

## **Packaging Machinery**



**Shamal**

# Shamal



Examples of products

**SHAMAL is a horizontal flow pack type packaging machine with electronic bottom reel that produces closed packs with three seals originating from a flat foil heat-sealing wrapping material reel. Shamal has also been designed for M.A.P. (Modified Atmosphere Packaging).**

**The main characteristics that make Shamal the focal point worldwide in the field of packaging, can be summed up in the following: air-tight sealing system, aesthetically pleasant packs, guaranteed hygiene, high flexibility and great productive capacity.**

**High flexibility:** The SERVO version of the Shamal packaging machine, features the LVA option (automatic adjustment of packaging length according to product length) with fixed pitch and centred printing in case of products with constant length and film with centred print. Furthermore, Shamal makes it possible to package products with a height of up to 200 mm and width up to 360 mm thanks to the E.R.S. sealing system (patented by PFM).

**Aesthetically perfect packs:** thanks to the adjustable forming box and the longitudinal sealing system made up of 3 sets of inclinable wheels for adjusting the wrapping tension around the products and to the E.R.S. crosswise sealing system with parallel closing and separate motorisation, Shamal produces perfect wrinkle-free packs, which are properly tensioned and proportioned with respect to the product so as to originate parallel and tight seals.

**Guaranteed Hygiene:** a special frame made of AISI 304 stainless steel along with the "cantilevered" type construction concept where the mechanical and electrical components are housed at the rear of the machine in separate and protected areas, while the sealing units and conveyor surfaces are housed at the front with the quick-release belt, permit fast and easy cleaning of the machine.

**High wrapping speed:** up to 70 packs/min in full safety, air-tight seals, aesthetically perfect packs, optimised gas recycling inside the film tube (MAP optional).



## Main standard accessories:

The machine is equipped with the following devices:

- 2 m long infeed conveyor covered with anti-sliding belt and with a metallic joint.  
Fast assembly/disassembly and cleaning.
- Longitudinal sealing unit with adjustable height.
- Sealing system made up of 3 individual wheel units, which are separate, protected and inclinable lengthwise. The first unit draws the material, the second unit carries out the sealing and the third unit the rim folding.
- E.R.S. crossways sealing unit.
- Automatic centring reel holding unit shafts with an electronically controlled multiple belt unwinder.
- Adjustable forming box.
- Individual sealing crimper and sealing wheel temperature controls.



COMPANY  
WITH QUALITY SYSTEM  
CERTIFIED BY DNV  
= ISO 9001/2000 =

PFM S.p.A. (headquarters)  
via Pasubio, 49  
36036 Torrelvicino (VI) Italy

# Shamo



### Servo Model

- A new PFM User Friendly and intuitive programming system, which uses a touch screen panel for easily setting the machine functions with up to 20 different programmes.
- The format change is effected automatically, in particular with regards to:
  - Pack length setting
  - Slow-down setting
  - Product phasing
  - Print centring setting
  - Printing position setting of the printer

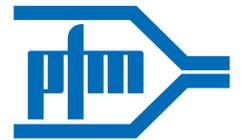


## Long Dwell sealing system: Long Dwell E.R.S.

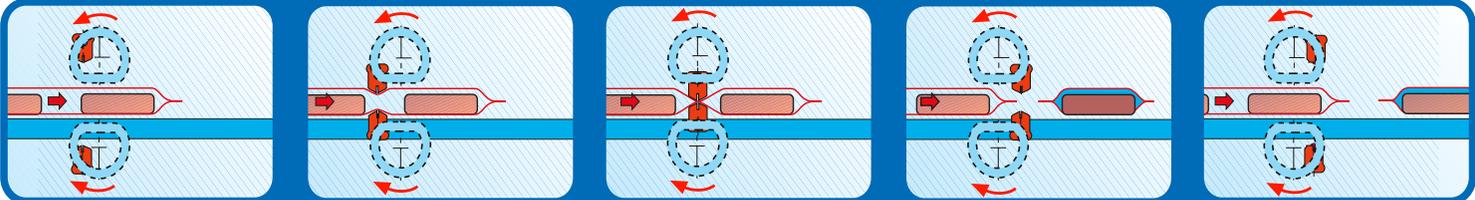
Temperature, Pressure and Time are the three principle factors that when optimized, using appropriate wrapping material, enables high / Hermetic sealing to be achieved.

The PFM E.R.S. sealing systems with temperatures equal to those of traditional rotary systems maximize pressure and lengthen sealing times. They have a rotating, mechanical, and constant motion which is particularly fluid in rectilinear sections and an automatically ejecting cutting knife.

The longitudinal and crossways sealing units guarantee completely hermetic sealing, while a close study of the distances between the sealing units, the operational kinematics and the speed at which the products are moved, assure an excellent replacement of the modified atmosphere of sealed film inside the box, as well as an accurate control of residue oxygen.



**Packaging Machinery**



PFM patented Long Dwell sealing system: 1 jaw per shaft, high operation flexibility with a maximum speed of 80 cycles/min.

