



PALLETISING AND DEPALLETISING

Robot or traditional solutions
for different product sectors.

OCME was established in 1954 and is known all over the world as one of the most reliable and innovative leaders in the automated packaging machinery and solutions sector. The headquarters are situated in Parma, Italy, and has operations world-wide. It has provided its customers top-quality consumable packaging solutions, based on ongoing innovative research for 64 years.

OCME solutions are devised and produced in packaging valley, the Italian packaging machinery production hub and just like our red logo, the symbol of successful Italian industry across the globe. After half a century of business, we believe our red line logo symbolizes our uninterrupted journey towards our sole objective: excellence.



Aetnagroup, established in 1982, is world leader in the technology of stretch wrapping, with a production of more than 9,000 machines per year, 80% of which are exported to the main international markets.

Six technologies have been developed by the company: robots, tables and rotating arms for stabilising palletised loads by means of stretch film (core business), horizontal wrapping machines with stretch film for elongated products, machines for the application of stretch film and taping machines. Thanks to a widespread distribution network and centres for technical service and spare parts available at the foreign branches, Aetnagroup ensures timely, problem-resolving after-sales service worldwide.



305 M turnover



1360 employees
(67%Italy, 33% ROW)



17 locations
worldwide



+ 100 Centres
World-wide after-sales support



+ 26,000
Automatic machines sold



2 Ocme production sites (Italy and China)

7 Aetnagroup production sites (5 in Italy, 1 USA, 1 Brazil)

OUR SOLUTIONS

DEPALLETISERS



Antares
Depalletisers
for cases

Dorado
Depalletiser
for bulk containers

Pegasus D
Robot Depalletisers

Starline
Depalletisers for bulk
containers and cases



FILLERS FOR VISCOUS LIQUIDS



Libra R
Rotary weight filler

Libra LT
In-line weight filler

Virgo
Rotary filler
for edible oil



PACKERS



Altair
Wrap-around carton
packer

Vega
Shrink wrapper packer

Gemini
Combined solution



PALLETISERS



Perseus
Traditional palletiser
with 90° infeed

Orion
Traditional in-line
palletiser

Pegasus
Palletiser Robot

Dynamic
Traditional palletiser
with 90° infeed

Ares
mono-column
palletiser



WRAPPING MACHINES



Helix
Range of wrapping machines
with rotating arm

Genesis
Range of wrapping
machines
with rotating ring

Rotoplat
Range of wrapping machines
with turn-table



INTRALOGISTICS



Auriga PS
Powered Stacker

Auriga CT
Counterbalanced Truck

Auriga Z
Stabiliser

Auriga C
Conveyor

Auriga 14RT-H
Vehicle with
retractable forks



OCME IN PALLETISING

OCME began to build palletisers in the '60s, one of the first in Europe and since then a point of reference in the world of palletisation.

OCME and AETNAGROUP immediately succeeded in establishing themselves on the market as cutting-edge suppliers both in terms of quality of the solutions produced and of the performance achieved by their machines.

It is no coincidence that the first palletiser ever installed in Europe was the one produced by OCME and supplied to Esso Italiana in Vado Ligure (Italy) in 1964, thus testifying to a history that goes back a long way and has evolved over the decades making OCME a reference point for FMCG manufacturers worldwide for the supply of turnkey end-of-line products.

Since the early '60s, year after year, new machines, innovative solutions and specific devices for the end of line have been developed, increasing the range of manipulators and palletisers.

Innovative solutions have been implemented from the beginning, such as the patent for the layer gripping head installed on anthropomorphic arms that contributed to securing technological superiority over competitors.

Over time, OCME's experience has increased dramatically and, thanks to joining the Aetnagroup in 2019, we have a portfolio of solutions that has increased our leadership as a supplier of end-of-line solutions.

/ 1960

/ TODAY



OUR ADVANTAGES

The experience and the wide range of models of traditional and robotic palletisers allow for a multitude of configurations that adapt to the characteristics of the package, the speed of the line and the needs of the site layout.

Our goal is not only to supply reliable and highly technological machines, but also to find the best solution that responds precisely to the real needs of customers. The complete support that the team of technicians and engineers wants to give to customers starts from the early stages of the project, so as to develop a business idea towards the greatest possible efficiency.

This is our main aim: to create a tailor-made solution that perfectly matches the available space, allowing optimal accessibility for operators and raw materials, with an analysis of product accumulation and that is geared to energy savings, safety and efficiency of the system. In the world of turnkey suppliers, we offer a wide range of services such as: feasibility analysis, technical evaluation visit, line automation, project management and site management service.

From beverage to tissue, from food to petrochemical, we offer the most suitable solution. The high technological level applied (many patents have been registered) allows traditional, robotic and mixed technology solutions.



