

SIPA

CARTONING SOLUTIONS



CARTONING SOLUTIONS

DESIGNED FOR TODAY'S PACKAGING CHALLENGES

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 **Sipa** range of **cartoning solutions** includes solutions for **American-type cartons**, **plastic crates**, and **trays**. 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 across-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**.

COMPLETE PACKAGING SOLUTIONS FOR AMERICAN CARTONS:

carton erectors, carton packers, partition inserter, carton sealers





SILENT

CASE PACKERS AND CRATERS/DECRATERS

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 with a double toothed belt kinematics. It is motorized by a pair of gearmotors driven by inverters and controlled by encoders to ensure precise, harmonic, and reliable movement over time.

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.

SILENT is a **multi-head (1 to 8 heads)** automatic case packer, offering scalable performance to meet the demands of both low and medium/high output lines.

OUTPUT

Up to 600 cycles/hour

TYPE OF PACKAGING



AMERICAN-TYPE
CARTONS



PLASTIC
CRATES



TRAYS

PRODUCTS THAT CAN BE PROCESSED



PET BOTTLES



GLASS BOTTLES



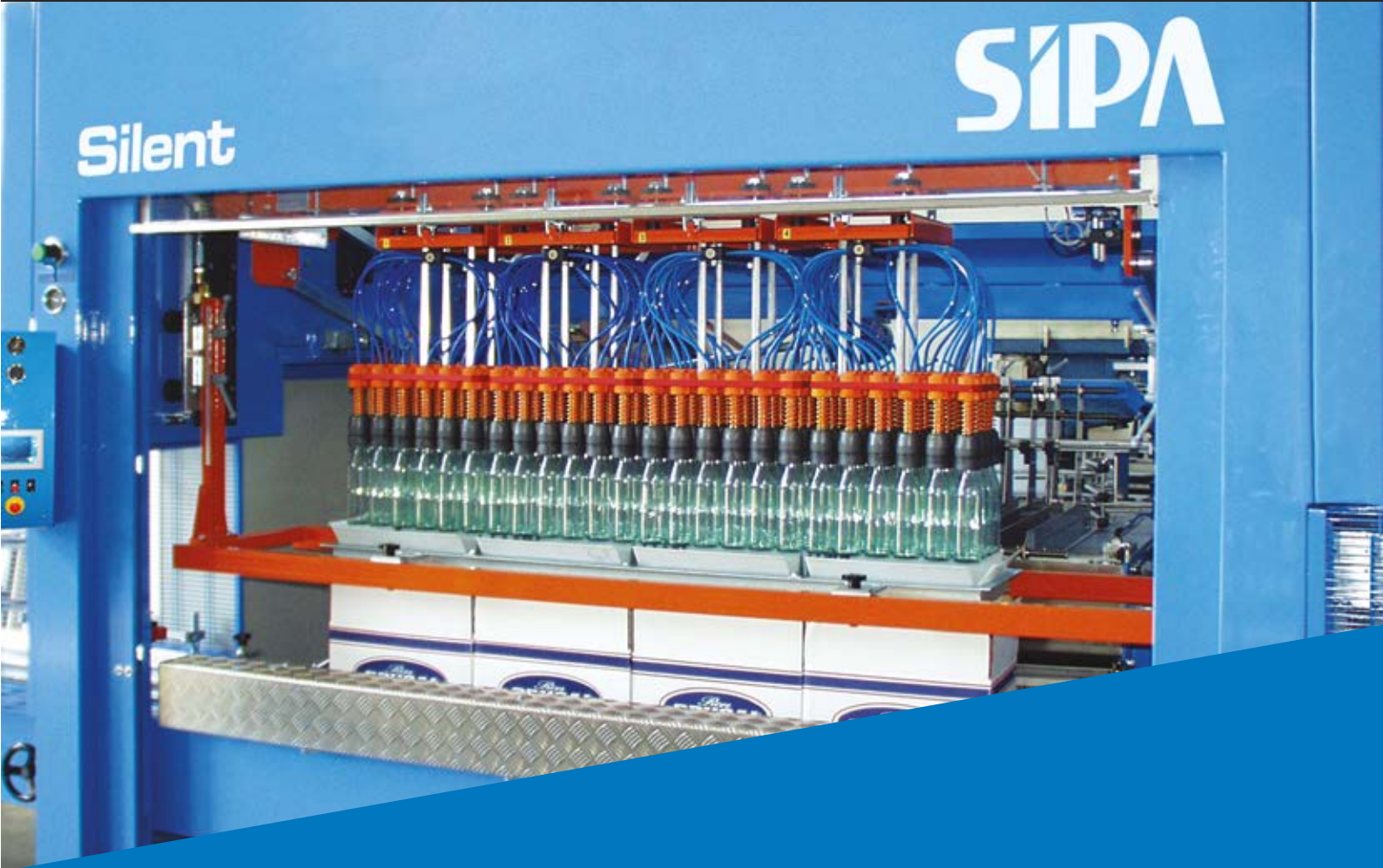
JARS



TIN
CONTAINERS



CANS





ROBBY PACK

ROBOTIC 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. 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 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 600 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



