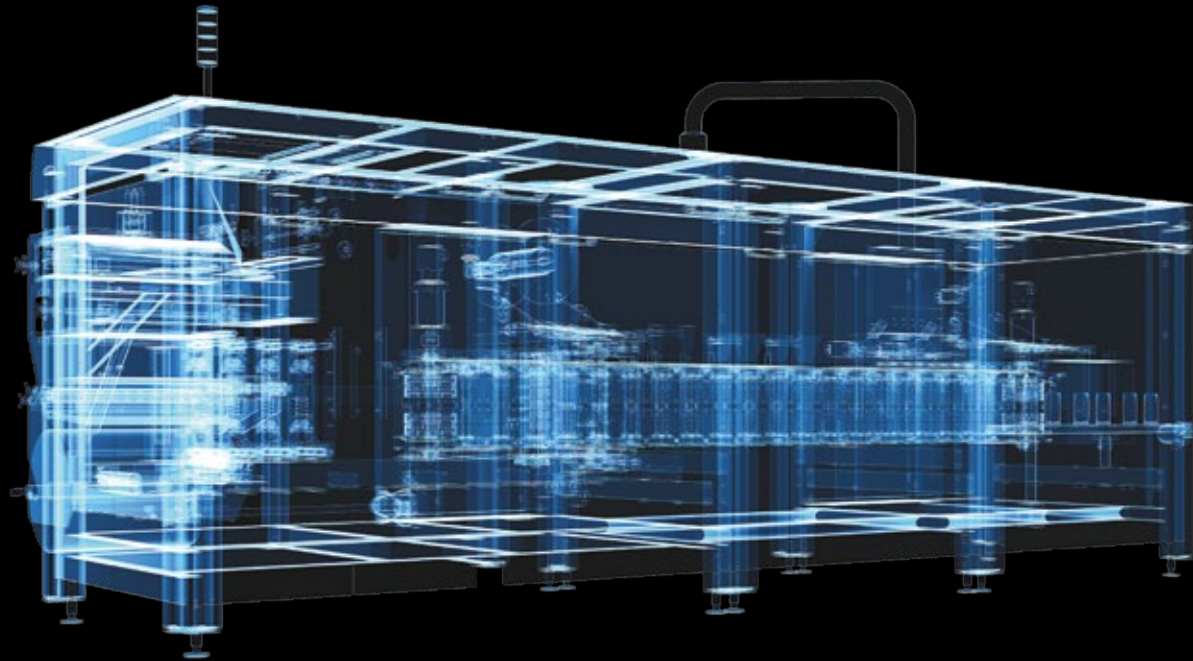


PFM D-Series

Stand-Up Pouch Machinery



PFM D-Series

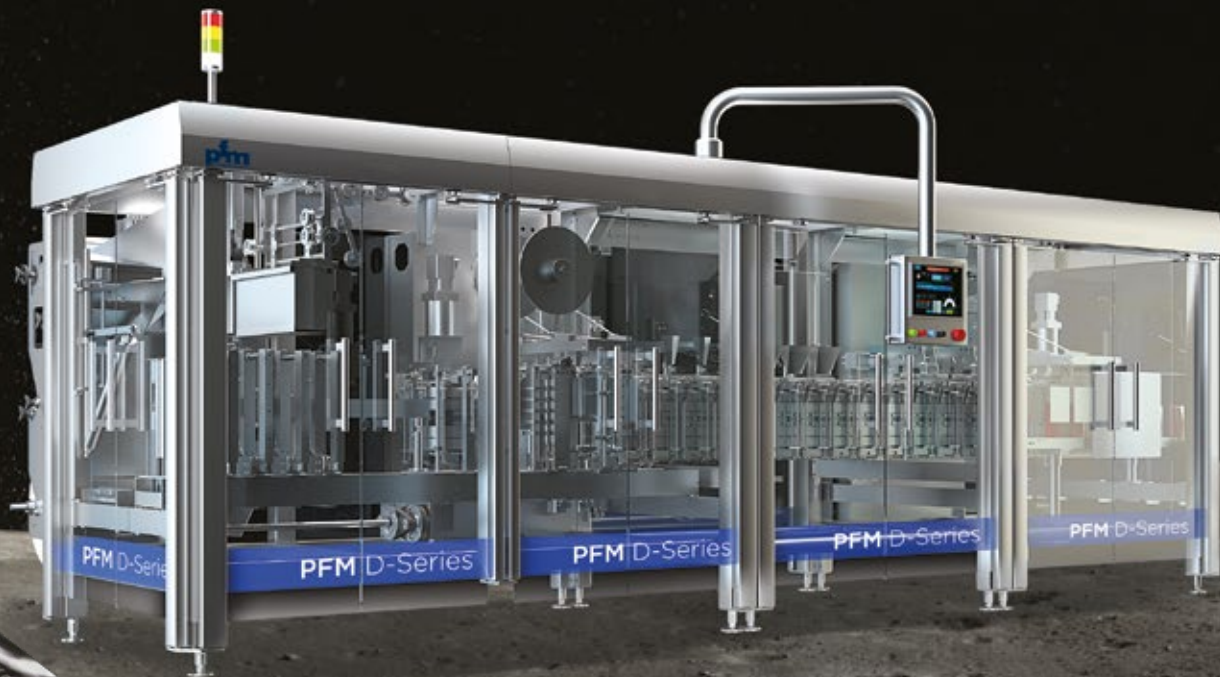
Stand-Up Pouch Machinery





PFM D-Series: **the Next Generation** Stand-Up Pouch Machine

With the PFM D-Series a new concept of Stand-Up Pouch Machine has been born, with the most innovative operating and manufacturing standards known to the sector, unique to PFM.



PFM D-Series: **Why**

The top 6 product innovations.