BEVERAGE **TISSUE** **FOOD** **VISCOUS LIQUID** **AND OTHER**

HIGHER EFFECTIVENESS	HIGH LEVEL OF FLEXIBILITY
HIGH ROBUSTNESS AND RELIABILITY	ENERGY SAVING (REDUCED OPERATING AND MAINTENANCE COSTS)
MAX. SAFETY	EASY MANAGEMENT OF SPARE PARTS AND REDUCED MAINTENANCE
SPACE SAVING	POSSIBILITY TO USE FRAGILE CONTAINERS, PRESERVING THEIR INTEGRITY
WIDE RANGE OF PALLETISING	HIGH AUTOMATION

SAFETY, ERGONOMICS AND SUSTAINABILITY

In the design of the new palletising systems, it was not possible to do without factors such as ergonomics, safety and sustainability: here, OCME develops its solutions according to extremely high criteria.

The systems are equipped with the most advanced protection systems and, at the same time, with maximum accessibility to facilitate cleaning and maintenance; targeted technical solutions have, finally, allowed a significant reduction in energy use, for example thanks to brushless motors. An anti-collision system is installed on the gripping heads allowing the robot to avoid bumping into products or objects that are accidentally within its range. Below are some of the safety solutions provided with our palletising and depalletising systems:

- / Safety performance level Cat. 3 according to recognised standards
- / DCS - Dual Check Safety System on robot programming
- / Machine ready LOTO
- / Emergency stop buttons also supplied inside the perimeter fences
- / Automatic and redundant fall arrest device for suspended loads

Safety is reflected in ergonomics and has been the subject of interest to software designers. The operator interfaces of the new OCME palletisers and robots are designed to be user-friendly and take into account principles such as usability and ease of learning.

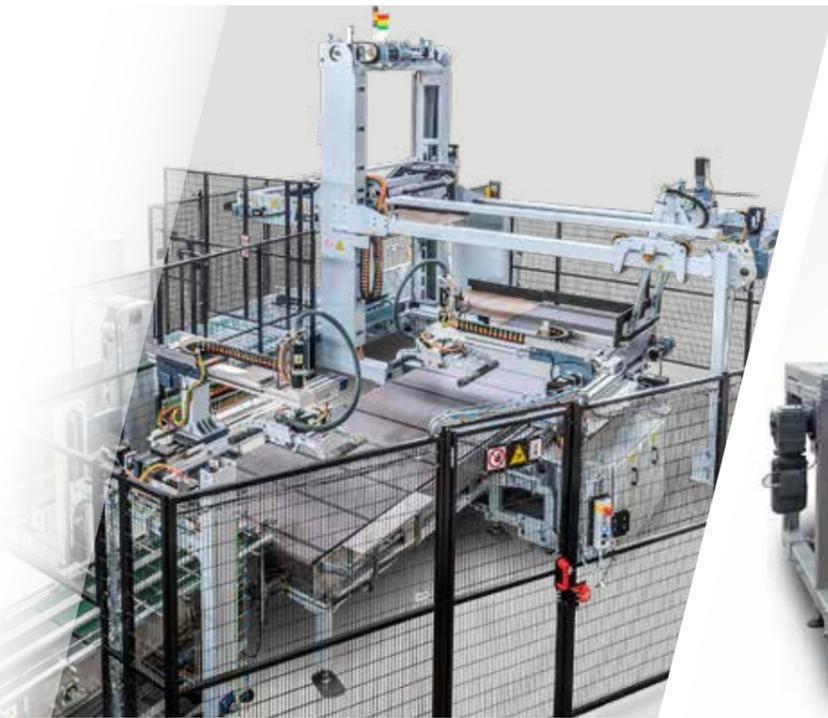


PALLETISERS WITH 90° INFEEED

The family of palletisers with infeed of the product at 90° with respect to the direction of translation of the layer can be considered the most traditional and compact.

PALLETISERS WITH IN-LINE INFEEED

Product infeed and layer formation take place in the same movement direction. The range includes some of the fastest machines in the world and is the ideal choice for many high-end applications.



PERSEUS TRADITIONAL PALLETISERS WITH 90° INFEEED

Perseus N is the traditional palletiser with 90° infeed. Depending on the model chosen, the product infeed can be from low level (LF-N and Z) or from high level (HF-N and HM-N), with fixed (LF-N, HF-N and Z) or mobile pallet (HM-N). The model Perseus Z, derived from the N model, differs from the latter only by the layer pushing system integrated in the machine.

The range is completed by the model Perseus F, a specific palletiser for processing 60 l and 200 l drums.

- / SPEED**
- PERSEUS LF - N up to 5 layers/min
- PERSEUS HF - N up to 5.5 layers/min
- PERSEUS HM - N up to 8.5 layers/min



DYNAMIC TRADITIONAL PALLETISER WITH 90° INFEEED

Dynamic is the automatic 90° layer palletiser with fixed pallet, available in single or double infeed versions. Palletiser suitable for processing different types of product, built with a sturdy double column structure suitable for palletising layers up to 300 kg on 1200x1200 pallets.

