

Packaging Machinery



**Assembly for automated lid
orientation and application**

orientation and lid application

Assembly for automated lid orientation and application

The system has been designed to convey lids to a Robot IRB 340, which then applies them onto flow-packs for fast and automated packaging.

The positioning of the lid 'off-line' allows a better result, reduces the number of stops, as possible short stops in the packaging line are absorbed through storage.



The assembly is so composed:

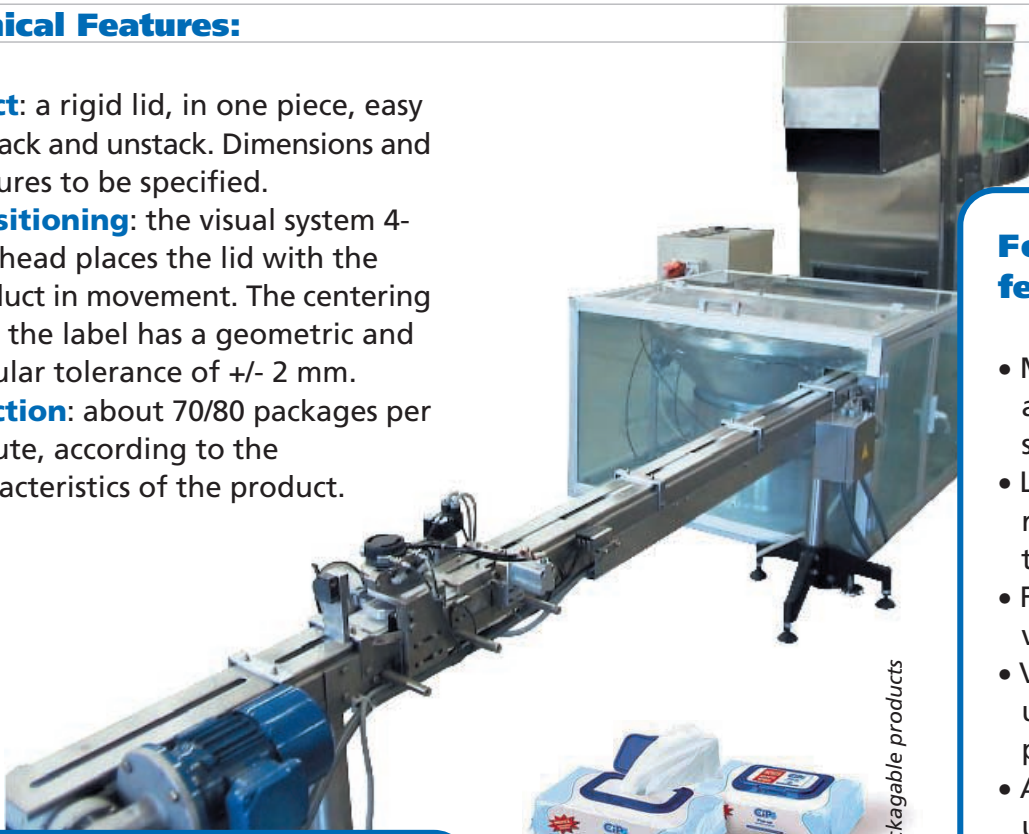
- A conveyor receives and feeds the packages arriving from an existing line (conveyor structure in anticorrosional and stainless steel).
- Another conveyor placed at 90° receives the flow-packs and conveys them towards the robot.
- A lid feeding unit.
- The visual system, 4-axis robot IRB 340 follows the packs and is equipped with a suction-cup head to pick up the lids and apply them onto the packages; its visual system allows a good precision when positioning the lids.
- A Nordson unit applies hot-melt glue by means of a special pistol that injects the glue from the bottom.
- A PC with dedicated software controls the whole system and constitutes a user friendly man-machine interface.

Technical Features:

Product: a rigid lid, in one piece, easy to stack and unstack. Dimensions and features to be specified.

Lid Positioning: the visual system 4-axis head places the lid with the product in movement. The centering over the label has a geometric and angular tolerance of +/- 2 mm.

Production: about 70/80 packages per minute, according to the characteristics of the product.



Examples of packagable products

Manufacturing features of the pick-up unit

- Industrial robot IRB 340, 4 axis, complete with control unit.
- Programmation portable unit, self-teaching system.
- Floppy disk unit to save the programmes.
- 16-input 16-output digital card to interface peripherals.
- 'Conveyor tracking' card, for product tracking on the conveyor.
- Ethernet communication card, for data transfer from the visual system to the robot control unit.
- Sucking-cup head, with vacuum created by a Venturi complete with pneumatic system.
- Visual system RTS mod. 'Vip System for IRB 340'.

Working cycle

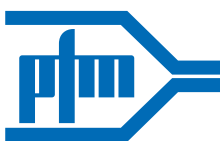
The packages arrive on the in-feed conveyor at the correct distance between each other.

The lids are fed at 90°.