Simple



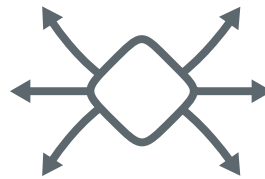
Modular



Accessible



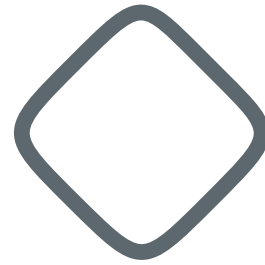
Compact



Flexible



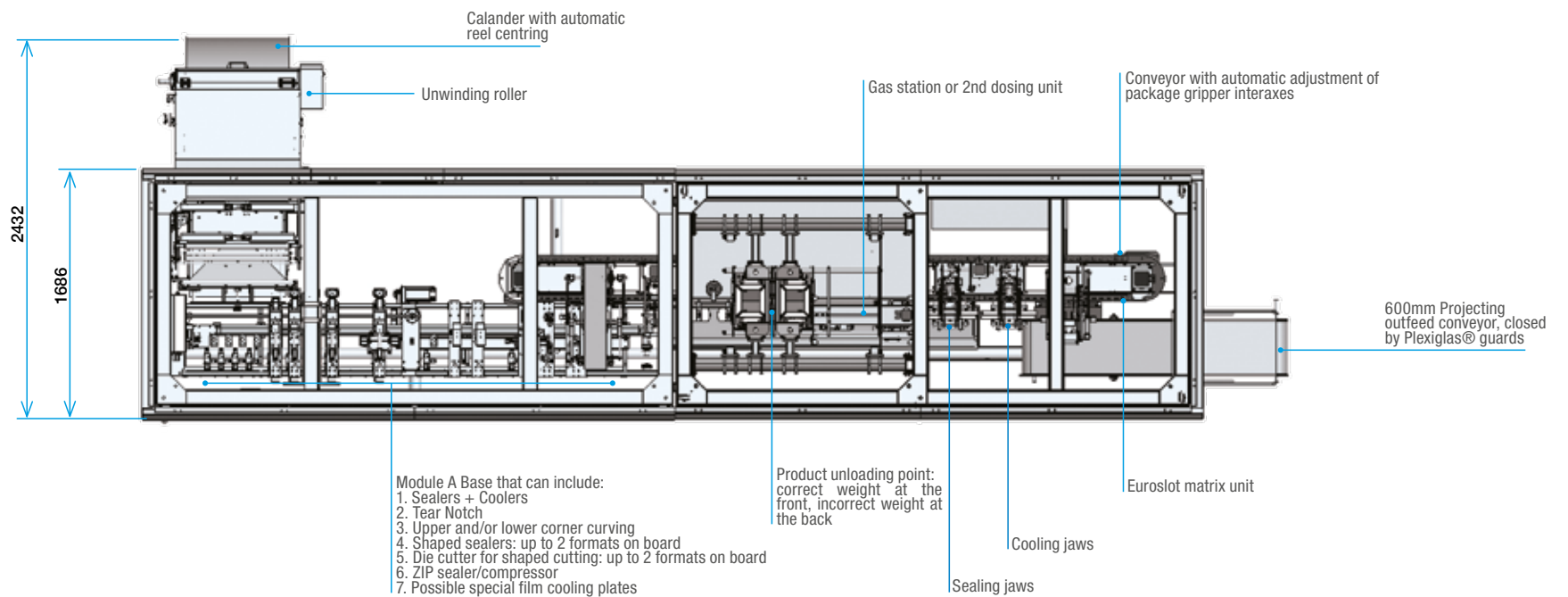
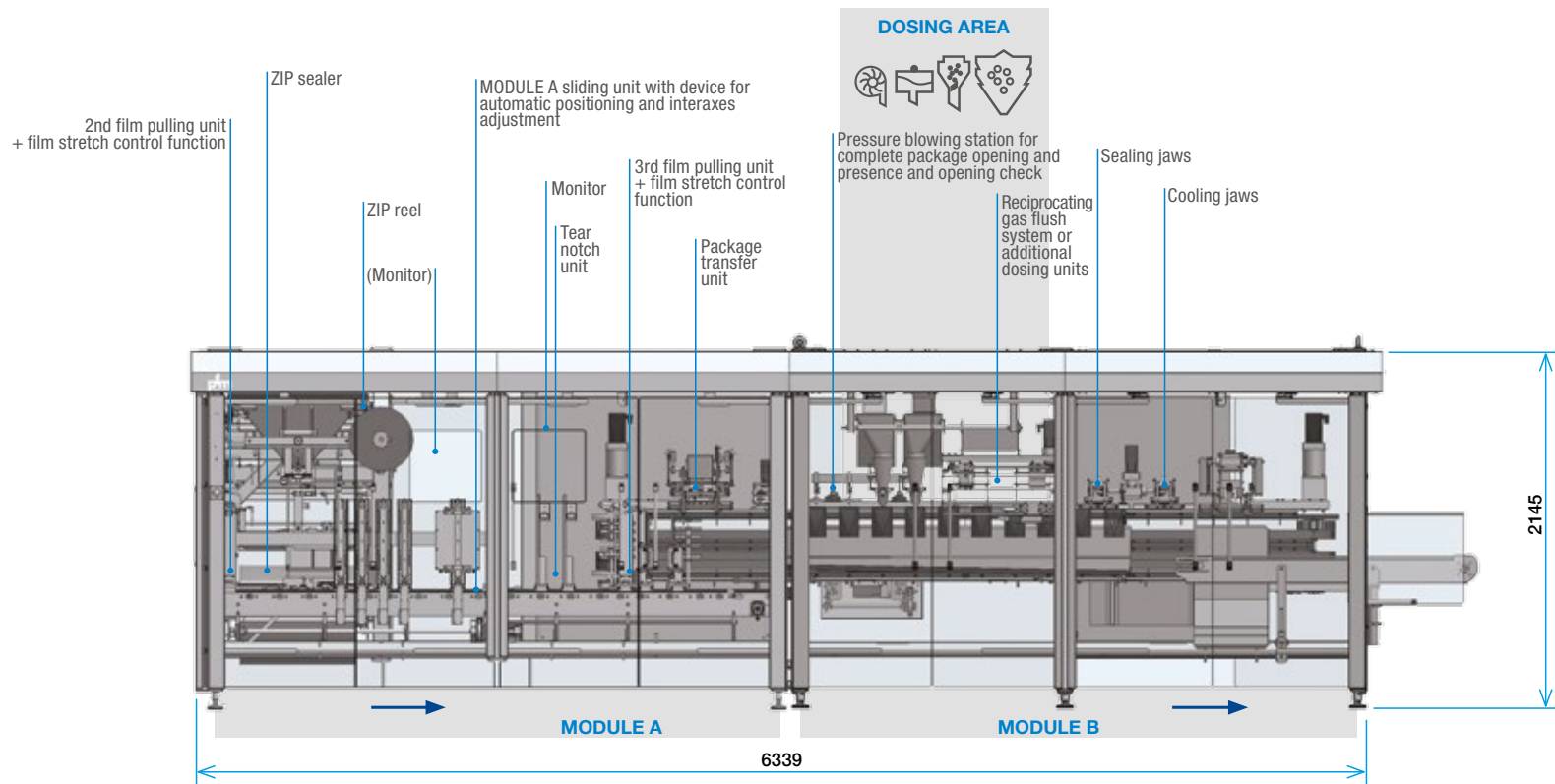
Safe



Simple

All machine functions and packaging parameters are electronically controlled by brushless motors (16 to 20) and are managed through the touch-screen panel.

The whole pneumatic system is electronically controlled. All the machine's pneumatic devices are connected to the touch screen panel via Ethernet.





Modular

It is a single machine with modular functions! D-SERIES consists of 2 different modules that can be set independently. MODULE A forms the pouch up to the cutting stage, or in other words until the two pouches are separated. MODULE B takes the pouch without ever releasing it until the packaging process is completed. In MODULE B the pouch is opened, checked, filled, washed with gas if necessary, sealed and finally cooled down. The machine can be fitted with the following additional modules: Metal detector, X-Ray Module, Secondary Packaging.