- / SPEED**
- DYNAMIC up to 4 layers/min



ORION IN-LINE PALLETISERS

Orion N is the traditional in-line palletiser. Depending on the model chosen, the product infeed can be from low level (LF-N and Z) or from high level (HM-N), with fixed (LF-N and Z) or mobile pallet (HM-N).

The model Orion Z, derived from the N model, differs from the latter only by the layer pushing system integrated in the machine.

- / SPEED**
- ORION LF - N up to 5 layers/min
- ORION HM - N up to 10 layers/min
- ORION Z up to 5 layers/min



ORION ADVANCE HIGH SPEED IN-LINE PALLETISERS

The Orion Advance model is a machine from low level with a double mobile table, guaranteeing high performance with reduced dimensions.

Solution created for the beverage sector but applicable to all those sectors where it is necessary to combine accessibility, compactness and speed.

- / SPEED**
- ORION ADVANCE up to 9.5 layer /m



ROBOT PALLETISERS

The configuration of the robotic island is variable according to the type of layout and container to be processed or to the speed of the line. Depending on the selected gripping head, Pegasus is divided into two families: row gripping and layer gripping.



PEGASUS ROW GRIPPING

The configuration of the robotic island can be customised according to the type of container to be processed and the speed of the line. Before the palletising phase, the row is created by means of a series of dedicated motorised conveyors.

The OCME row gripping heads can be motorised or pneumatic.

/ SPEED
PEGASUS - ROW GRIPPING up to 11 cycles/min



PEGASUS LAYER GRIPPING

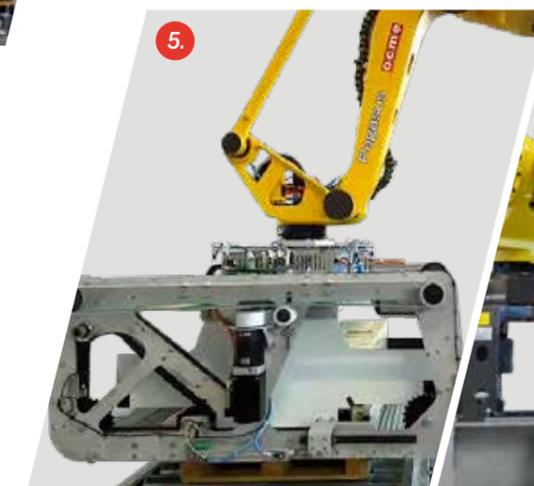
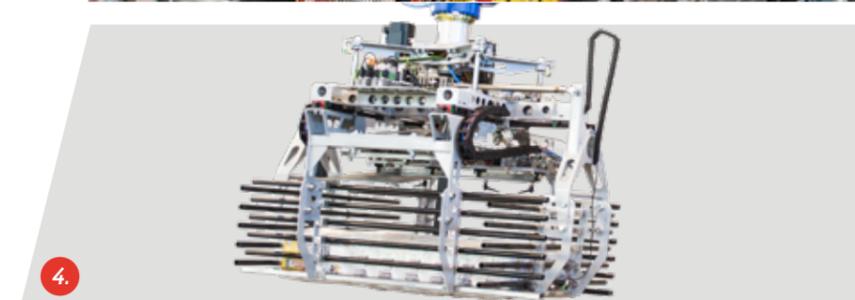
The configuration of the robotic island can be customised according to the type of container to be processed and the speed of the line. Before the palletising phase, the layer is created using the Mizar layer forming system. OCME gripping heads can be motorised or pneumatic, with plates without lower layer support (OCME patent) or with support (apron or forks). Pegasus Advance is the version with the highest performance among the palletisers offered by OCME, with its 10.5 layers/minute.

/ SPEED
PEGASUS - LAYER GRIPPING up to 10.5 layers/min



THE GRIPPING HEAD

OCME and Aetnagroup have a wide range of applications for their robotic gripping heads. Each solution is specifically designed to handle the type of product requested in the most efficient way.



