

FR3

:High speed type

Used for packaging

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



FR3	
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 • Centralized 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	FR3
Bag length	30 to 60mm, 30 to 80mm, 40 to 105mm, 50 to 145 mm, 60 to 200 mm, 90 to 300 mm
Film width	60 to 300 mm (300 mm is a 4-side sealing type)
Packaging speed (*1)	60 to 600 bags/min.
Packing volume (*2)	1 to 500 cc
Diameter of packaging film	ϕ 450 mm
Dimensions	1,360(W) \times 980(D) \times 2,490(H)mm
Weight	1,200 kg
Power supply	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.

*1: Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *2: The range of quantity of material to be sealed in varies depending on delivery of the pump.

FR3-[]L
:Multi-line type

Used for packaging

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



MR10-[]L
:Multi-line type

Used for packaging

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



	FR3-[]L	MR10-[]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 slitler •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 slitler •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 10m/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	FR3-[]L * []denotes number of rows. Four-side sealing only.	MR10-[]L * []denotes number of rows. Four-side sealing only.
Bag length	45 to 105 mm, 50 to 145 mm, 60 to 200 mm	40 to 75 mm (5-wing), 55 to 160 mm(3-wing), 70 to 210 mm (2-wing)
Film width	640 mm max.	400 mm max.
Packaging speed(*1)	30 to 400 bags/min. per line × Number of line	30 to 150 bags/min. per line × Number of line
Packaging volume(*2)	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(W) × 1,145(D) × 2,044(H) mm (Varies depending on the specifications)	1,680(W) × 1,320(D) × 2,200(H) mm (Varies depending on the specifications)
Weight	1,500 kg	1,400 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.	—

*1:Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in, *2:The range of quantity of material to be sealed in varies depending on delivery of the pump.

MR10

MR10

Used for packaging

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



MR10

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
Items whose data are stored in the memory	<ul style="list-style-type: none"> 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.
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 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 • Centralized monitoring system
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).

Specifications

Model	MR10
Bag length	40 to 75 mm (5-wing), 45 to 105 mm (4-wing), 55 to 160 mm (3-wing), 70 to 120 mm (2-wing)
Film width	60 to 260 mm (260 mm is a 4-side sealing type)
Packaging speed (*1)	30 to 200 bags/min.
Packing volume (*2)	1 to 150 cc
Diameter of packaging film	ϕ 450 mm
Dimensions	1,150(W) \times 700(D) \times 2,100(H) mm
Weight	800 kg
Power supply	3-phase, 200 VAC, 50/60 Hz (7.5 kW at peak, 4 kW on the average)
Air consumption	—

*1: Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *2 The range of quantity of material to be sealed in varies depending on delivery of the pump.

MR300 SERIES

MR300

Used for packaging

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



MR300	
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
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 • 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-type9) • Agitator • Packaging film UV sterilizing device(Effecticve 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.

Specifications

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

*1:Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *2:The range of quantity of material to be sealed in varies depending on delivery of the pump.

MR8-T1

Used for packaging

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



MR300-TL

Used for packaging

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



	MR8-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	MR8-T1 Paired packaging	MR300-T1 Paired packaging
Bag length	45 to 105 mm (4-wing), 55 to 160 mm (3-wing), 70 to 210 mm (3-wing)	Fixed pitch (To cope with elongation and shrinkage of the packaging film, small amount of adjustment is possible.)
Film width	60 to 260 mm (260 mm is a 4-side sealing type)	60 to 200 mm
Packaging speed (*1)	30 to 150 bags/min.	4 to 16 m/min. (Varies depending on bag length)
Packing volume (*2)	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 450 mm	φ 350mm
Dimensions	1,285(W) × 1,270(D) × 2,360 (H) mm	1,700(W) × 980(D) × 2,300 (H) 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 (4.8 kW at peak, 2.5 kW on the average)
Air consumption	—	—

*1: Actual packaging speed varies depending on the packaging film, and quantity and property of material to be sealed in. *2:The range of quantity of material to be sealed in varies depending on delivery of 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.(MR9)



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 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.(MR9)



Improved workability

Since the height of the packaging material shaft is low, the operator can handle the packaging film with ease.(MR9)



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)

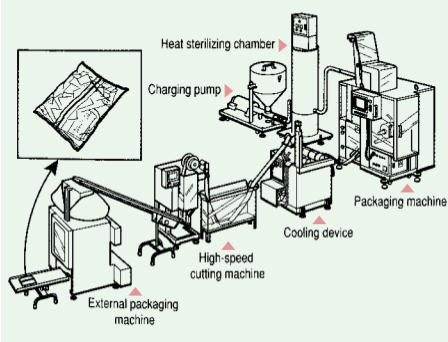


Intermittent pump(Servo type)

Examples of packaging lines

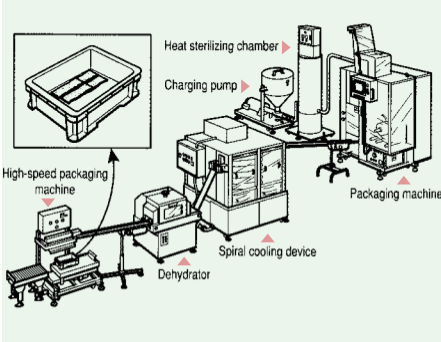
1 MR10+Cooling device (Multiple bags) + Cutting machine + External packaging machine

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 MR10+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 MR10+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.