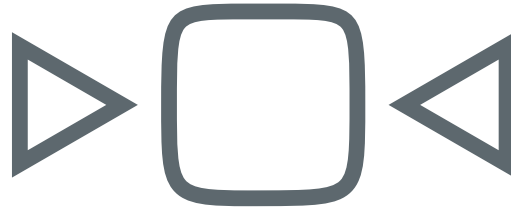


Accessible

We wanted to create a machine with a “Portal” building concept.

This means that the container is protected by screens, real doors, that house all the mechanical and electronic components of the machine. As a result, operators can easily access the machine without having to remove guards or protections.

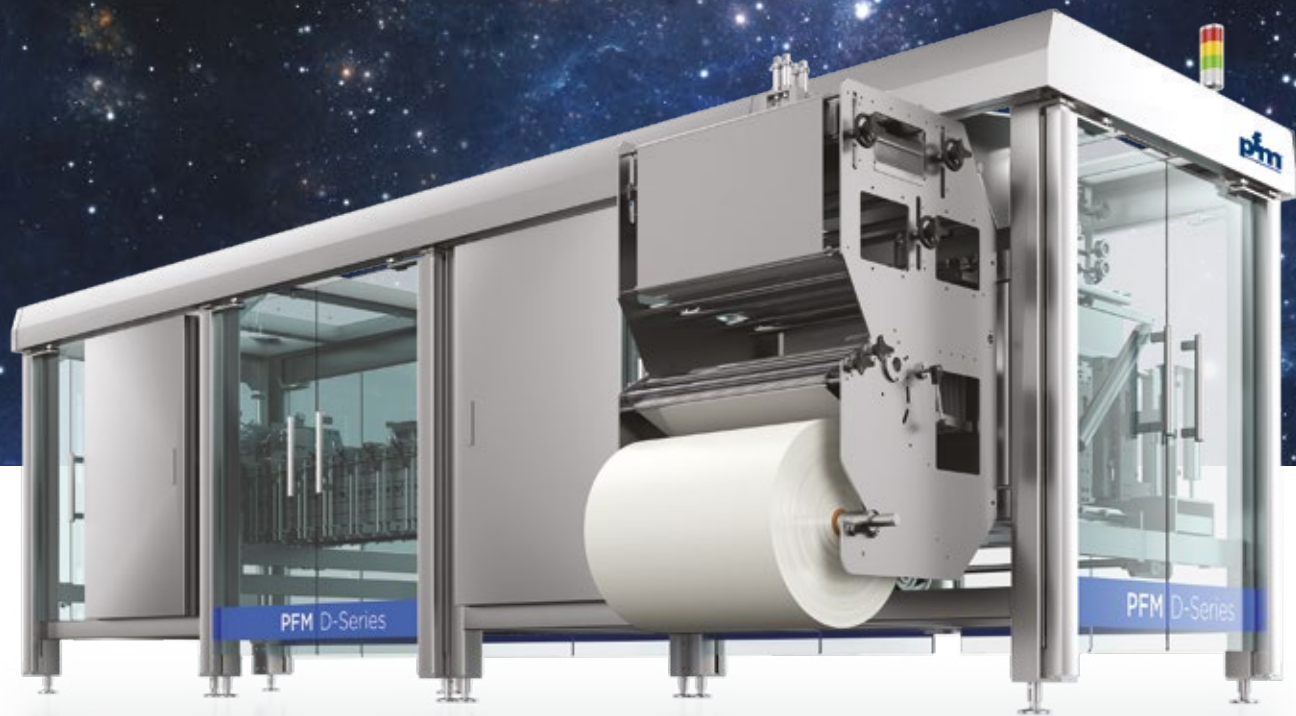


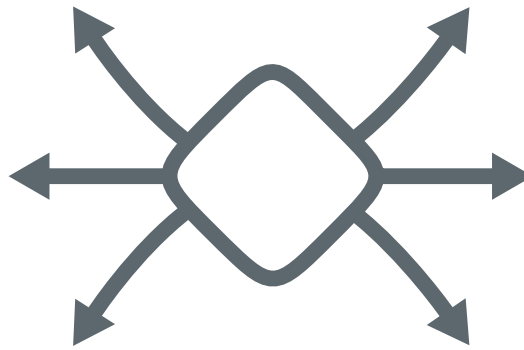


Compact

PFM D-Series has a 90° layout. The film unwinding calender, the reel-holding shaft, the compensating device, the printer adjustment system and the die-board units for cutting the bottom of the package are located at the back of the machine.

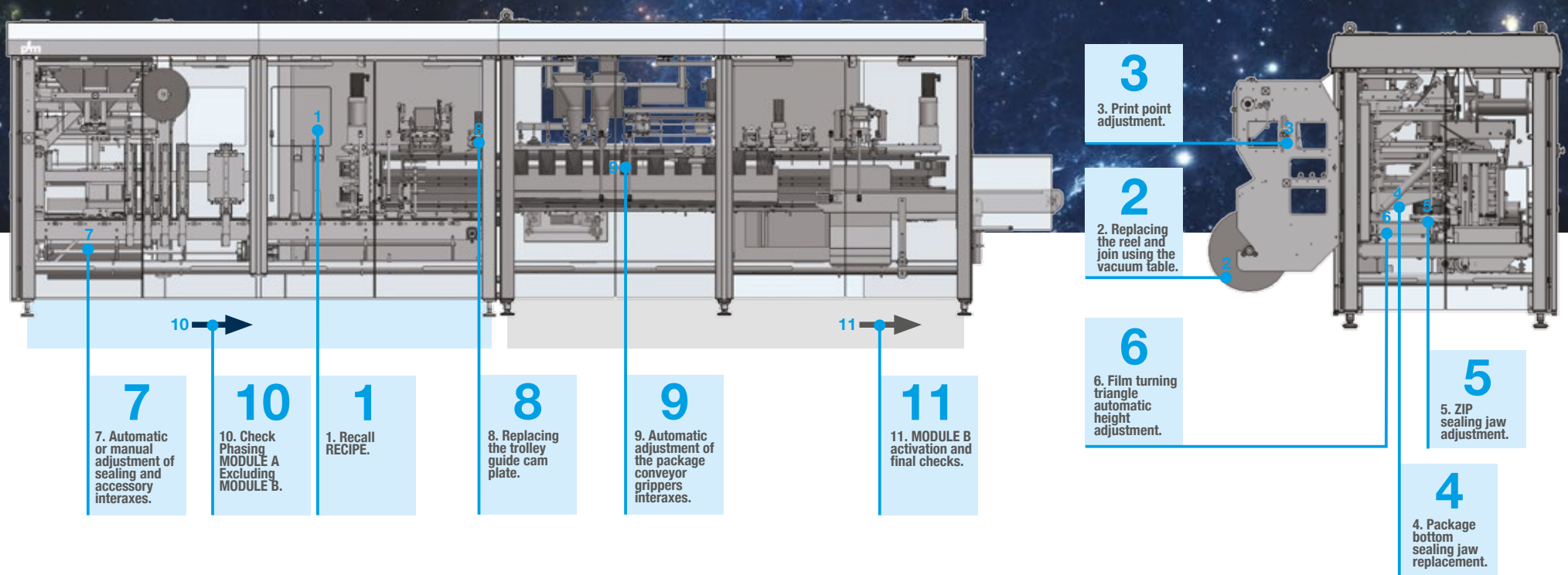
This arrangement significantly reduces the overall machine length.