/ ROW GRIPPERS

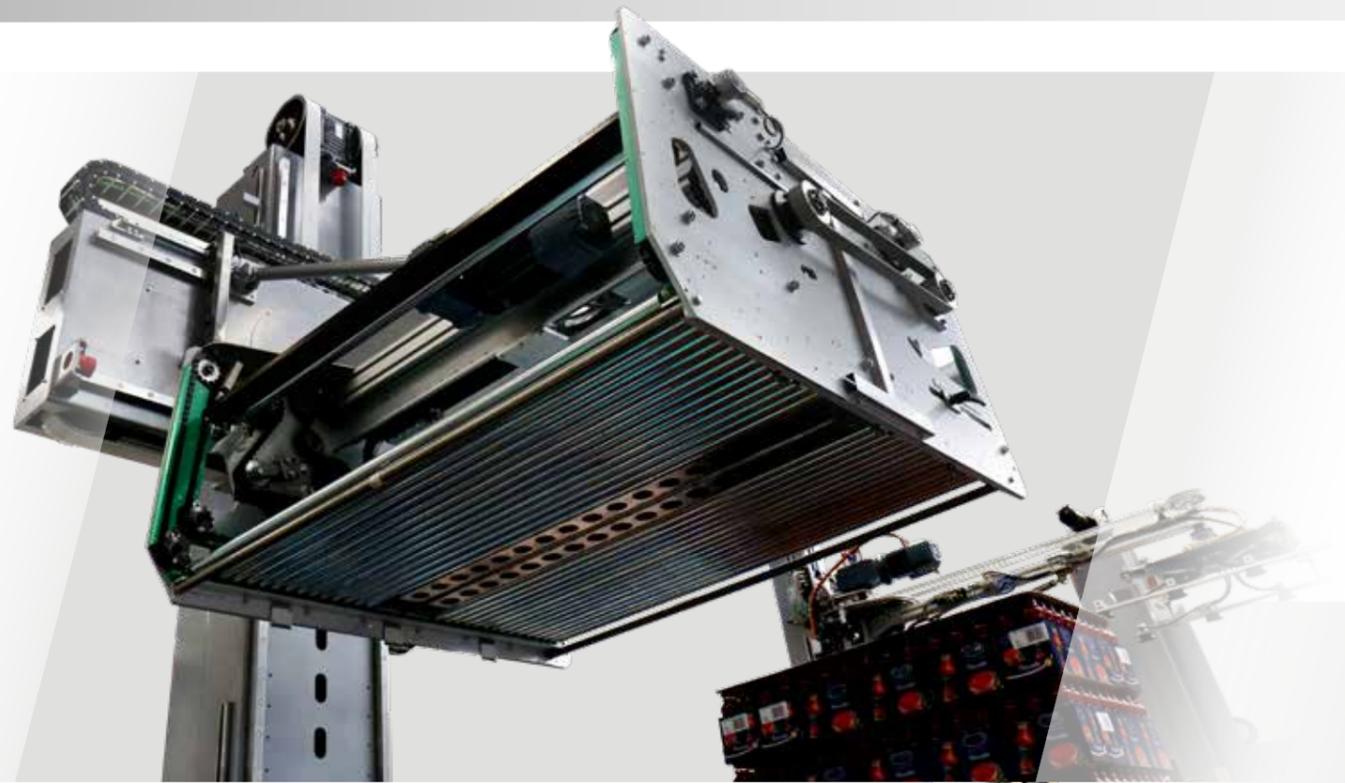
1. Pneumatic
2. Motorised

/ LAYER GRIPPERS

3. Forks
4. Without support
5. Apron
6. Bulk

ONE-COLUMN PALLETISER

PROGRAM MAKER SOFTWARE FOR PALLETISING



ARES

Ares is the one-column palletiser; depending on the model chosen, the product infeed can be in-line or 90°, both available in the version with fixed pallet.

The machine is equipped with an apron or fork gripper with the possibility of customising it according to the requirements of the product or performance. Depending on the layout configuration, the palletising system can be equipped with an anthropomorphic robot.

It can palletise different types of product guaranteeing precision, reliability, minimum space requirements and fast size changeover.

/ SPEED

ARES up to 6 layer min



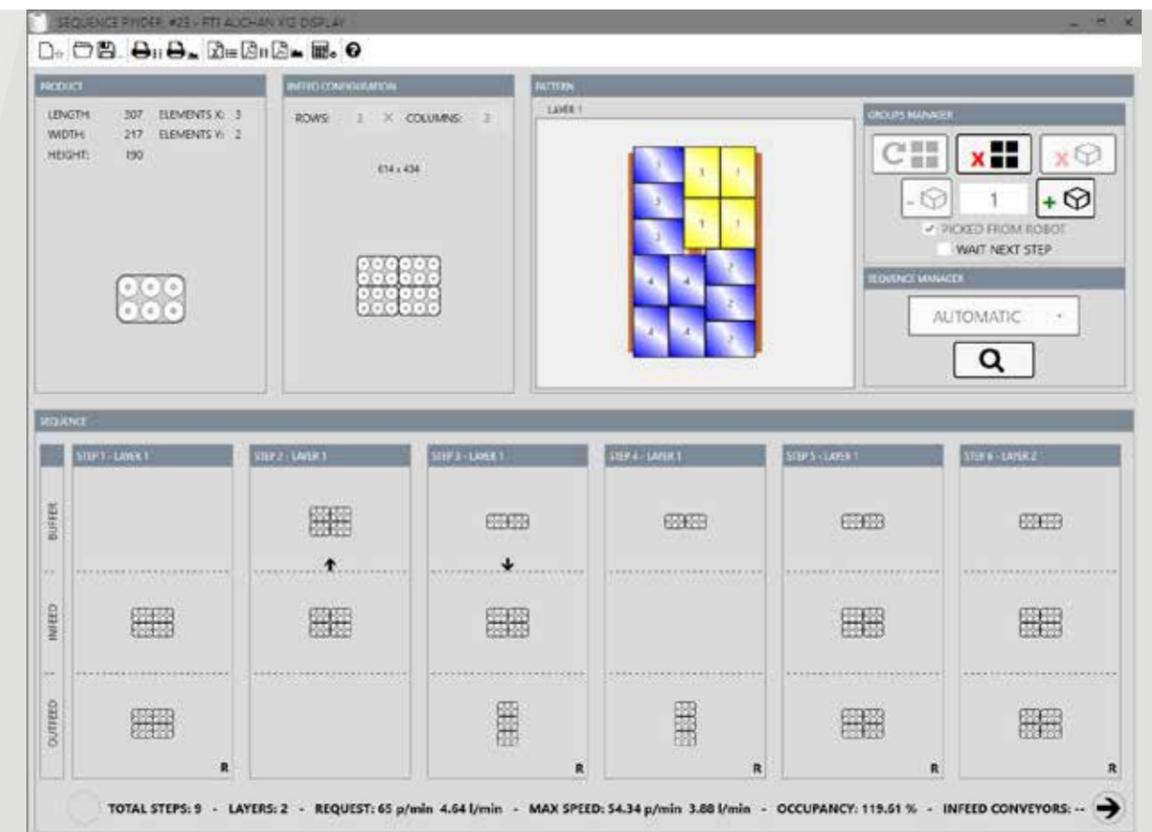
Software that simplifies the creation of palletising sizes thanks to a mainly graphic structure.

