GEA Packaging Solutions
Packaging systems for the beverage and food industry

GEA is a manufacturer and integrator of packaging systems for the beverage and food industry.

The range of machines manufactured consists of:

- Primary packages conveyors (bottles, jars, cans), empty and full
- Secondary packages conveyors (packs, cartons, crates, etc.)
- Pallet conveyors, horizontal and vertical (elevators/lowerators)
- Shuttles
- Bottle dividers
- Drying systems
- Depalletizers for loose containers and cases, traditional and robotised
- Palletizers for cartons, shrinkwraps, crates and loose containers, traditional and robotized
- Line automation and supervision with production data acquisition

Thanks to a massive R&D activities and experience on field, GEA has introduced an innovative range of packaging solutions. GEA stands out today, in the market of packaging systems thanks to its willingness and capability to understand and fulfill the needs of different customers, providing tailored-made solutions.
Layer Preparation System

Polaris F
The layer preparation system Polaris F can prepare an entire layer of products (even particularly unstable ones) without any jolts during the repositioning phases. It is composed by one or two industrial anthropomorphic robots, which feature high standards of robustness thus ensuring low maintenance costs. It works thanks to a self-centering, completely motorized gripping head that, connected to the arm, moves and/or rotates packs to their required position, in order to prepare a whole layer of products according to a pre-defined pattern, without any need of air consumption.

Polaris F configuration guarantees the following advantages:
- Compact footprint
- High visibility and easy access for the operator due to the absence of obstructing support structures.
- Optimization of the downstream palletizer speed capacity, thanks to a continuous working mode, without any interruption between each layer preparation
- Easy transport and installation operations
- Gentle handling of any type of pack avoiding jolting during rotation and positioning
- Fast changeover with no need for any mechanical intervention

The “Smart Layer” software, specifically developed by GEA and available as an option, allows the final user to autonomously create new palletizing patterns.

Polaris F is a modular system that can be installed as a single unit (for medium-speed lines) or in series (for high-speed lines and/or complex palletizing patterns).
Medium Speed Palletisers

Opera
Low level infeed of the packs, with single, double, triple lane; also available with pack divider or manipulator, to speed-up the production and/or for unstable packages.

- Double column structure with layer discharge head on lifter and fixed pallet.
- Single or double layer pushing system at 90° to the infeed.
- Rows formation table made with belts and step-by-step movements.
- Layer discharge head with roller platform opening in the middle, suitable for any palletizing pattern and type of package.
- Extensive use of belt transmissions for maximum reduction of the noise and elimination of lubrication interventions.
- Independent and motorised side compacting guides for automatic change-over of the palletizing patterns and pallet dimensions.
- Easy access to any part of the machine for interventions and maintenance.
- Easily tailored in many different configurations.

Agilis - Production speed up to 5.5 layers/min.

Opera - Production speed up to 4 layers/min.
Agilis
High level infeed of the packs, with single, double, triple lane; also available with pack divider or manipulator, to speed-up the production and/or for unstable packages.

- Double column structure with layer discharge head fixed at high level and pallet on lifter.
- Single or double layer pushing system at 90° to the infeed.
- Rows formation table made with belts and step-by-step movements.
- Layer discharge head with roller platform opening in the middle, suitable for any palletizing pattern and type of package.
- Extensive use of belt transmissions for maximum reduction of the noise and elimination of lubrication interventions.
- Independent and motorised side compacting guides for automatic change-over of the palletizing patterns and pallet dimensions.
- Easy access to any part of the machine for interventions and maintenance by means of a platform.
- Easily tailored in many different configurations.
High Speed Palletisers

**Artis Evo**
Low level infeed of the packs, with double lane and pack divider or manipulator.

- Mono column structure with layer discharge head on lifter and fixed pallet.
- Special head (Patented) for layer pick-up system which avoids the need of the layer pusher.
- Layer discharge head with roller platform opening in the middle, suitable for any palletizing pattern and type of package.
- Extensive use of belt transmissions for maximum reduction of the noise and elimination of lubrication interventions.
- Independent and motorised side compacting guides for automatic change-over of the palletizing patterns and pallet dimensions.
- Easy access to any part of the machine for interventions and maintenance.
- Easily tailored in many different configurations.

