kW on the average)
Air consumption	0.5 MPa, 150 to 450 NL/min.	0.5 MPa, 150 to 550 NL/min.

Labor saving machine Peripheral Equipment

High-speed folding machine

This machine folds small multiple bags of preset number and packs into a box. When the number of bags packed in the box reaches the preset number, automatically the box is replaced by the next box.



Specifications

Model	KE-1000
Packaging speed	40 m/min. (When the box is 580 mm breadth.)
Pouch specification	Packaging specification : 3-side, 4-side sealing Width : 50 to 90 mm (30 to 100 mm is possible by replacing swing chute.) Length : 30 to 100 m Thickness : 20 mm max.
Dimensions of box	Breadth : 380 to 580 mm Width : 200 to 350 mm Height : 100 to 310 mm
Air consumption	0.5 MPa, 80 NL/min.
Power supply	3-phase, 200 VAC, 50/60 Hz, 2.5 KVA

High-speed box-packing machine

This machine arranges and packs small bags, which are cut by the liquid sealing-in machine, into a box. When the number of bags packed in the box reaches the preset number, automatically the box is replaced by the next box.

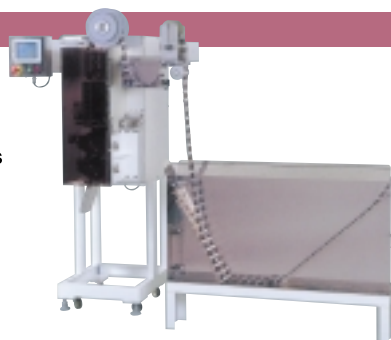


Specifications

Model	CS-101	CS-150
Packaging speed	Single bag 240 bags/min. (Pitch 100 mm) 2-bag 120 bags/min. (Pitch 100 mm)	—
Pouch specification	Bag length : 70 to 130 mm Bag width : 65 to 100 mm Length of successive bag : 340 mm max.	Bag length : 70 to 130 mm Bag width : 65 to 100 mm Length of successive bag : 500 mm max.
Dimensions of box	Width : 250 to 400 mm Depth : 300 mm Height : 200 mm max.	Length : 400 to 550 mm Width : 450 mm max. Height : 290 mm max.
Weight of box packed with bags	15 kg	—
Power supply	200 VAC, 220 VAC, 50/60 Hz	—
Power consumption	1 KVA	—
Air consumption	0.5 MPa, 20 NL/min.	—
Weight	100 kg	—

High-speed cutting machine

This machine is a cutting machine with perforation device and I-notching device for successive pouch, and it is adaptable to a high-speed packaging machine.

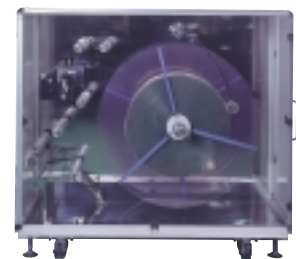


Specifications

Model	KS-2000
Cutting speed	300 cut/min., 30 m/min. (Feed)
Pouch specification	Width : 45 to 100 mm, Length : 45 to 230 mm
Power supply	3-phase, 200 VAC, 50/60 Hz, 2.5 KVA
Weight	Approx. 200 kg

PL-800 : Large size packaging film holding system

This machine holds packaging film of large coil diameter up to 800 mm. When the thickness of packaging film is 70 micrometers, packaging film of 5000 meters long can be held.



Specifications

Model	PL-800
Packaging speed	35 mm max.
Packaging film width	260 mm (Machine of special specification is available.)
Maximum coil diameter	φ 800 mm
Power consumption	250 W



自動包装機の専門メーカー
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