Thanks to the engineering that develops the software for our products and a dedicated research and development department, we can offer an interface that allows our customer to create and modify the palletising programs.

This very intuitive system allows you to check the picking and depositing settings through previews generated on the screen that display the result of the settings before the machine is started.

Starting from two simple information, pack size and pallet type, the system generates a series of palletising schemes that are the starting point for the choice of the desired sequence. The 3-D previews that accompany the entered settings facilitate the definition of the work to be done and allow you to make changes and verify the result in real time.

Further, the programming interface navigation is sequential, so you will need to complete all the steps to get a new palletising program.



DEPALLETISERS

Traditional depalletising provides for the introduction of bulk products from a pallet to the production line automatically and precisely. The range of OCME depalletisers includes machines with product infeed from low level or from high level, with fixed or mobile pallet, with layer transfer by rotating bar or with gripping head with self-centring dams.



DORADO TRADITIONAL DEPALLETISER FOR BULK CONTAINERS

Depending on the model chosen, the product infeed can be from low level with fixed pallet (LF) or from high level with mobile pallet (HM). The first phase is the unwrapping of the pallet.

The operator has a comfortable platform for easy access to the pallet and to carry out all the necessary operations safely. The layer is transferred by means of a gripping head with self-centring dams (LF) or by means of a rotating bar (HM).

The layer pads, frames and tops are picked up by means of dedicated bar or column devices.

Finally, the packs are removed to proceed in a single line.

/ SPEED
DORADO up to 3 layers/min



ANTARES CASE DEPALLETISER

Depending on the model chosen, the infeed can be from low level with fixed pallet (LS) or from high level with mobile pallet (HS). These models can also be offered in the double version (-D).

/ SPEED
ANTARES up to 12 layers/min



STARLINE DEPALLETISER FOR BULK CONTAINERS AND CASES

The product infeed is from low level with fixed pallet. The first phase is the unwrapping of the pallet.

The operator has a comfortable platform for easy access to the pallet and to carry out all the necessary operations safely. The layer is transferred by means of a gripping head with self-centring dams.

The layer pads, frames, tops and empty pallets are picked up by means of a column robot.

Finally, the packs are removed to proceed in a single line.

/ SPEED
STARLINE up to 4 layers/min



PEGASUS D ROBOT DEPALLETISER FOR BULK CONTAINERS

After the pallet has been unwrapped by the operator, it enters the machine. Then, through the one-column device, stability is guaranteed to the pallet to be processed.

In the next step, thanks to the movement of the robot, the head moves the layer (including the layer pad on it) from the pallet to the deposit belt. The layer will move up to the position where a specific bar device will remove the layer pad.

In the final phase, the containers will be removed from the deposit belt and separated on single-row conveyors. Our robot depalletiser is able to manage multiple codes, being able to depalletise pallets from two separate infeeds.

/ SPEED
PEGASUS D up to 4 layers/min
/ Possibility of managing multiple codes



LAYER FORMING

The phase of pack rotating and layer forming has the purpose of arranging the packs according to a specific configuration required for the following phase of palletising in order to guarantee the highest stability of the pallet and the optimal number of products / layer

ROW FORMING ON ROLLERWAY OR BELT CONVEYOR

The systems for forming the row by roller conveyor consist in using separators (or dividers) against which the product stops in a specific position to create the individual rows that will form the palletising layer. A further solution is the use of a step-by-step belt conveyor which, thanks to a system of belts driven by brushless motors, allows the packs to be aligned to form the layer without the use of dividers but only by acting on the movement of the belts themselves.