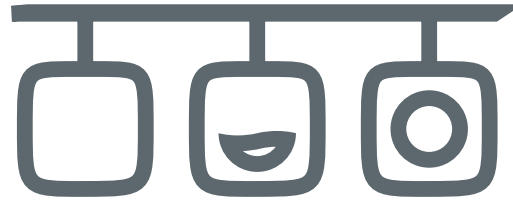


Flexible: fast change format

Format change operations can be easily and quickly carried out thanks to the electronic control system fitted on the machine. The touch-screen allows adjusting the distance between centres of two sealing units, according to the recipe data, along with a series of other parameters that determine the final size of the pouch.



Format Change Procedure



Safe

The exclusive servo-assisted system fitted on PFM D-Series, called the Universal All-in-One Conveyor, ensures that the pouch is held by two clamps all along the packaging path, from the opening station to the filling, gas injection and sealing ones, as well as during the application of any accessory, until it reaches the outfeed conveyor.

This system offers two main advantages: the first one is a dramatic reduction of format change times and the second is the cancellation of the probability of human error, which would cause a machine stop.



PFM D-Series: **What**

Just what you need.



Powd

POWDER PRODUCTS

Foods Baby foods
Freeze-dried drinks Supplements
Spices Cocoa Coffee
Milk Sugar Salt Desserts Raising agents
Flours Instant food
Drink formulations
Ice cream
Chemicals Medicines
Insecticides

Gran

GRANULAR PRODUCTS

Sweets Lozenges Toffee Dried fruit
Frozen Vegetables Frozen Seafood
Grated Cheese Cheese in cubes
Cheese strips
Mozzarella and Mini Mozzarella
Mini Salamis Peanuts Pulses
Cereals Muesli Snacks Pasta
Rice Ready-cooked Foods Pickles
Vegetables Technical Products
Pet Food Toys Screws

Liqd

LIQUID PRODUCTS

Fruit juices Fruit nectars
Soft drinks
Herbal Teas Hand and body lotion
Ready to use Broth Smoothies
Oil Tea Ready-made meals
Fruit and vegetables mixes
Energy drinks
Laundry soap Fabric softener
Detergents

Dens

DENSE PRODUCTS

Fruit puree Creams
Cosmetics Sauces
Mayonnaise Mustard
Nutritional products
Soups Ready-made meals
Liquid spices
Dairy products Processed cheese
Honey Ketchup Glue
Fruit purée Yogurt
Detergents Liquid soap
Toilet cleaner Pet food

Packaging Constellation

A line that offers countless solutions: our technology guarantees extreme flexibility to the service of an ever evolving product.



Flat



Gusseted



Shaped



with Straw



Shaped Seal



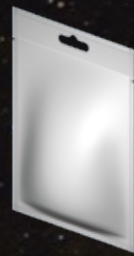
Pocket Bag Style
with adhesive strip



with Zip



Stand-Up



with Eurohole



with Cap



with Cap and Shaped

Pouches Examples

5 good reasons to choose POUCH and go beyond packaging.

1. It is suitable for INDIVIDUAL PORTIONS: dramatic reduction in waste.
2. It is RE-CLOSABLE.
3. It is LIGHT: for example, when 0.2 l glass bottles are transported on wheels,
52.3% of the load is dedicated to the packaging; the same product packed in a pouch reduces such load to 6%.
4. It INFORMS the consumer and clads the product.
5. It OPTIMIZES displays in large supermarkets as it is in itself a DISPLAY.



PFM D-Series: **How**

The 10 Best Features: a Powerful Combination.

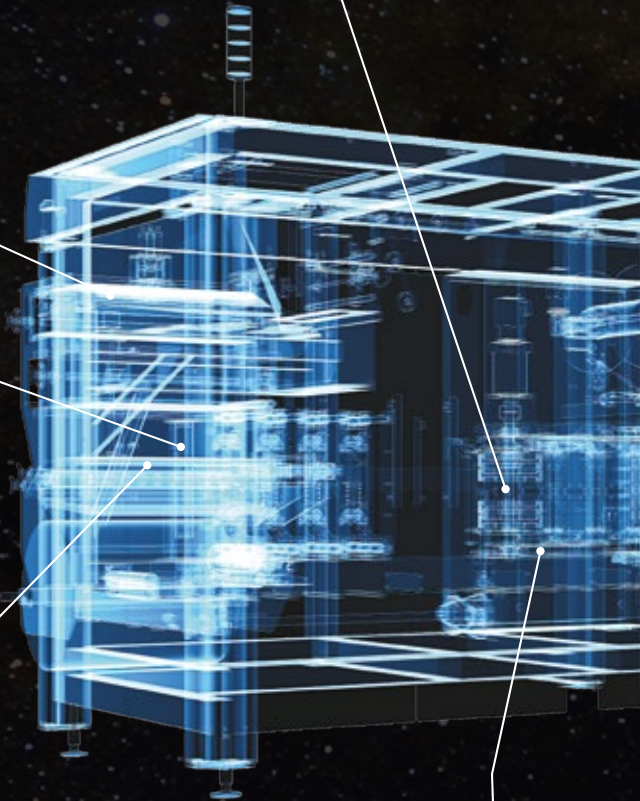
2
FILM STRETCHING:
CONTINUOUS AND
ELECTRONIC CONTROL

