



Cartoning solutions

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Zoppas Industries

Feel free to imagine. We make it happen.





Cartoning solutions

Many years of experience, continuous research and development together with a great attention to the demands of an ever evolving packaging industry, have allowed SIPA to offer extremely reliable, flexible and innovative cartoning solutions. The range of cartoning solutions is in fact one of the most comprehensive available on the market today: SIPA is one of the few vendors able to propose solutions for American-type cartons, plastic crates, trays and wrap-around cartons. It was designed to meet different levels of speed and to cover all production needs, from the simplest to the most complex packaging configurations handled with robotic solutions. These applications are definitely cross-the-board and are mainly used in the wine, beer and spirit sectors in general, but there are also many applications for mineral water, beverages, juices and edible oil in glass and PET bottles.





Jolly and Silent

Continuous movement case packers and craters/decraters

Continuous movement craters/decraters and case packers equipped with different pick-up heads depending on the specific needs of each Customer. This range of machines is designed to handle different type of containers such as bottles, jars and cans into American-type cartons, plastic crates and trays. Depending on the product, the machine can be equipped with: pneumatic membrane gripping heads, grippers, suckers, magnetic plates, vacuum heads, etc., and can handle a variable number of containers in different configurations (2x3, 4x3, etc.).

The gripping heads are mounted on a solid traversing system controlled by an inverter, which ensures a precise, harmonic and reliable movement over time. It is actuated by a gear box which transforms the continuous motion of the geared motor into reciprocating motion. The bottle feed can be orthogonal or parallel to the sliding belt of the cases / cartons, moreover the bottle channelling system also includes a shaking device that prevents jamming.

Solutions to simplify the changeover and the handling of bottles with special shapes are available both for bottle feeding and for head exchange.

The correct insertion of the bottles is guaranteed by the presence of the centring and stop systems of the cartons on the feed belt. The system is controlled by a PLC and operated via an operator interface touch screen with simple and intuitive controls.




Jolly is the automatic case packer with single or double pick-up head designed for low output lines.

Silent is the multi-head (from 2 to 8) automatic case packer designed for medium/high output lines.




Output

Jolly up to 600 cycles/hour
Silent up to 550 cycles/hour

Type of packaging

-  American-type cartons
-  Plastic crates
-  Trays

Products that can be processed

-  PET bottles
-  Glass bottles
-  Cans
-  Jars
-  Tin containers



- A) Silent: pneumatic membrane gripping heads
- B) Jolly: overall view
- C) Jolly: double vacuum head for small size bottles
- D) Jolly: adjustable pneumatic membrane gripping heads
- E) Silent: orthogonal bottle feeding
- F) Silent: carton feeding
- G) Silent: overall view



A

Robby Pack

Robotized craters/decraters and case packers

Robotized craters/decraters and case packers for handling different type of containers such as bottles, jars and cans into American-type cartons, plastic crates and trays, designed for high-speed lines or to fulfil special packaging requests.

Thanks to the use of a 4 or 6 axis robotic arm combined with the use of specific gripping heads, Robby Pack is suitable for complex handling, ideal for any size, packaging and production capacity. Flexibility, accuracy, and repeatability of movements also enable carrying out complex handling as in the case of packing horizontal, crossed, flipped bottles, with or without the insertion of partitions or interlayer pads, in addition to the vertical insertion of bottles. Depending on the product, the machine can be equipped with: pneumatic membrane gripping heads, grippers, suckers, magnetic plates, vacuum heads, etc., and can handle a variable number of containers in different configurations (2x3, 4x3, etc.).

Upon request, the equipment changeover can be fully automated, leaving the movement and positioning of the elements to the robot's arm.

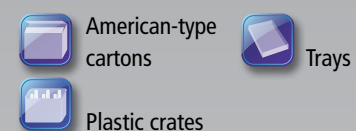
Robby Pack is a very versatile and modular system: it can be customized according to specific requirements and configured to manage multiple lines or to be easily integrated into existing lines. The solution is designed according to the production needs of the customer, in order to manage different bottle feeding solutions, to cope with a variable number of crate and carton handling and the eventual integration of accessory items (such as partition inserters, etc.). Whatever the layout of the final solution, it is however extremely compact, and is able to adapt easily to the architectural constraints and existing space in the dedicated area.

The system is controlled by a PLC and operated via an operator interface touch screen with simple and intuitive controls.