LAYER FORMING USING PUSHERS

Forming system particularly suitable for palletisers with 90° infeed as the packs arrive perpendicular to the direction of movement of the pusher that transfers the individual rows up to the layer forming, ready to be compacted and transferred to the pallet.

LAYER FORMING WITH MANIPULATORS

Manipulators are designed to provide a high performance infeed to all types of palletisers: 90°, in-line and with robots.

The task of the manipulator is to translate and/or rotate the product to form and compact the layer, minimizing shocks or stress, especially for fragile or unstable products.

The layer forming system using manipulators is flexible and extremely precise, it can handle any type of pack, even the most delicate.

There are three variants of manipulators: Cartesian, robot or gantry manipulators.

All versions use brushless motorised gripping heads to guarantee maximum precision and optimal control of the clamping force.

The forming belt is driven by brushless motors to ensure maximum stability of the packs.

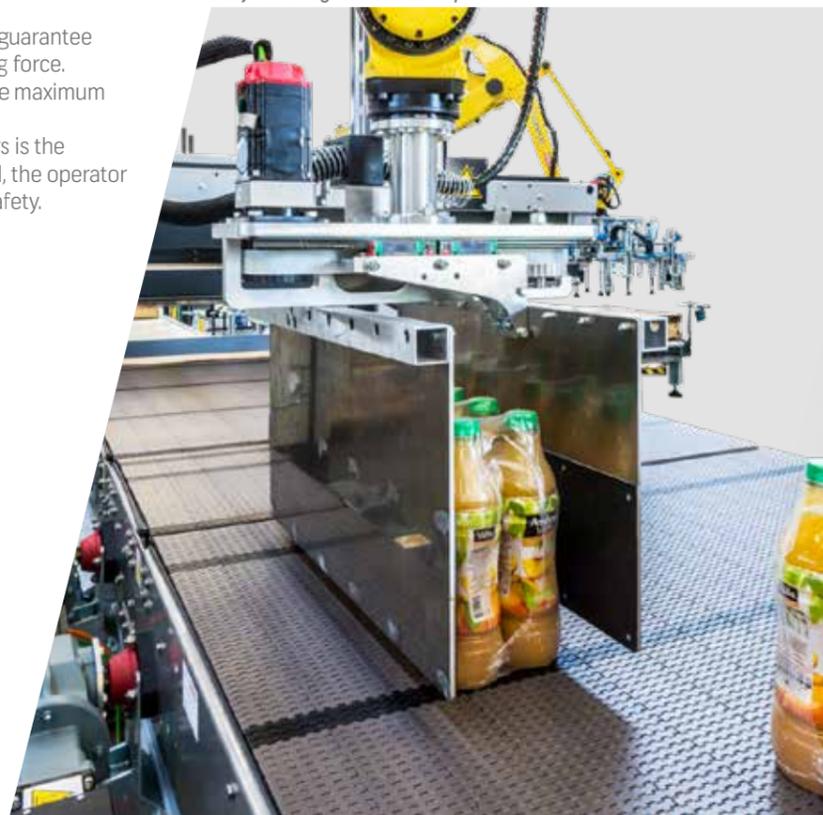
A significant differentiating element of the manipulators is the accessibility to each area of the system: in case of need, the operator can reach any point for any intervention in maximum safety.



Manipulator with gantry structure



Layer forming with robot manipulators



COMPLEMENTARY DEVICES

Some operations complementary to palletising are delegated to accessory devices

AUTOMATIC FEEDING SYSTEM FOR LAYER-PADS

The purpose of the operation is to insert the cardboard layer-pad in the correct position in the shortest possible time and without hindering the movement of other elements such as, for example, the robot palletiser arm.

The system guarantees great autonomy for feeding the layer-pad and is suitable for both traditional and robotic palletising installations.

- / Pallet with stacked interlayer pads is positioned on the upper conveyor
- / The scissor lift progressively raises the stack to the correct gripping position
- / Column type or robotic type interacting gripper puts the pads between the layers during the palletising phases
- / The scissor lift descends to the lower level of the conveyor to eject the pallet at the end of the pads
- / Self-centring motorised side guides for intermediate pads

The layer-pad feeding system can be column, bar or robot type. Motorised with two brushless motors, the systems guarantee accurate movement control and therefore precise synchronisation with the palletising robots, avoiding any kind of interference. Furthermore, the brushless motors permit the AIC device to follow optimised trajectories when lifting/lowering and rotating the layer-pad gripping head.

EMPTY PALLET INFEE SYSTEM

The empty pallet infeed system supplies the palletiser with empty pallets, so that this task needs not be carried out manually. The system is designed to guarantee maximum flexibility in terms of variations in pallet size. flexibility in terms of variations in pallet size. The system may be used with 4 forks instead of 2, so as to be able to use half-pallets (also called "demi-pallets").