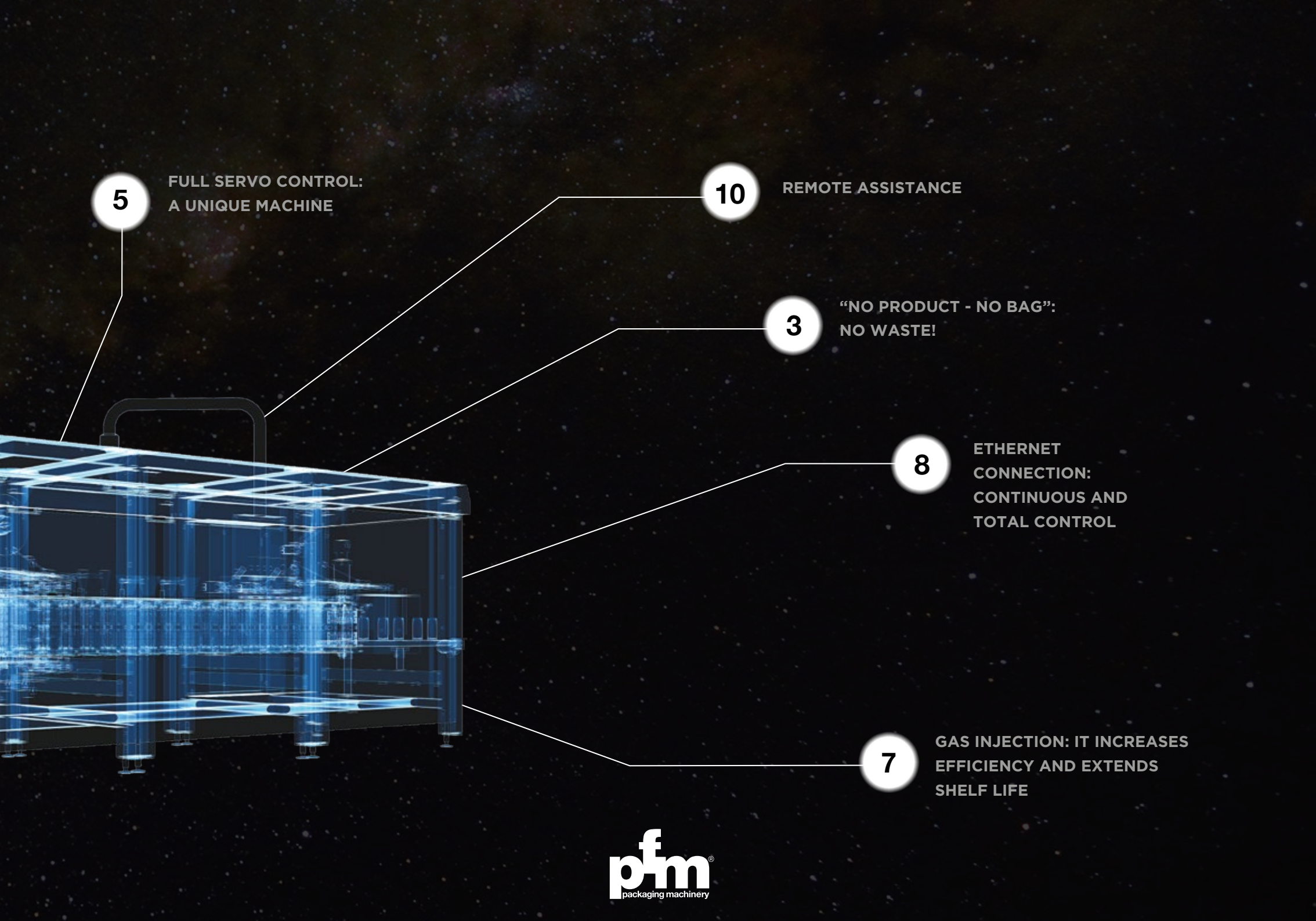
1
FILM CENTRING:
PERFECT POUCHES
EVERY TIME!

4
SAFE TRANSFER:
THE POUCH IS
SECURELY
GRASPED

9
FILM UNWIND:
SMART OPERATOR

6
AUTOMATIC
FORMAT
CHANGE





5

**FULL SERVO CONTROL:
A UNIQUE MACHINE**

10

REMOTE ASSISTANCE

3

**“NO PRODUCT - NO BAG”:
NO WASTE!**

8

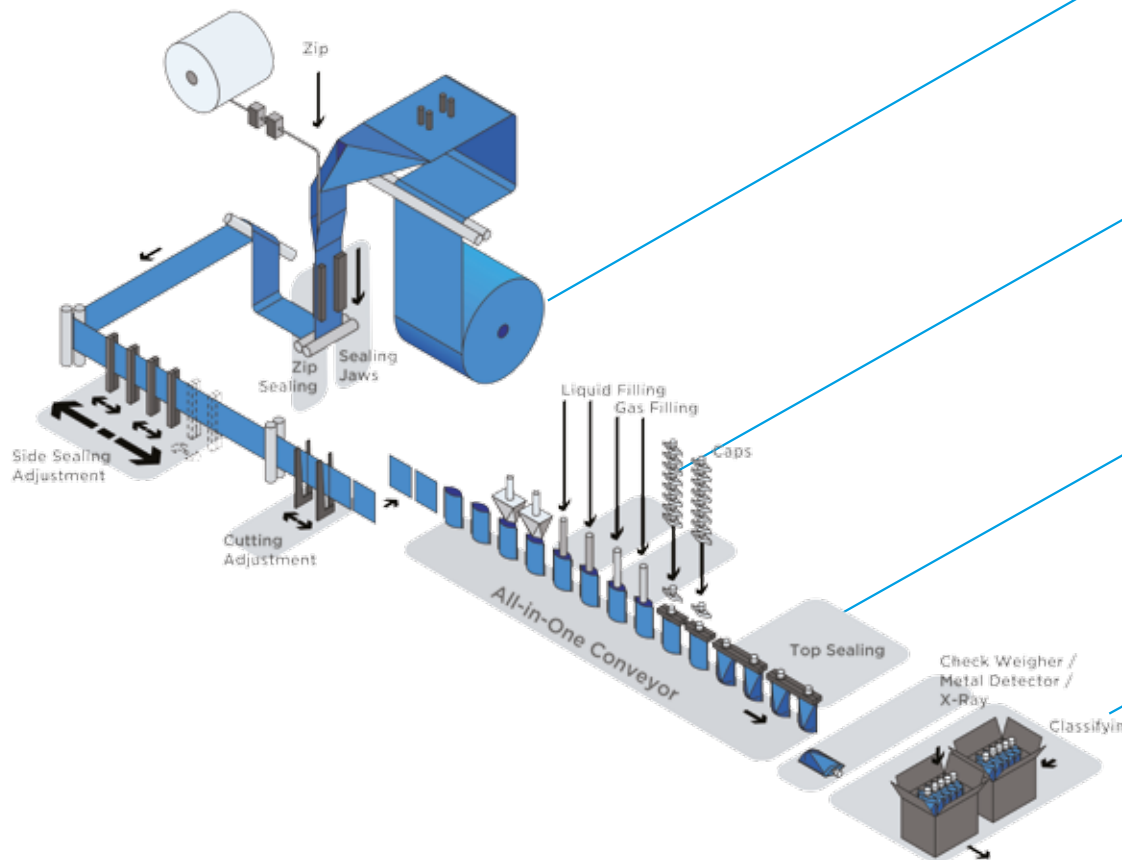
**ETHERNET
CONNECTION:
CONTINUOUS AND
TOTAL CONTROL**

7

**GAS INJECTION: IT INCREASES
EFFICIENCY AND EXTENDS
SHELF LIFE**

Working Diagram

Modular Functioning, Efficiency, Easy Control.



Forming

- Implements the packing and includes any accessories needed.



Filling

- Includes the “All-in-One” conveyor belt and the devices necessary for filling packages and for gas flushing when required.



Sealing

- Includes the final sealing units and prepares packaging for any necessary end-of-line operations.