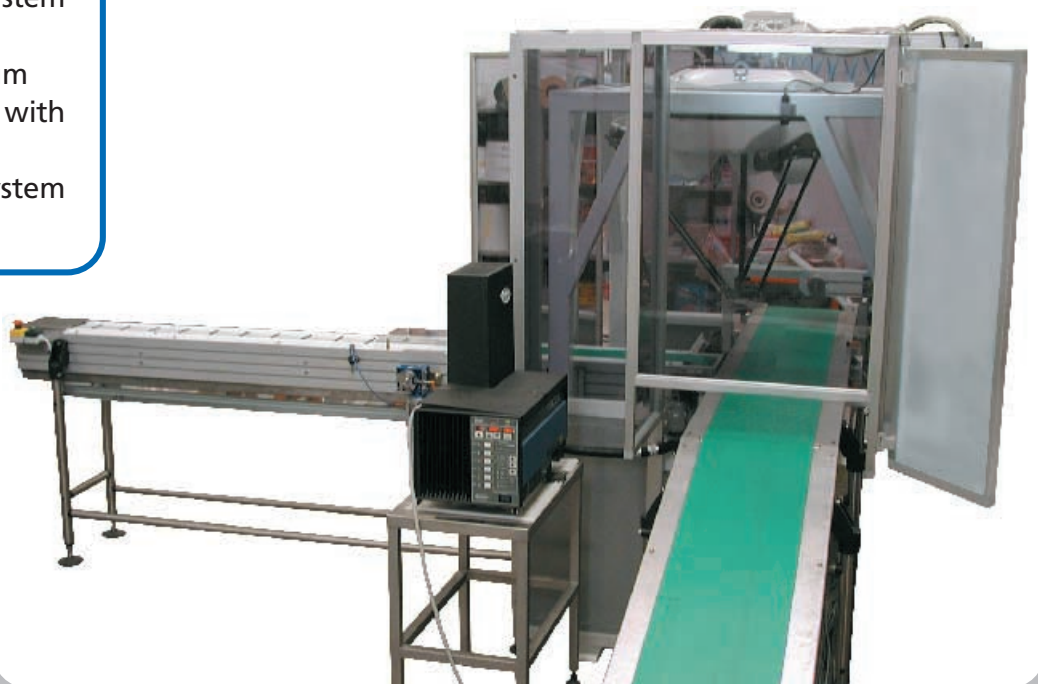
visual sucking-cup head locates and collects the lid, rotates it over the glueing unit, then it follows the flow-pack, identifies the label and places the lid with a slight pressure.

Features of the lid feeding

- Main structure in anticorrosional and painted steel.
- Lid feeding hopper (lids in random order) fitted on the elevator.
- Feeding elevator to the vibration assembly.
- Vibration assembly to line-up the lids, complete with protection against noise.
- Autonomy: 7000-8000 units.
- Optional item: lid check and line-up assembly, to place the lids in the desired opening position. (Note: this device is necessary if the lid cannot be identified by the camera on the robot).



Packaging Machinery





IRB 340, FlexPicker

What is most startling about FlexPicker is the speed at which it operates.

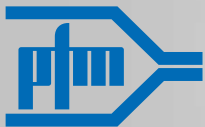
It readily handles 150 picks per minute, corresponding to a cycle time of 0.4 seconds.

What is more, the system is accurate in that it only selects perfect objects.

If, for example, a cookie, a piece of chocolate or a pill is defect the robot will ignore it.

FlexPicker is made up of a number of hardware and software components designed to help you build a complete picker application.

**Main Applications.
Sorting and collating.**

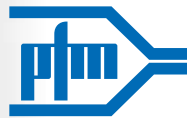


Packaging Machinery

**PFM S.p.A.
PACKAGING MACHINERY
SEDE CENTRALE ITALIA**

**Via Pasubio, 49
36036 Torrepalca (VI)
ITALY
Tel: (+39) 0445 .570.110
Fax: (+39) 0445 .570.175**

**Internet: www.pfm.it
E-mail: pfm@pfm.it**

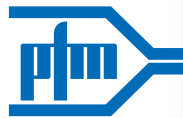


Packaging Machinery
LTD GREAT BRITAIN

**PFM
PACKAGING MACHINERY
LTD GREAT BRITAIN**

**Unit 8/9, Intercity Way
LEEDS LS13 - 4LY
Tel: (+44) 113 .23.93.401
Fax: (+44) 113 .23.93.402**

E-mail: pfm@pfmltd.co.uk



Packaging Machinery
CORP. USA & CANADA

**PFM
PACKAGING MACHINERY
CORP. USA & CANADA**

**1271, Ringwell Ave.
Newmarket
Ont. Canada L3Y 7V1.
Tel: (+1) 905 .836 .6709
Fax: (+1) 905 .836 .7763**

**Internet: www.pfmusa.com
E-mail: info@pfmusa.com**



**BG PACK s.p.a.
PFM PACKAGING GROUP**

**via C. A. Dalla Chiesa, 13
24048 Treviolo (BG) ITALY
Tel: (+39) 035 .20.31.22
Fax: (+39) 035 .20.31.25**

E-mail: bgpack@bgpack.it