SHUTTLES ON RAILS

Shuttles on rails may still be used when the route to be followed with loaded pallets is relatively simple and not too far away from the palletiser.



LIS - LINE INFORMATION SYSTEM

The line supervisor can be customised according to line features and needs of the customers. It was developed on a ZenOn platform (COPA-DATA) and runs on a dedicated Windows10-based server.

It may be installed in the office or directly in the production area, so as to monitor all the machines of one or more production lines.

The supervisor is designed to communicate with all the machines on the line using the most common Ethernet-based protocols (PVI, ethernetIP, etc.). Acquired data are formatted according to the international OMAC - PackML standard and are all easily accessible using a simple and user-friendly operator interface.

The many features offered by the LIS offers include:

- / Viewing the operating status of the entire line
- / Monitoring production status
- / Managing production shifts
- / Managing user authentication

The system provides the following information in historical form and real time:

- / operational status (OMAC status, speed, stops, etc.)
- / Performance and production data
- / Alarm events
- / Production reports

PackML
an OMAC standard



SOLUTION THAT CAN BE CUSTOMISED

Since the pallet can reach the point of sale directly, the ability of the palletiser to handle a variety of alternatives to meet the constant market demand becomes crucial. Among the many applications of technology that can be offered in palletising, it is worth mentioning the possibility of handling pallets such as "display pallets" or multi-flavour pallets.

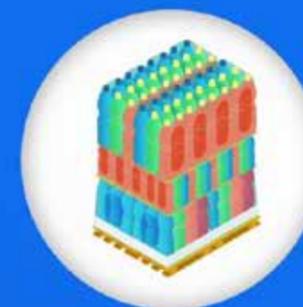
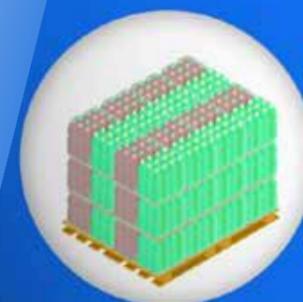
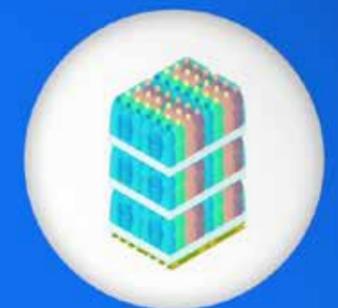
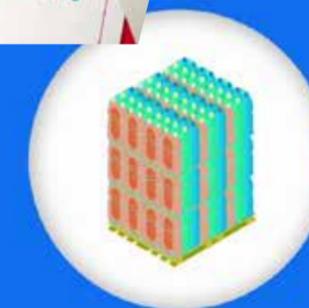
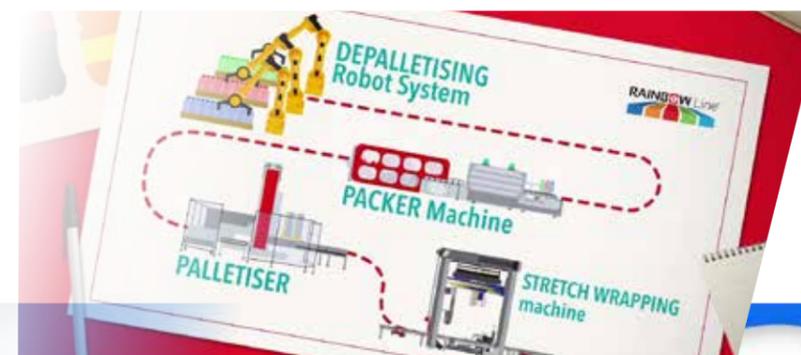
Thanks to our experience in designing complete lines, we have the know-how necessary to design integrated systems that allow us to palletise and package multi-flavour bottles with different configurations on a single tray according to the customer's settings.

The combinations of flavours according to the layout configurations can also be reflected in the configuration of the pallets which can have mono-flavour layers on a multi-flavour

pallet or the customisation of combinations of flavours in the management of demi-pallets or quarter pallets.

Our range of palletisers are equipped with several devices that, starting from the infeed, allow you to manage palletising schemes customised according to customer needs.

Manipulators and robots also allow an even more accurate level of control with all the flexibility that comes from their ability to quickly adapt to a new task that is assigned to them.



Innovation and avant-garde are among the main watchwords that unite Aetnagroup and Ocme. A clear example of this is TechLab™, the most advanced research laboratory system in the industry dedicated to continuous product and process development.

The main target of the TechLab™ laboratories is to allow all the Group's solutions to be tested and to offer customers the possibility of scientifically verifying the effectiveness of the palletised load packaging systems.

Thanks to its ability to stabilise and secure the palletised load, TechLab™ ensures that the product arrives at its destination perfectly intact. In addition, the lower use of packaging materials reduces costs and contributes to a lower environmental impact.