Classifying

- End-of line: weight checking, X-rays, metal-detector, secondary packaging in multi-packs.

Technological **Innovations**

Clear ideas, in everything we do.



Full Servo
Control



Continuous
Package Transfer
System



Automatic Format
Change

Patent
Pending

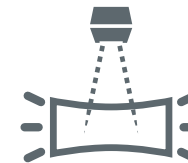


Tracking
Gas Injection System

Patent
Pending



Remote
On Line Support



No-Stretching
Film Pulling Unit

Patent
Pending



Full Servo Control

Electronic control of every function.

PFM D-Series is completely servo-assisted, which affords some natural advantages such as a perfect and micrometric check on all movements of the package as well as a constant monitoring of the pressure of all sealing units.

PFM D-Series operates through 18-20 brushless axes aiding greater productivity, speed of format changes, precise control of packaging at any given time of the productive cycle.

The software best exploits the feedback functions from the drives to intelligently manage the alarms and safety.

Connectivity between Ethernet devices IP 10/100 Mb. Interface through Touch Screen control panel (industrial PC).

Remote on-line support via web (PFM Ubiquity software) with web-cam for monitoring individual devices.

Continuous Package Transfer System

PFM D-Series All-in-One Conveyor.

The exclusive PFM D-Series Universal All-in-One Conveyor system envisages the package always being firmly held during the filling and sealing stages plus the inclusion of any accessories, through to the exit conveyor. Therefore, there are no systems taking up that package again. Universal All-in-One Conveyor adapts automatically to changes in the

package widths. Advantages are considerable both in terms of the finished package's perfect appearance and the operative simplicity in format changes.



D-320
Horizontal Form Fill Seal Machine



pfm
packaging machinery

made in Italy



Mozzarella

TEST
PFM

12 2015

200 g

Mozzarella

Mozzarella

Mozzarella

Mozzarella

Mozzarella

PATENTED

Tracking Gas Injection System

Extraordinary reduction in gas consumption with a minimal fixed oxygen residue. Because we have up to 2 seconds to inject the gas.

D-SERIES does not require any gas pre-wash or gas injection during the filling phase.

After filling the product, a two-nozzle system lowers and closes the upper section of the pouch; after that some air is sucked out and the gas is blown in. Air suction and gas blowing operations are carried out while the pouch is being transferred from one station to the other: this exclusive system leaves more time for gas injection.

In fact, the tracking system patented by PFM guarantees up to 2 seconds for sucking and blowing the gas.

Performance is exceptional: with an output of 120 pouches per minute, each containing 150 g of julienne-cut cheese, we obtained a fixed oxygen residue below 1% and consumed 350 *litres* of gas.

PATENTED

Automatic Format Change

We drastically reduce the time taken to change the format thanks to the automatic device that sets the distance between the centres of the sealing units.

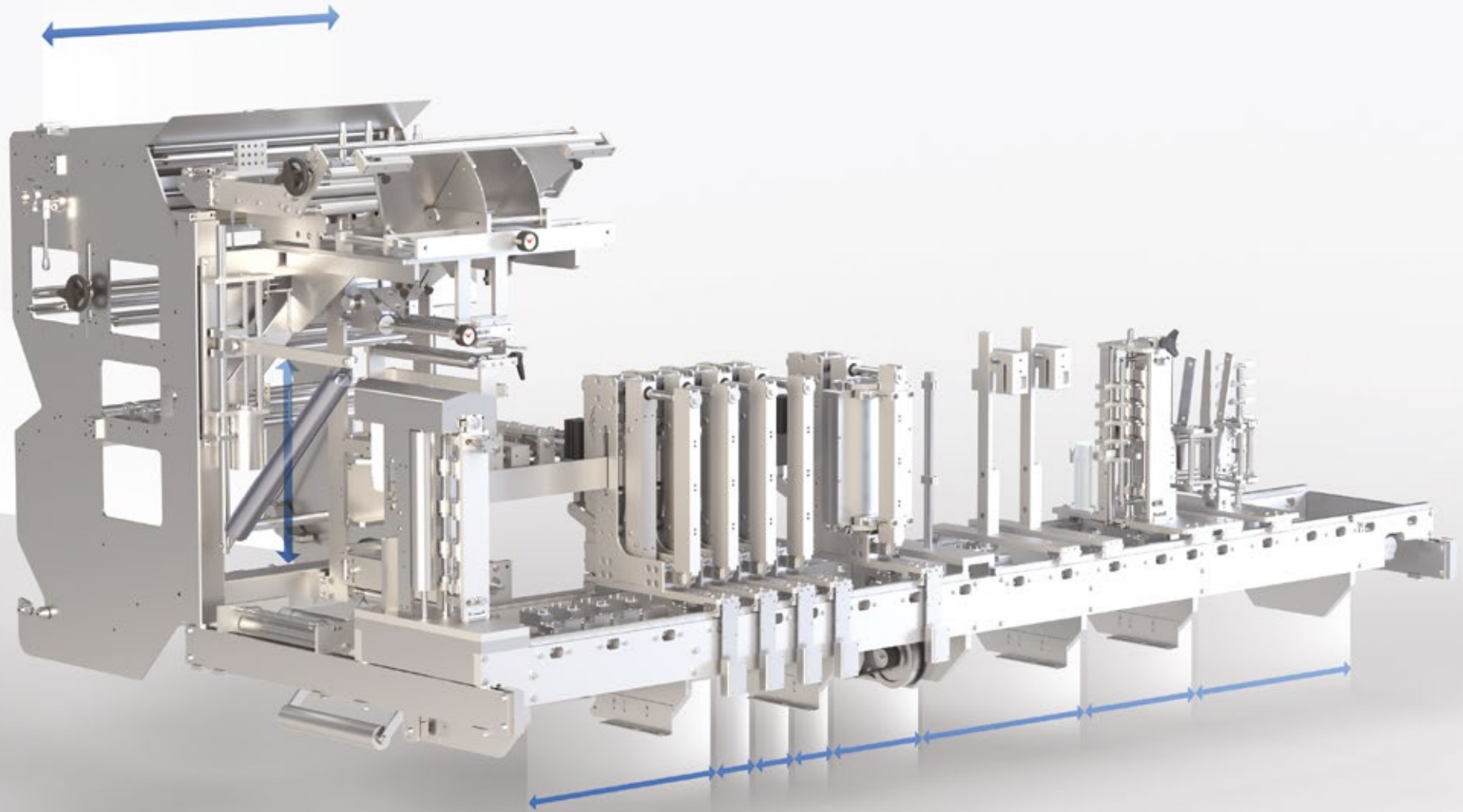
The SEALING UNITS are fitted on guides that can be used to adjust the width between sealing units. This is an automatic function, thanks to a device that receives each sealing unit and positions it according to the data in the recipe.

