

ENFLEX

F11 DUPLEX





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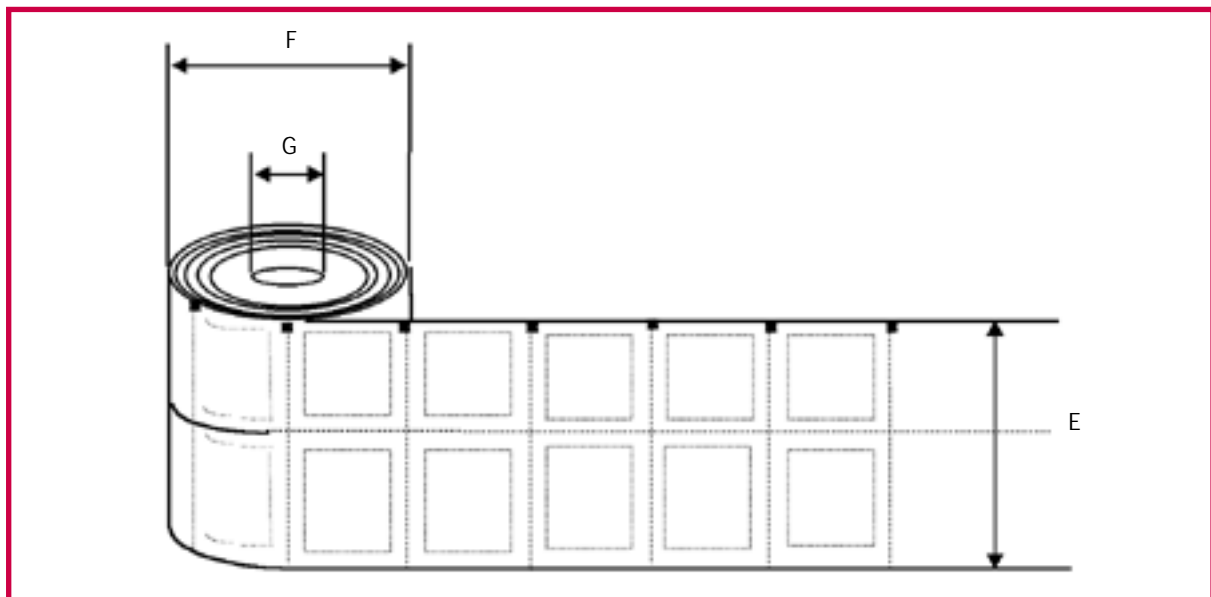
HORIZONTAL PACKAGING MACHINE, MODEL F11 DUPLEX

Type of machine: Horizontal packaging machine with intermittent motion to make flat bags, with three or four seams, from a reel of material sealing with heat at constant temperature.

Format:	Width	Min. 40 mm.	Max. 65 mm.
	Height	Min. 40 mm.	Max. 130 mm.

Filling:	Flat bag with 3 seams	Max. 60 cc.
	Flat bag with 4 seams	Max. 50 cc.

Reel dimensions: Max. Diameter 450 mm. (F)
Max. Width 260 mm. (E)
Core diameter 70/72 mm. (G)



Width of sealing: Standard 6 mm.

Type of sealing: Standard, straight striped, pitch 1,5 mm.

Noise level: Under 70 dB. as per DIN 4563 standard

Safety: This model is designed and made to EC norms.

GENERALITIES

This horizontal pouch packaging machine is available in Simplex and Duplex versions and can produce up to 220 pouches per minute.

Since its operation includes making the pouch, filling it and cutting it off only at the end, single, twin pouches joined with perforations, and even strips of ten pouches can be made on the same machine.

The F11 can equip a great variety of filler types: volumetric filler for grain products, auger filler for powders and piston for liquids.

The towel feeder deserves special mention as it was specially developed for this model and can work in simplex or duplex for swabs, and even for non-woven towels etc.



FINISH

All ENFLEX machines are finished and treated with the anti-corrosion paint and treatment especially appropriate to a wide range of applications, such as pharmaceutical laboratories, agricultural products, etc.

The exterior and interior finish of the whole unit, made up of the frame, main plate, covers, doors and large surface supports undergoes the following painting and treating processes:

1. Cleaning and degreasing by dipping.
2. Trickling with SA 2,5 sand as per SIS-055900/1967 standards.
3. Painting with a 40-micron epoxy anticorrosion-priming coat, without lead or chromium.
4. Puttying as needed.
5. Sanding of puttied parts.
6. Painting with a 100-micron undercoat of Acrylic-Polyurethane.
7. Final sanding.
8. Final ENFLEX 40-micron grey Metallized Polyurethane paint.

All the exterior parts of the machine fall into one of the two basic finishing types, whether they are or not in contact with the product.

The parts of the machine that are in contact with the product are made of several types of stainless steel to preserve the integrity of the products and resist the action of aggressive cleaning products.

The other exterior parts of the machine, which are not in contact with the product, have a 20-micron chemical Nickel coating.

The exterior part of the machine has other elements, such as bellows, screws, axles, etc. Each one of these elements is made of the materials and undergoes the treatment most adequate to its own application or closeness to the product being filled, or to the characteristics of the materials used to make the bag.

Inside the machine, all the parts not made of stainless steel are finished with a surface treatment of black zinc coating.

UNWINDER

The unwinder is designed to hold a reel of 450 mm. maximum diameter and 260 mm. maximum width. It is made up of a reel holder, an unwinding device, a brake and, optionally, an end-of-reel detector. The whole unwinder is covered by transparent guards.