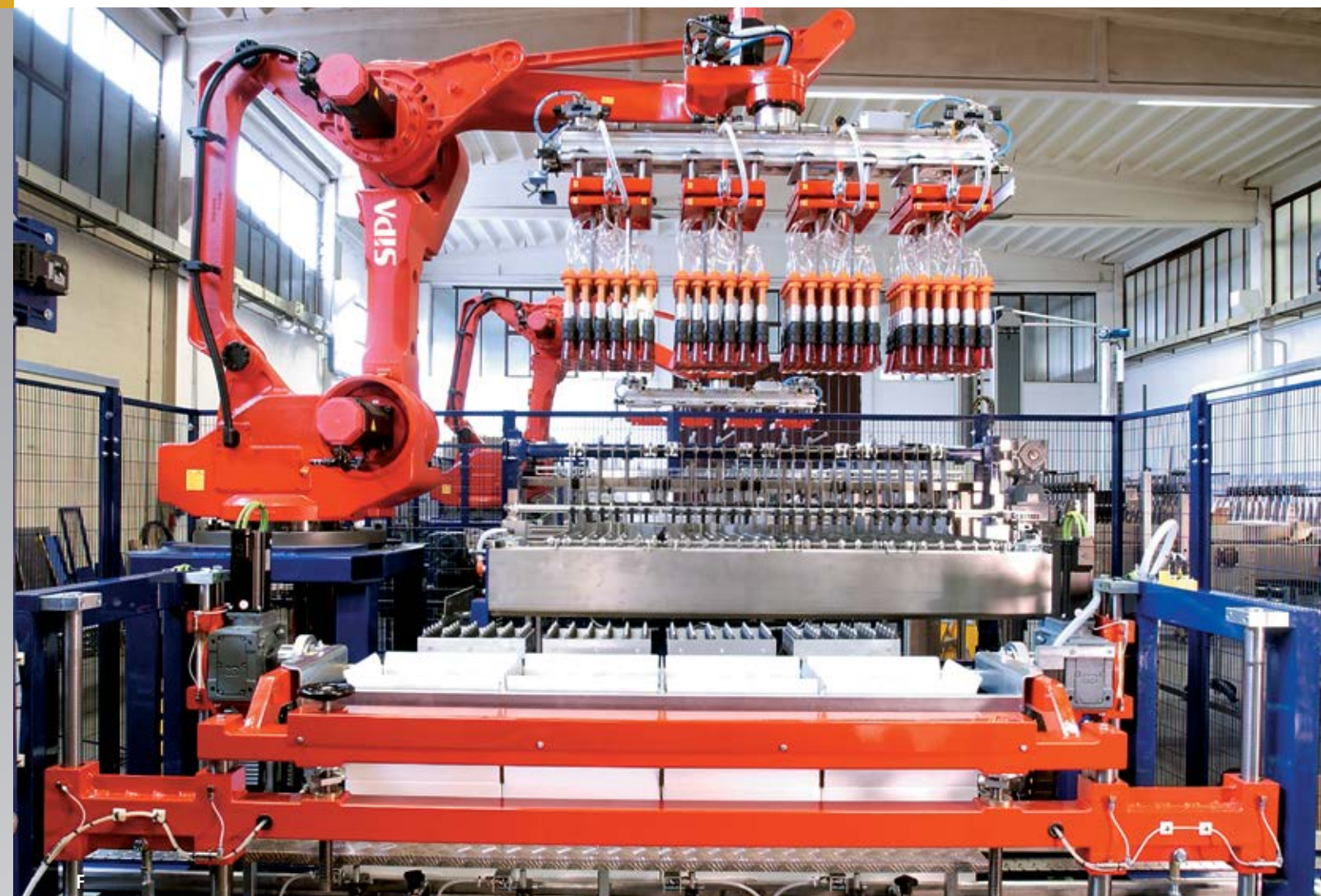
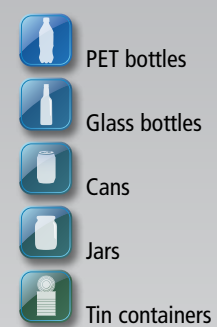
Output

Up to 550 cycles/hour
Its modular nature allows implementing plants with very different capacities: from the lowest (2,000 b/h), up to the highest multi-head configurations with double lane carton feed (above 130,000 b/h).

Type of packaging



Products that can be processed



C



D



E

- A) Sucker pick-up head for cartoning flat and crossed bottles
- B) Multiple layer gripper (pneumatic membrane gripping heads and suckers) and vertical tilt unit for cartoning flipped bottles
- C) Multiple pneumatic membrane gripping heads for double lane boxing
- D) Cartoning solution for flat bottles with interlayer pads inserting device
- E) Adjustable pneumatic membrane gripping heads
- F) High speed cartoning solution with 2 robots and bottle tilt unit



B



Uniwrap

Wrap-around case packer

The continuous movement wrap-around case packer is designed with a modular concept in order to handle a wide range of sizes and speeds. The Uniwrap is manufactured to package, with customized solutions, every type of bottle, can, jar and tin in open die cut carton through a wrap-around system.