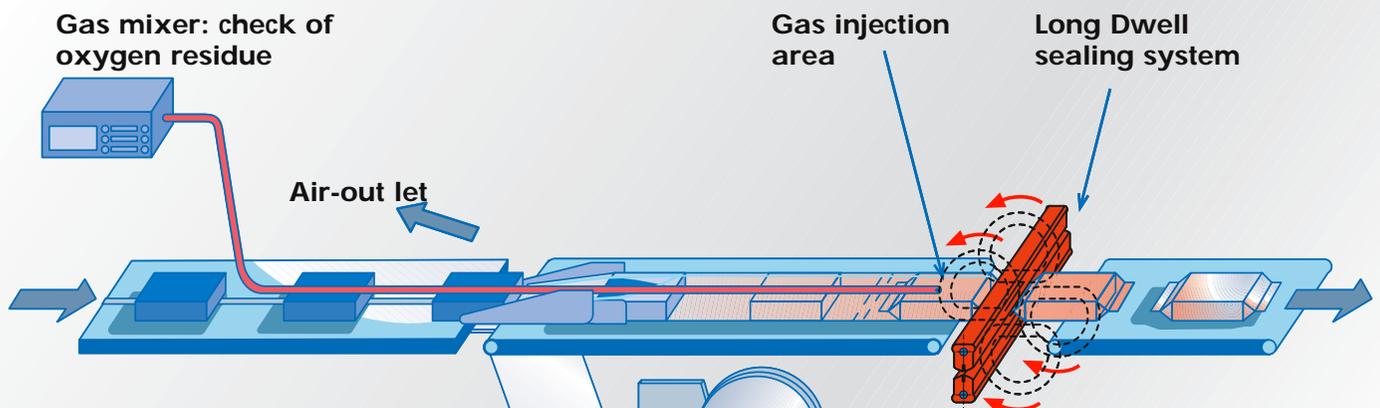


Diagram of productive cycle performed by Shamal with modified atmosphere



Examples of products



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## Technical Data:

<b>Product length:</b>	min 150 mm, max LVA
<b>Product width:</b>	min 10 mm, max 350 mm
<b>Product height:</b>	max 200 mm
<b>Selaing jaw width:</b>	400 mm
<b>Reel strip:</b>	max 700 mm
<b>Reel diameter:</b>	350 mm
<b>Internal reel diameter:</b>	70 mm
<b>Wrapping material:</b>	BOPP laminated or bonded also with gas barrier
<b>Output:</b>	Up to 70 mechanicals cycles per minute
<b>Sealing method:</b>	ERS
<b>Construction:</b>	Painted steel or AISI 304
<b>Structure:</b>	Cleanable cantilevered type
<b>Electrical consumption:</b>	7 Kw
<b>Weight:</b>	1.000 Kg
<b>Power supply:</b>	380 volt three-phase + N + E

The technical specifications stated are merely indicative and may vary according to the type and dimensions of the product, output required and type of wrapping material used.  
Data should always be confirmed by PFM's technical department.  
The final technical specifications calculated according to the above mentioned variables are only given in the official offer.  
PFM reserves the right to make modifications without prior notice.

## PFM Group

Network of Packaging Solutions



PFM S.p.A.  
PACKAGING MACHINERY

ITALIAN HEADQUARTERS  
Via Pasubio, 49  
36036 TORREBELVICINO  
(VI) ITALY

Ph: (+39) 0445. 570.110  
Fax: (+39) 0445. 570.175

www.pfm.it  
pfm@pfm.it



PFM  
PACKAGING MACHINERY LTD

PFM House, 2  
Pilgrim Way, Stanningley  
LEEDS - LS28 6LU  
UNITED KINGDOM

Ph: +44 (0) 113. 23.93.401  
Fax: +44 (0) 113.23.93.402

www.pfmuk.com  
pfm@pfm-ltd.co.uk



PFM  
PACKAGING MACHINERY  
CORP. USA & CANADA

1271, Ringwell Ave.  
NEWMARKET  
ONTARIO CANADA L3Y  
7V1.

Ph: (+1) 905. 836.6709  
Fax: (+1) 905. 836.7763

www.pfmusa.com  
info@pfmusa.com



PFM  
PACKAGING MACHINERY  
GERMANY

Gewerbestraße, 31  
D-21279 HOLLENSTED

Ph: (+49) 4165. 221.9  
Fax: (+49) 4165. 221.9

www.pfmgermany.de  
info@pfm-bgpack.de



EMRICH INDUSTRIES  
PACKAGING MACHINERY  
AUSTRALASIA

FREECALL: 1800-801243  
Ph: (+49) 4165. 221.9  
Fax: (+49) 4165. 221.9

www.emrich.com.au  
sales@emrich.com.au



BG PACK S.p.A.

Via C. A. Dalla Chiesa, 13  
24048 TREVIOLO (BG)  
ITALY

Ph: (+39) 035. 20.31.22  
Fax: (+39) 035. 20.31.25

bgpack@bgpack.it



MBP S.r.l.  
WEIGHERS AND BAG  
MAKERS

PFM PACKAGING GROUP  
Via Toscanini, 48/B  
46043 CASTIGLIONE  
DELLE STIVIERE (MN)  
ITALY

Ph: (+39) 0376. 638.479  
Fax: (+39) 0376. 670.727

www.mbp.it  
info@mbp.it



SPS S.p.A.  
ITALIANA PACK SYSTEMS  
PFM PACKAGING GROUP

Via Salvemini, 23  
28012 CRESSA (NO)  
ITALY

Ph: (+39) 0322. 861.100  
Fax: (+39) 0322. 861.122

www.spsspack.com  
info@spsspack.com