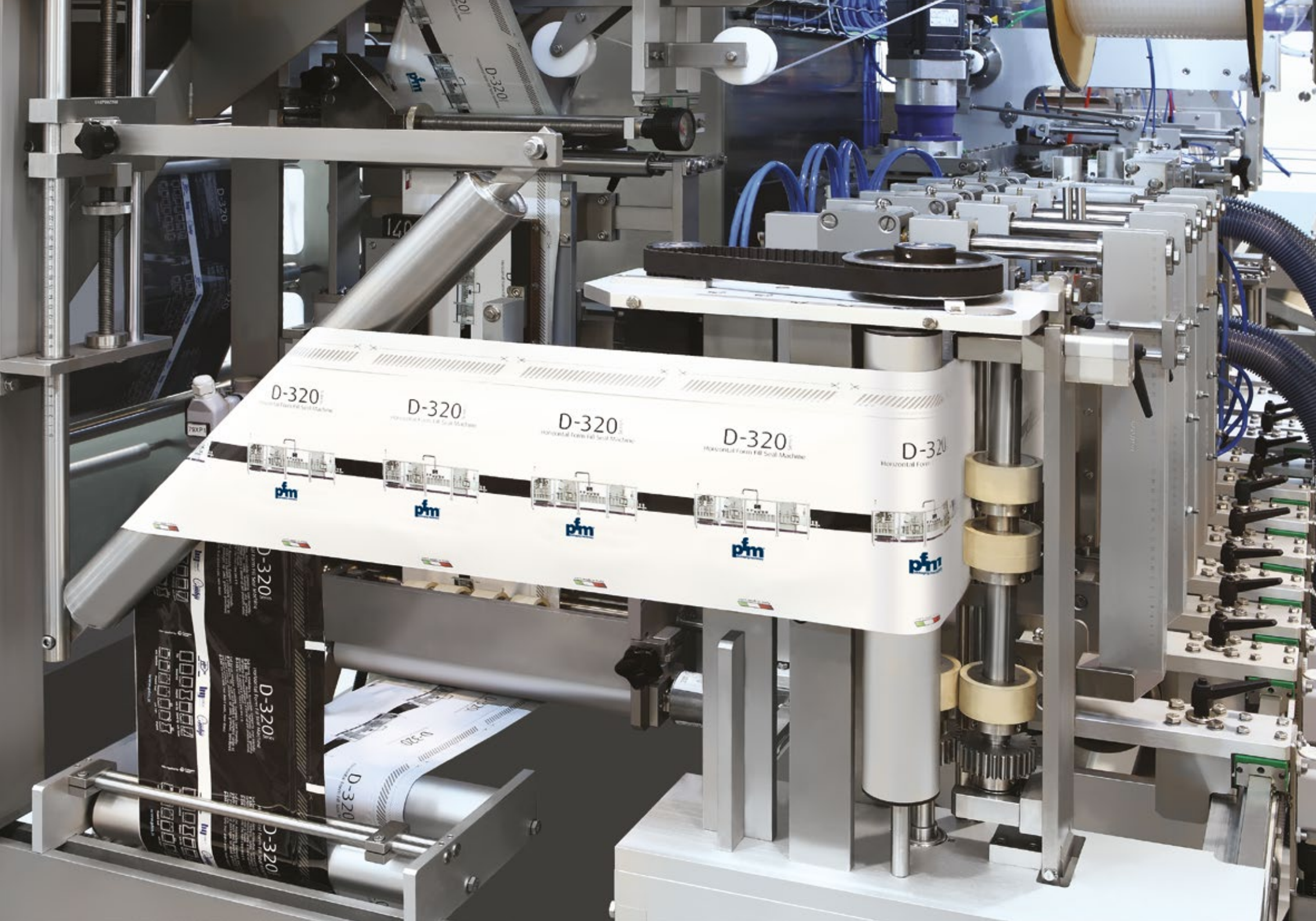
You can set the pouch width from the touch-screen panel, and the automatic device sets the distance between the centres of the sealing

units, according to the data in the recipe.

The electronic setting is immediate and only a few operations need to be done at this point.

These operations only require a few minutes!





D-320
Horizontal Form Fill Seal Machine

D-320
Horizontal Form Fill Seal Machine

D-320
Horizontal Form Fill Seal Machine

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Horizontal Form Fill Seal Machine

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D-320
Horizontal Form Fill Seal Machine

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Horizontal Form Fill Seal Machine

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Horizontal Form Fill Seal Machine

D-320
Horizontal Form Fill Seal Machine

D-320
Horizontal Form Fill Seal Machine

PATENTED

Continuous and **Automatic Stretch Control**

The machine automatically controls and corrects the film stretch thus eliminating any need for operator intervention and mistakes in pouch formation.

With D-SERIES, stretching is automatically and continuously checked and corrected, which means that any problems related to temperature and humidity changes that cause the film to stretch are solved.

The two pulling units are controlled using two photocells that continuously detect the correct positioning of the film and measure its stretching. As soon as any stretching is detected, the two units will pull in a different

way so as to compensate and correct the mistake.

Continuous and automatic control guarantees perfect pouches, with a cut that is perfectly centred to the print. This is of great help to the operator, who no longer needs to make manual adjustments.

Thanks to this system, the machine offers top operational safety: it always responds in the same manner, regardless of environmental conditions.

PFM Ubiquity

Remote On-Line Support

PFM Ubiquity: we are always with you.

By means of the PFM Ubiquity System, the machine operates on-line allowing the PFM technicians to foresee and solve possible inefficiencies, suggesting preventive maintenance interventions to clients and providing operators with on-line instructions.

PFM Ubiquity represents a new way of supporting the supplier/client relationship: it allows reduction in lines maintenance, training and supervision costs.



Active recipe:

Recipe_1

Ver. Alfa

Active alarms:

Speed [BPM]