The consolidated know-how, the continuous updating and the technological evolution, as well as the assistance guaranteed on a worldwide basis, make Aetnagroup and OCME an international reference point for the design and manufacture of packaging machines.



THE END OF LINE

The palletising area is the heart of the end of the line.

The overall efficiency of this important node, in terms of corporate production potential, depends on the perfect integration of all machine devices and on a correct engineering layout, as much as on the quality of the palletisers.



OCME and Aetnagroup can pool on know-how acquired in over half a century of work, especially in the end-of-line sector, which is transversal to the product handled by companies. Logistics, warehouse management and traceability are activities that call for growing degrees of automation in order to guarantee repeatability and total production control.

LGV SHUTTLES

Handling of loaded pallets may be carried out using Auriga laser-guided shuttles or shuttles on rails. Auriga shuttles offer a much higher safety level combined with an operating cost that is considerably lower even on the medium-term. Auriga shuttles are available in various configurations and may therefore be perfectly adapted to the designated tasks, in terms of load capacity, type of product and also layout of the routes to be followed inside the production sites. Laser-guided vehicles may operate in groups controlled by a centralised system that efficiently dispatches orders and missions to each unit.

WRAPPING MACHINES

Aetnagroup, market leader with its wide range of wrapping machines, integrates wrapping or hooding machines according to customer requirements. In the wide range of wrapping machines, according to the requirements of layout and performance, we can offer wrapping machines with rotating ring, rotating arm or turn-table.

Pallet access to the wrapping area may be carried out by means of Auriga shuttles or using traditional pallet conveyors.

CUSTOMER SERVICE



With OCME's service solutions, an investment is made in long-term performance. We offer an extensive range of customer-focused services, based on assistance and after-sales support for the machine.

We provide several services, such as local or remote technical support through the use of the most modern technologies, the supply of spare parts, the installation of updates, maintenance contracts and more. Everything is devised with the aim of meeting the needs of our customers and building a lasting relationship, based on mutual trust and cooperation. Reactivity, proactiveness and proximity are some of the values we believe in, some of the principles we follow to accomplish our mission to the best of our abilities and reach our objectives.



FIELD SUPPORT

OCME offers a network of technicians located throughout the world, ensuring that ensuring your machines continue to work, and that production is optimal at all times. Field support includes several activities, such as diagnostics visits and reports, scheduled maintenance, servicing, installing updates and emergency intervention for problem-solving. Through direct analysis of the machine, the OCME technician will also be able to recommend the most appropriate upgrades and services for your plant. As soon as we receive a request from a customer, we select the most appropriate technician, taking into consideration the machine family and the activity to be performed on site.



SOPHISTICATED IT SOLUTIONS

We have devised a series of technologically advanced systems and services to put at your disposal, which envisage cooperation between customers and OCME technicians. Thanks to our 24/7 service and with the aid of wearable devices for remote visual support you will have the opportunity to link up directly with our expert technicians, who are available 24/7, in the event of a problem during production (paid service).



TRAINING

OCME offers consultancy programmes aimed at transferring and sharing our experience and technical expertise.

This way, you'll be able to get the most out of your machine, achieve safe production and optimise machine performance long-term. Each training course can be customised according to your needs. The aim of the course is to train your personnel on the method of intervention to guarantee machine operation with outstanding quality standards, taking into account the efficiency of production and basic compliance with prevention and safety procedures. This coaching phase helps maintain a high level of efficiency and productivity for your machine. These courses are designed to enable your staff to solve problems independently, improve results and achieve the success your company expects.



UPGRADES AND SPARE PARTS

As an original equipment manufacturer, we know exactly what your production line needs to deliver optimal and consistent results. Our specialised technicians analyse and test each and every part before delivery on time. Once the request has been received from a customer, a feasibility study is opened on the machine involved. The engineering department develops the request and offers the best solution, making use of cutting-edge materials and technologies.



MAINTENANCE CONTRACT

The maintenance contract is another great feature for your peace of mind! Rely on our experience to anticipate any possible problems, as well as on our prompt response times for impeccable service. The services we offer are designed according to a strategy that aims to provide added value to our customers' machines and plants over the years (TCO), to keep a trust-based cooperative relationship with our Customers, to prevent causes for malfunctioning and quickly solve any critical issues that may arise. The maintenance contracts are offered to Customers in a modular and flexible form, in order to put together an effective offer that is capable of accommodating the specific requirements of the Customer.

One of our IT solutions is the "MyOCME" App. This new App will grant you access to OCME services quickly and in a revolutionary manner, simply using your smartphone. The App will allow you to open Emergency Tickets relating to machines covered by a contract by means of an interactive channel that will further improve communication with our technicians and with the remote support service. "My OCME" allows us to digitise several existing procedures and also to include new features, such as routing and improving information on OCME services to our customers, speeding up requests for technical support in case of problems with our systems, providing any useful information on the services included in the Service Contract (SLA, list of machines, emergency ticket management, etc.).



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