**Fluens**
Available in low level infeed version or high level infeed.

- Double column structure with layer discharge head fixed at high level and pallet on lifter.
- Double lane feeding system with divider or manipulator.
- Two layer pushing systems.
- Intermediate layer lifting table (Patented – on Low level infeed model).
- Layer discharge head with roller platform opening in the middle, suitable for any palletizing pattern and type of package.
- Independent and motorised side compacting guides for automatic change-over of the palletizing patterns and pallet dimensions.
- Extensive use of belt transmissions for maximum reduction of the noise and elimination of lubrication interventions.
- Easy access to any part of the machine for interventions and maintenance.
Artis Evo - Production speed up to 6 layers/min.

Fluens - Production speed over 8 layers/min. (low level infeed)
over 10 layers/min. (high level infeed)
OMNIA AND FANUC, ANTHROPOMORPHIC INDUSTRIAL ROBOT
Omnia and Fanuc

GEA packaging designs and manufactures a wide range of robot systems for any application. The heart of the system is a FANUC anthropomorphic industrial robot, which can be integrated with different ancillary equipment:

- loading and deposit bays: in rows, complete layers, bulk;
- gripping heads: for crates, cartons, shrink-wrap, loose bottles,
- accessories: layer-pad and pallet magazines, case compacting units;

Robot systems are especially suitable for low and medium speed lines as they allow:
- simultaneous palletisation from multiple lines;
- simultaneous palletisation of packages of different types and dimensions;
- simultaneous palletisation and depalletisation;
- fast gripping head changeover for different operating purposes;
- minimization of required installation space;
- possibility of expansion for a future production increase and/or system re-conversion for different uses;
- long-term value of investment.

OMNIA robots are available in different models, from 160 to 700 kg loading capacity, suitable for production speeds up to 11 cycles/min.

HMI and standard components

All GEA packaging equipment are equipped with user-friendly graphic interface which facilitates the intervention on the equipment and reduces the time for the training of the machine’s operators.

The standard commercial components, mechanical and electrical, fitted on equipment are of the major brands available on the market (ex. SEW, Siemens, Danfoss, etc.) thus guaranteeing to the customers the utmost reliability of the equipment and quick delivery of spare parts in any part of the world.
Depalletisers

**Velox**
Machine designed for medium to high speed with discharge of the containers at high level.
- Four column structure with layer discharge head fixed at high level and pallet on lifter.
- Layer loading and transfer device with pneumatic side compacting guides.
- Layer deposit table with low friction modular chain.
- Extensive use of belt transmissions for maximum reduction of the noise and elimination of lubrication interventions.
- Easy access to any part of the machine for interventions and maintenance by means of a platform.
- Different layer-pad removal devices available:
  - integrated with the layer pushing device,
  - perpendicular to the pallet;
  - combined with tray/top-frame removal device
- Easily tailored in many different configurations.

**Resolvis**
Machine designed for low to medium speeds with discharge of the containers at low level.
- Double column structure with layer discharge head on lifter and fixed pallet.
- Layer loading and transfer device with pneumatic side compacting guides.
- Layer deposit table with low friction modular chain.
- Layer pad removal device, rotating column type, available with also with integrated empty pallet/tray removal device.
- Extensive use of belt transmissions for maximum reduction of the noise and elimination of lubrication interventions.
- Easy access to any part of the machine for interventions and maintenance.
- Easily tailored in many different configurations.
Velox - Production speed over 6 layers/min.

Resolve - Production speed up to 3 layers/min.
We live our values.
Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.