General features

- Fast changeover which does not require the replacement of any component of the machine.
- The machines are very compact and with the best category longitudinal overall dimension.
- All movements are controlled and electronically synchronized by brushless motors.
- The moving parts and transmissions are extremely solid and lubricant-free.
- An integrated partition inserting device is available upon request.
- Readily accessible pre-cut carton magazine.
- Reliable and accurate separation and positioning system of pre-cut cartons, perfectly synchronized with the passage of the bottles.
- The bottle/pre-cut carton matching is at a constant speed in order to avoid any jamming.

- The flexibility of the machine allows handling PET bottles as well as special shapes (oval, truncated cone, etc.)
- Upper side flaps sealer with HOT MELT glue and final pressing system for a perfect closure.

Flat board pre-assembled partitions

All Uniwrap cartoning machines can be equipped, in the construction phase or subsequently, with the integrated hive partition inserting device which does not affect the compact size of the machine.

Advantages of this solution compared with corrugated cardboard partitions:

- Saving of 30% in partition purchase costs.
- Reduction of 65% of the storage volume.
- Only one feeding and control point.
- The flat cardboard is much less affected by harsh environmental conditions during the storage period.

Output

From 20 to 45 cartons/minute

Type of packaging



Wrap-around cartons



PET bottles



Glass bottles



Jars



Tin containers

Products that can be processed



C



D



E



F



A



B

- A) Integrated partition inserting device
- B) Detail of carton wrapping
- C-D) Bottle feed and pack assembly detail
- E) The Hot Melt sealer
- F) Overall view



A

Formex, Insert, Stick

Carton erector, partition inserter, carton sealer

Formex

Automatic carton erector for American-type cartons, with the following features:

- Carton magazine with adjustable guides, with a maximum capacity of up to 180 cartons.
- Carton picking and opening assembly, consisting of a set of suckers and continuous mechanical movement.
- Motor-driven assembly moving the opened cartons forward.

The version to form the cartons and close the lower flaps without glue (FORMEX), as well as the version with "HOT MELT" glue (FORMEX H) or the one with adhesive tape (FORMEX N) are available.

Output

Up to 40 cartons/minute

Insert

Automatic partition inserting machine to open and place flat board preassembled partitions in the carton before or after bottle inserting. The machine is available in 3 versions:

Insert 1.1 : with 1 portal, 1 partition magazine and 1 lane carton feed.

Insert 1.2 : with 1 portal, 1 partition magazine and 2 lane carton feed.

Insert 2.2 : with 2 portals, 1 partition magazine and 2 lane carton feed.

- Each portal is equipped with one gripping head; the version with two heads in case of 6 bottles partitioning is also available.
- Motorized partition magazine with modular chain.
- Partition collecting head with partition opening by pneumatic movement.
- Portal movement with brushless motors.
- Quick tool-free changeover.

Output

Up to 70 partitions/minute

Stick

Automatic sealer for closing upper flaps of American-type cartons with "HOT MELT" glue, having the following features:

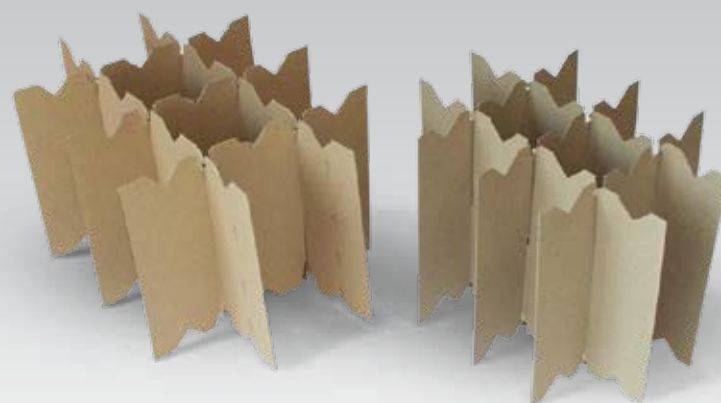
- Carton conveyors with distributor for cartons and adjustable guides.
- "HOT MELT" sealer, complete with injectors and glue heating tray.
- Upper flap pneumatic and mechanic closing device.
- Pressure rollers for upper flaps.

Both the version to seal the upper flaps (STIK/1), as well as the version to seal the upper and lower flaps (STIK/2) are available.

A **STRIP** version for sealing upper flaps with PVC adhesive tape is also available.

Output

Up to 40 cartons/minute



D



C



E



F



F

- A) Formex carton magazine
- B) Formex: overall view
- C) Stick: sealer and carton sealing detail
- D) Insert: detail of the partition inserting portal with double head
- E) Stick: overall view
- F) Insert: overall view