AMERICAN-TYPE
CARTONS



PLASTIC
CRATES



TRAYS

PRODUCTS THAT CAN BE PROCESSED



PET BOTTLES



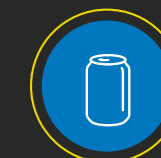
GLASS BOTTLES



JARS



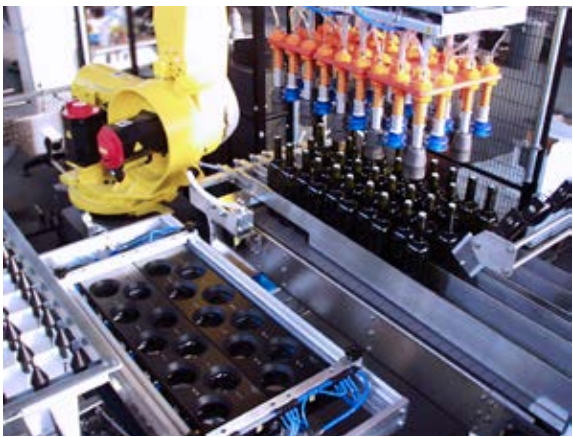
TIN
CONTAINERS



CANS

FLEXIBILITY FOR MASTERING COMPLEX HANDLING

Our ability to engineer diverse gripping heads ensures maximum versatility: the flexibility, accuracy, and repeatability of movements allow for complex handling. This includes packing bottles horizontally, crosswise, or flipped, with or without the insertion of partitions or interlayer pads, in addition to vertical bottle insertion.



Multiple gripping head (pneumatic membrane gripping heads and suckers) and vertical tilt unit for cartoning flipped bottles



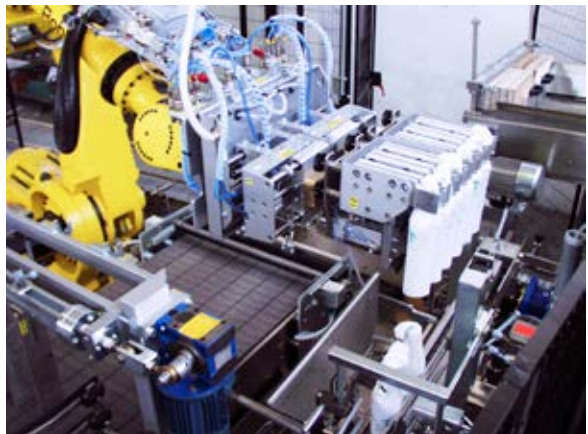
Sucker pick-up head for cartoning flat and crossed bottles



