



BAG2PACK®

AND ITS PACKAGING SYSTEM



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BAG2PACK® presents

MAKINATY RSTD 55

Automatic filler with a single filling head for noncarbonated liquids and viscous products in self-standing pouches with a flat rectangular base.





DESCRIPTION

VFFS-TYPE FILLER AND ITS CAROUSELS

The **MAKINATY RSTD 55** is a VFFS-type fully automatic packaging filler.
(Vertical Form Fill Seal) with a single filling head.



Width: 2300 mm x depth 4625 mm
Height: 2474 mm



DESCRIPTION

VFFS-TYPE FILLER AND ITS CAROUSELS



- The structure (filler and carousels) is assembled on 304L stainless steel (SS) frames.
- Unwinding, sealing jaws and carousels are operated by brushless engines.
- The filler is monitored and operated by a PLC through a Profibus.
- The operator controls the different functions thanks to a touch screen.



DESCRIPTION

VFFS-TYPE FILLER AND ITS CAROUSELS

It consists in, in the rear part; film unwinding level :

- A reel support with an expandable pneumatic chuck (compressed air)
- A tray to change the reel
- A tray for date printing on the film by inkjet or heat ribbon coder
- An unwinding system thanks to the motorized and tension rollers to control the speed and pulling of the film
- An integrated water cooling group with closed circuit





DESCRIPTION

VFFS-TYPE FILLER AND ITS CAROUSELS

In the central part; conditioning and injection level:

- A 316L SS injection tube wrapped with a forming structure and fitted with a filling rod controlled by an actuator for flow regulation (Bürkert type).
- A pulling film system through two rubber belts fitted on each side of the forming structure and driven by brushless engines.
- An electric photocell to detect the spot on the film, at the level of tube nozzle.
- A mechanical vertical jaw to seal continuously the overlap of the film.
- A mechanical balancing horizontal jaw fitted with a central mechanical cut to seal and cut the filled pouches.





DESCRIPTION

VFFS-TYPE FILLER AND ITS CAROUSELS

In the front part: shaping of the pouches base :

- Two carousels, one on the right side (fixed) and one on the left side (mobile). Both carousels are fitted with a rotary system of arm clips to maintain the pouches at the top and shape their base. Then the pouches are put in upright position on the exit conveying belt.
- Both the shaping and the sealing of the pouches bottom are located in the filler axis between the two carousels





WORKING PROCESS MAKINATY RSTD 55



LOADING OF PRE-FORMED ROLLS

- The pre-formed film is delivered on pallets 100 x 120 or 140 x 140 mm in rolls with outer diameter 800mm. The rolls laid on the pallet and fitted on 3'' (76mm) core diameter are protected individually by two honeycombed PP flasks and wrapped by an outer film.
- The quantity of pouches per roll is related to sizes of ELIPSE® pouches for filling. For the 500ml volume, a 2h30-production per roll is guaranteed.
- The operator handles each roll with a lifting device to put it on the unwinding chuck of the filler.
- Before starting up the machine, the operator leads the film manually up to the front part of the machine
- When changing the reel, a spot on spot connection guarantees a constant pace, and thus a great continuity in the operations and a minimal material waste.





UNWINDING SYSTEM

The unwinding system of the film consists in an expandable, motorized and pneumatic chuck and a tension roller to regulate the speed and tension of the film.

The alternative pulling of the film from the front part of the filler is made by a rubber belt system driven by a brushless motor and controlled by a photocell reading the eye mark printed on the film.

Date and code printings are made by an inkjet system in the rear part of the filler. It is controlled by photocell and printing is made on specific location during the unwinding of the film.



Unwinding of film



Film tension system



SHAPING

The pulling in the upper front part of the filler guarantees the guiding of the film and puts the foil in upright position for the vertical sealing.

The operation, made by impulsion thanks to a vertical electrode, provides an uninterrupted longitudinal and airtight seal that gives the pre-formed film its tubular shape.





FILLING

The filling is made by a filling tube with a pneumatic actuator, controlled by the plc.

For products with a high viscosity, the injection may be alternative and the feeding can be made through a volumetric pump or a dosing system.

If a hot filling is required, the machine is fitted with a double wall filling tube and, if necessary, with adapted pump or dosing system. In this case, a nitrogen gas injection can be made by an additional filling tube.





HORIZONTAL SEALING

The foil shaped and sealed around the tube and pulled by the belts will be filled above the balancing jaw.

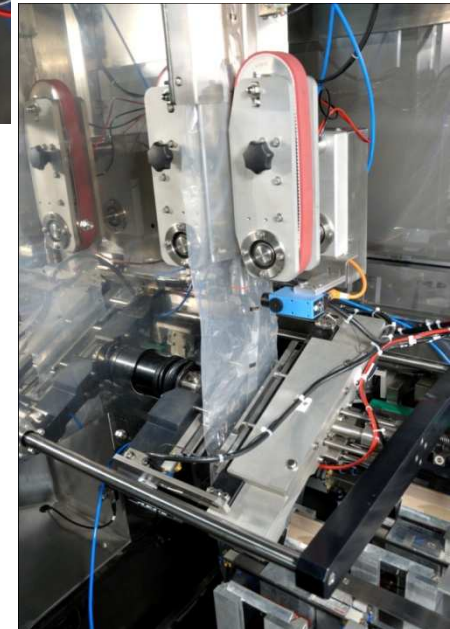
This jaw is alternatively rotating from the right side to the left side, it presses the film and then seals and cut the pouch.

One pouch is then released after each tilt.

Vertical jaw



Horizontal balancing jaw





THE ARM CLIPS

The arm clips of the opposed carousels move alternately.

Simultaneously of the closing of the balancing jaw, the arm clip grips the top of ELIPSE® pouch which topples, in upright position.





SHAPING AND SEALING THE POUCHES BASES

The arm clip slowly conveys the pouches, puts them above an anvil that lifts and presses the bases, while the side flaps drain and seal the bottom corners.



The next step is when the base corners are overlapped and sealed together. Then the pouch is put in upright position on the exit conveying belt.





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