The proportional brake ensures smooth unwinding, without jerks, even though the reel weight varies with the amount consumed by the machine. All this is extremely important if we wish to avoid tension in the paper during the bag making process.

The unit guarantees the correct supply and unwinding of the wrapping material.

The reel holder is extendible to facilitate reel insertion and extraction and to provide rapid reel fixing.



BOTTOM SEALING

This device makes the bag bottom seals.

It is made up of two sealing jaws with a resistance and a resistance thermometer type probe each, which allows for independent monitoring and regulation of temperature, as well as fault detection for each sealing jaw.

The jaws are fully mechanical and they operate intermittently in synchronization with the whole machine through a cam / lever mechanism.

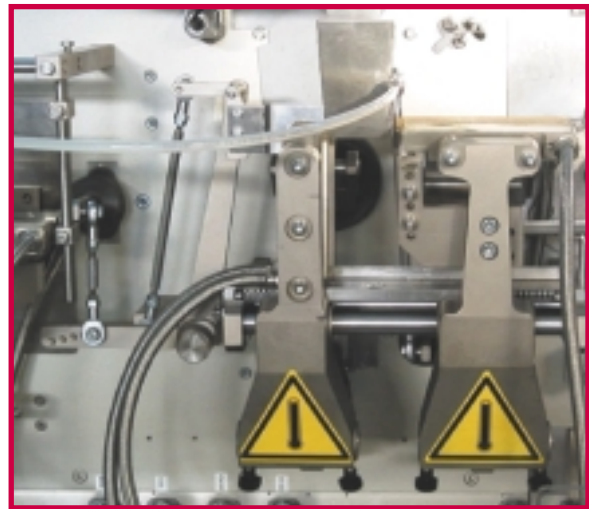
Regulation is achieved through an aligning system, so that the sealing jaws fit perfectly in an accurate parallel position all along the paper passage line. In addition, a spring regulates the sealing pressure.



OPENER

This device keeps the two sides of the paper apart, so that the filling funnel is easily introduced and the vertical sealing is performed correctly.

It operates intermittently in synchronization with the whole machine through a cam / lever mechanism.



VERTICAL SEALING

This device makes the bag vertical sealing.

It is made up of two sealing jaws with a resistance and a resistance thermometer type probe each, which allows for independent monitoring and regulation of temperature, as well as fault detection for each sealing jaw.

The jaws are fully mechanical and operate intermittently in synchronization with the whole machine through a cam / lever mechanism.

Regulation is achieved through an aligning system, so that the sealing jaws fit perfectly in an accurate perpendicular position all along the paper passage line. In addition, a spring regulates the sealing pressure.



DRAWING

This device makes the bag making material go forward and places the printing with reference to the size of the bag.

The drawing system is monitored by a photocell that regulates the drawing travel by reading a spot, and it makes it correspond perfectly with the printing on the reel. This photocell is situated on the paper guides.

Drawing is achieved through an arm with a clip that holds the wrapping material and pulls it. This operation is monitored by an electric brake that receives the information from the photocell.

It operates intermittently in synchronization with the whole machine through a cam / lever mechanism.



CUTTER

The cutter separates the bags once they have been made. This is achieved by the movement of two blades operated by a cam / lever mechanism.

Considering the fact that these parts do wear off, they are designed in a way to make removal and mounting very easy and without maintenance.

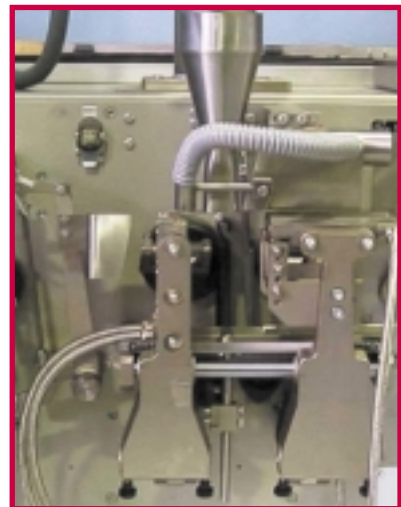


FILLING STATION

In this station a filling element introduces the product (two elements if working in duplex format) through the top of the bag.

These filling elements vary with the bag size and the product fed. Subject to these parameters, the following elements may be provided: funnels in different sizes for solid products, nozzles for liquid, nozzles for pasty products, etc.

In addition, there are other optional accessories that can be mounted as required, such as dust suction holes to remove the waste, bottom vibrator for best filling of bags, etc.



TOP SEALING

This device performs the top sealing of the bags after filling. With this operation, the bag is finished and ready to be removed, either by means of an extractor or an outlet ramp.

It is made up of two sealing jaws with a resistance and a resistance thermometer type probe each, which allows for independent monitoring and regulation of temperature, as well as fault detection for each sealing jaw.

They operate intermittently in synchronization with the whole machine through a cam / lever mechanism.

Regulation is achieved through an aligning system, so that the sealing jaws fit perfectly in an accurate parallel position all along the paper passage line. In addition, a spring regulates the sealing pressure.



BAG OUTLET

The standard bag outlet is a ramp that ejects bags out of the machine through gravity.

The height of this ramp can be regulated to obtain the best bag outlet.

There are two alternatives to this outlet ramp.

The first option is a conveyor belt driven continually by a reducing motor. This conveyor belt is complemented with an outlet ramp or an extracting system with suction pads.

The second option is a counting, grouping belt driven by two reducing motors at different speeds. The slow speed makes groups as required by the customer. Separation between groups is obtained with the fast speed. This second option requires the above indicated extracting system.



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