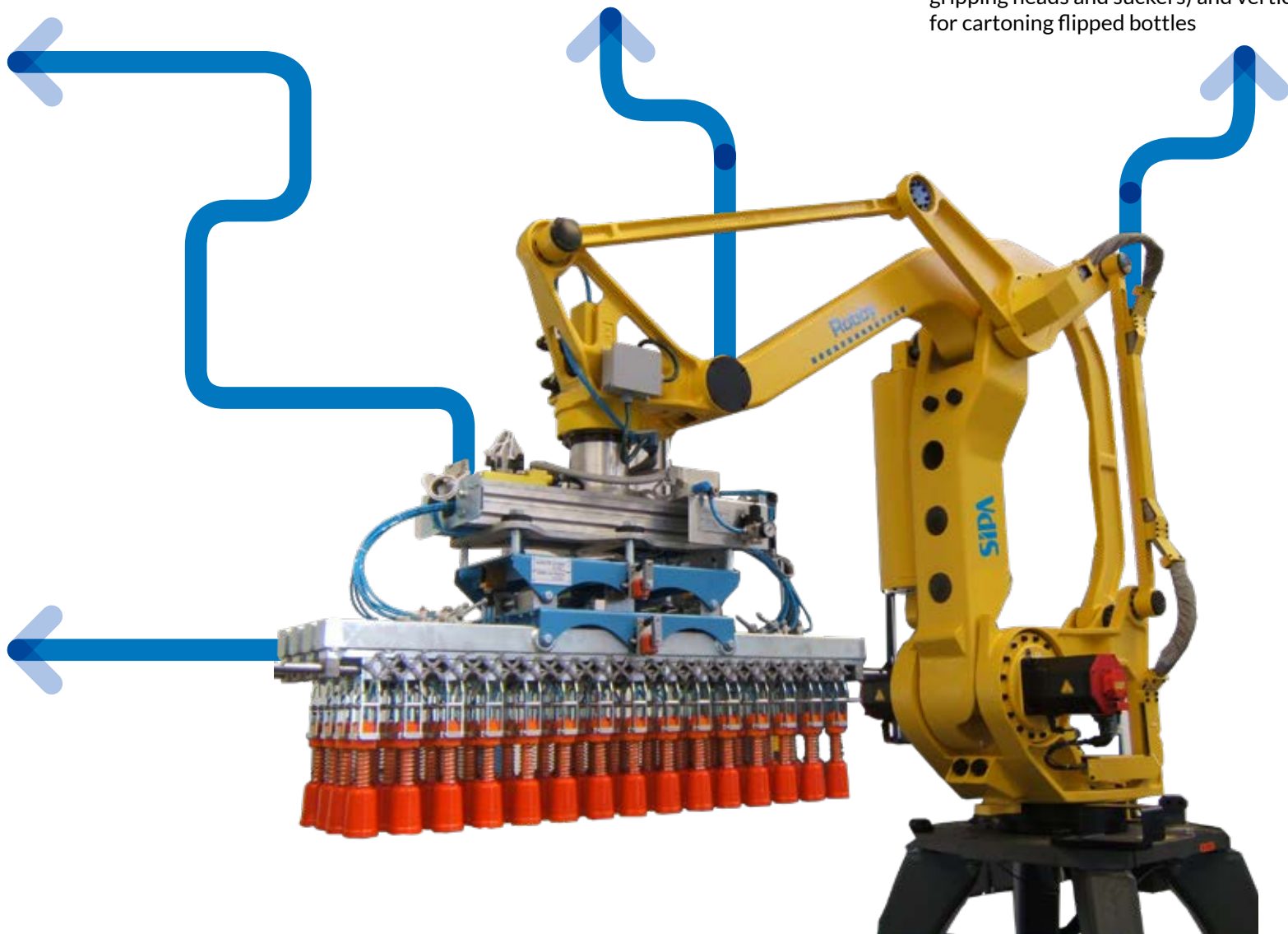
Multiple gripping head (pneumatic membrane gripping heads and suckers) and vertical tilt unit for cartoning flipped bottles



Combined cartoning solution for flat and vertical bottles with interlayer pads inserting device
Multiple gripping head (pneumatic membrane gripping heads and suckers) and vertical tilt unit for cartoning flipped bottles



Versatile gripper with pincer and suction cups for horizontal cartoning of paper-wrapped bottles, handling both products and cardboard dividers.



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.

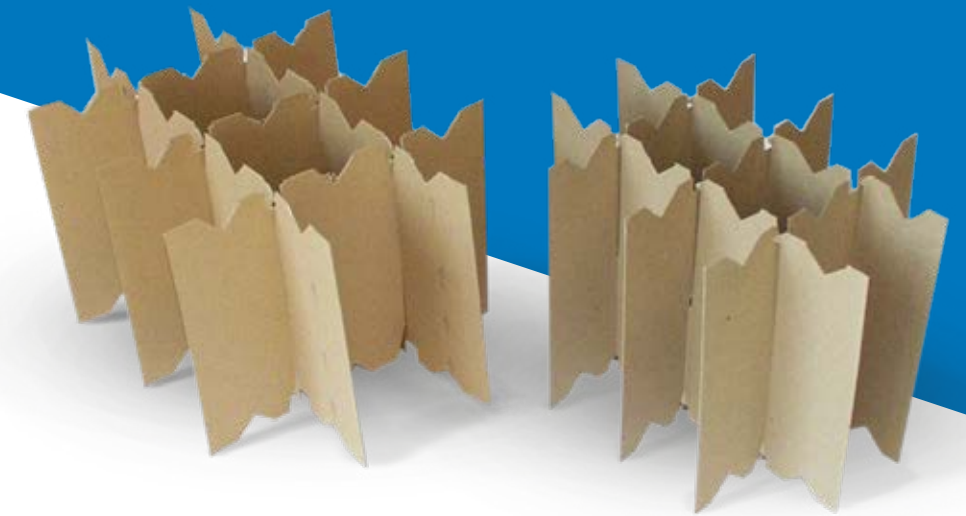
The machine is available in 2 versions :

- Insert 1.1: with 1 portal, 1 partition magazine and 1 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 cycles /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 (STICK/1), as well as the version to seal the upper and lower flaps (STICK/2) are available.

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

Output

Up to 40 cartons/minute





sipasolutions.com

SIPA S.p.A. - Via Caduti del Lavoro, 3
31029 Vittorio Veneto (TV) Italy
Tel. +39 0438 911511