Machine status

OFF



Level 1

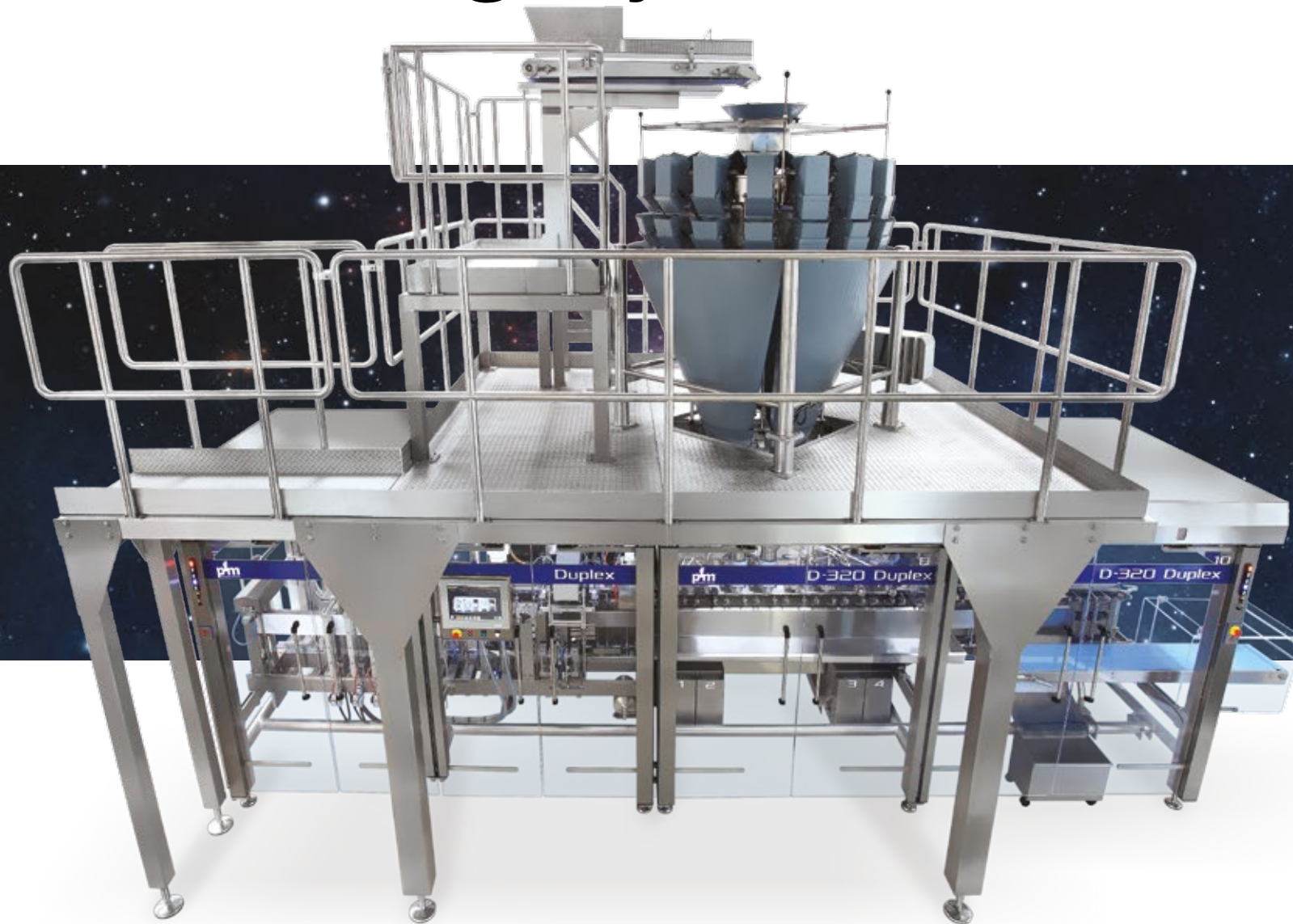
Logout



Home

18/09/2012 17.44.12

Feeding Systems





Dosage units for Fluids

Precision, reliability and hygienization: PFM offers a complete range of fluid dosing devices. The ideal dosing system is agreed with the client each time according to the specific product typology, required packaging and production speed.



Dosing Screw Feeders

PFM offers a complete series of volumetric dosing systems, Series AF-5000, for products in powder form (sugar, salt, beverages in powder forms, flour, cocoa, coffee, etc.). Maximum dosing precision is guaranteed by the screw's constructive accuracy, the perfect finish of surfaces coming into contact with the product and the exactness and consistency in the shifting angles and in the screw rotation movements.



Multi-head Weighers

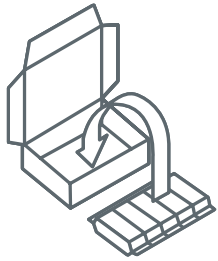
Almost thirty years experience and intensive research have led MBP, a company of the PFM Group, to manufacture a series of weighing units, 100% made in Italy (C1, C2, C3, C4, C5) technologically advanced and providing solutions for the most demanding clients.

Secondary Packaging Ready

From the primary packaging to the cardboard strapping, PFM proposes integrated solutions that include necessary metal detectors, weight control and X-Ray systems.

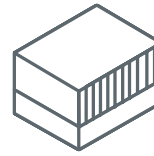
The integration encompasses the functional, hardware and software aspects as well as the pre and post-sales service. In detail:

- The functional aspect takes advantage of the mechanical integration through which the packages are never released but follow a logical consequential path, from the D-Series conveyor to the end-of-line take-up system.
- The hardware integration simplifies and rationalises the devices dedicated to the electronic control.
- The software integration allows the operator to follow a univocal programming logic and to carry out the recording and storage of recipes. Furthermore, it allows the line's integral remote diagnostic through the Ubiquity system.
- The pre and post-sales integrated service system simplifies the client-supplier relationship: the client interfaces with a single reference person taking care of the designing stage, and following all stages making up the purchase definition, installation, testing and postsales assistance.



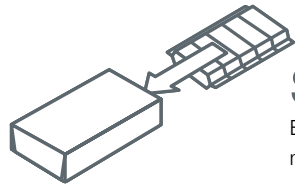
Top Loading

Robotic loading unit, designed to handle a wide variety of bags and load them into RSC cases, boxes, trays etc. 2-4 AXIS, Delta and "Y" shape robots are integrated into complete packaging lines.



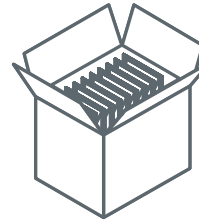
Wrap-Around and Display-Box

Electronic case packers capable of packing a variety of products into one-piece wrap-around or two piece display cases for retail-ready packaging solutions.



Side Loading

Electronic intermittent-continuous motion cartoning machines at medium/high speed range.

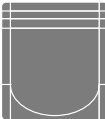
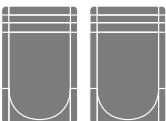
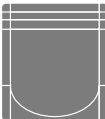
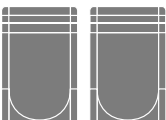
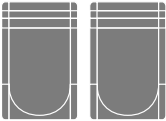


Case Packing

Horizontal RSC case packing machines.



Technical Data

Model	Version	Package dimensions (base x height)		Speed (packages/min)
		Max (mm)	Min (mm)	
D-240	S 	280 x 300	90 x 100	80
	D 	120 x 300	90 x 100	160
D-320	S 	360 x 300	90 x 100	70
	D 	160 x 300	90 x 100	140
D-400	D 	200 x 300	90 x 100	120

PFM reserve the right to make modifications without prior notice.

Main Optionals

- Caps applicator.
- Drinking straws applicator.
- Follow-up system for introducing inert gas.
- Follow-up system for introducing fluids and semi-dense substances.
- Shaped packaging dies and/or handle, euro slot.
- Ultrasound sealing system.
- Stainless steel version.
- AISI 316 super stainless steel version.
- Automatic reel change.
- Printing equipment.
- Labelling machines.
- Weight control, metal detector, X-Ray.
- End-of-line systems.



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ITALIAN HEADQUARTERS

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www.youtube.com/user/PFMpackaging



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