

BROCHURE

Beverage technologies



WHO WE ARE

A leading platform for the processing automation and bottling technologies for the wine, spirits, beer, beverage, dairy, food, and pharma industries.

WHAT WE DO

We provide to our customers:

- 1. End-to-end integrated solutions, from process to final packaging. We are a single partner providing customers turnkey solutions and sustainable automation lines.
- 2. **Tailor-made solutions**, with a high degree of machinery customization, designed around a set of industrialized based modules.
- 3. Technical Support, we are committed to support our customers through the dedicated Service team, located all over the word.





Beverage catalog

Microfiltration

Product filtration

and CIP plant for

the bottling

From processing to final packaging

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The Group has developed an integrated offering for the entire process, from reception to packaging.

Blowing

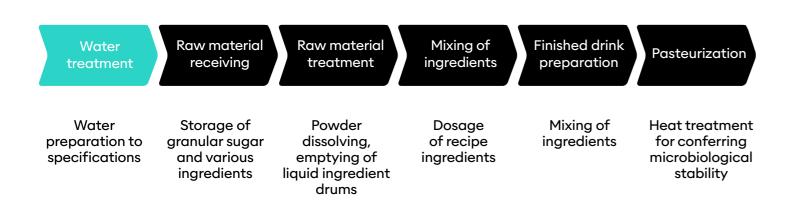
& filling

Blowing,

bottle rinsing,

filling and

capping



-





Labelling

Adding front /

rear / top labels

to the bottles

once capped



Packaging / palletising Waste water treatment

Conveying systems, secondary packaging, palletising and pallet wrapping

Water treatment plants for recovery and use



Beverage catalog

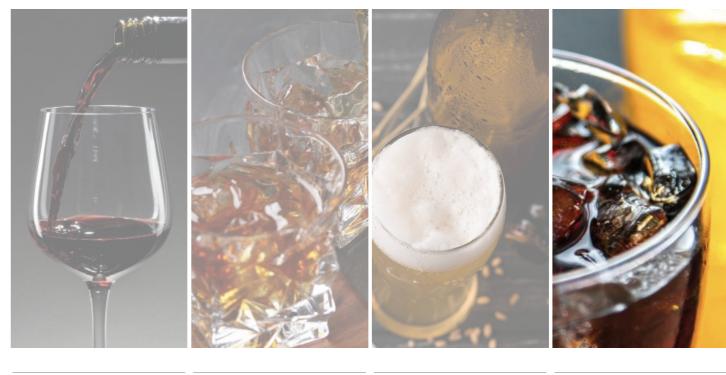
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THE GROUP'S PRESENCE IN THE WORLD



A global company with a strong sales and after-sales presence. Close to those who produce, anywhere in the world.

THE GROUP'S APPLICATIONS



Wine

Spirits

THE GROUP'S NUMBERS

30+ **PRODUCTIVE UNITS**

30.000 +400

INSTALLATIONS

24

COMMERCIAL & SERVICE OFFICES

R&D & ENGINEERS

90 COUNTRIES

+2.500

PEOPLE



Primary processing

Dairy & plant based beverages Fats, gelatines, cocoa butter

Beer

Beverages & water treatment

Pharmaceutical

TOWARDS THE FUTURE

Our vision and values to enable evolution

Our Vision

Inspired by our Italian heritage and our vocation for sustainability, we serve as technology leaders in the food, beverage and pharma industry, always at service of our customers, people and communities.

Our Values

01. **Technology** Innovation

With more than 400 engineers and technical specialists, we design and develop the most advanced and sustainable automation technologies.

02. Sustainability Respect

Our purpose is to integrate sustainability into every aspect, contributing to the achievement of the global goals of the 2030 Agenda. The strategic plan is based on 4 basic pillars - Corporate, People, Impacts Reduction and Innovation - that expand into 20 macro goals, currently implemented by 90 initiatives.

03. **Service** Accessibility

We are committed to providing and supporting our customers with 420 people in the service team mobilized around the world.

We are committed to being active promoters of a sustainable growth model, starting by valuing people, territory and the communities of which we are a part, and promoting the development of our partners and clients.



Scan the grcode, discover our Sustainability Report 2023.

70 PATENTS

20 ESG MACRO TARGETS

420 PEOPLE IN THE SERVICE TEAM



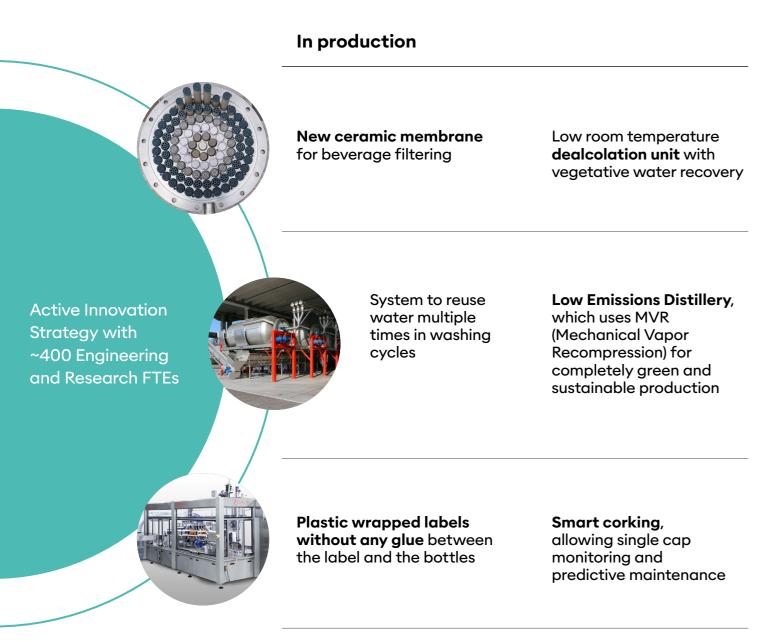
All Omnia Technologies solutions can be integrated with the new software for complete management of production flows: from fruit receiving to final packaging under the terms of Industry 4.0 and 5.0





Beverage catalog

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30+% 75%

reduction of energy consumption

of water savings



target of 100% energy from renewable sources by 2030



achieve zero waste by 2030

03. **Our Service offer**

Technical Support

We are committed to supporting our customers with 420 people in the service team mobilized around the world.

• Spare parts

We offer a wide range of original spare parts and a team dedicated to repair services.



Machinery upgrade

We know that technological progress is constantly evolving, and we want our customers to benefit from it.

• Training

We believe that knowledge is the key to success, which is why we offer tailored technical training courses.

Raw materials & products

The range of treated raw materials and products processed is wide:

Fruit with stone: peach, apricot, plum, cherry



Fruit without stone: apple, pear, orange, grape, kiwi



Tropical fruit: mango, pineapple, guava, papaya, passion fruit, litchi





Cold beverages | CSD - carbonated beverages



NFC & smoothies | Fruit juices with and without pieces

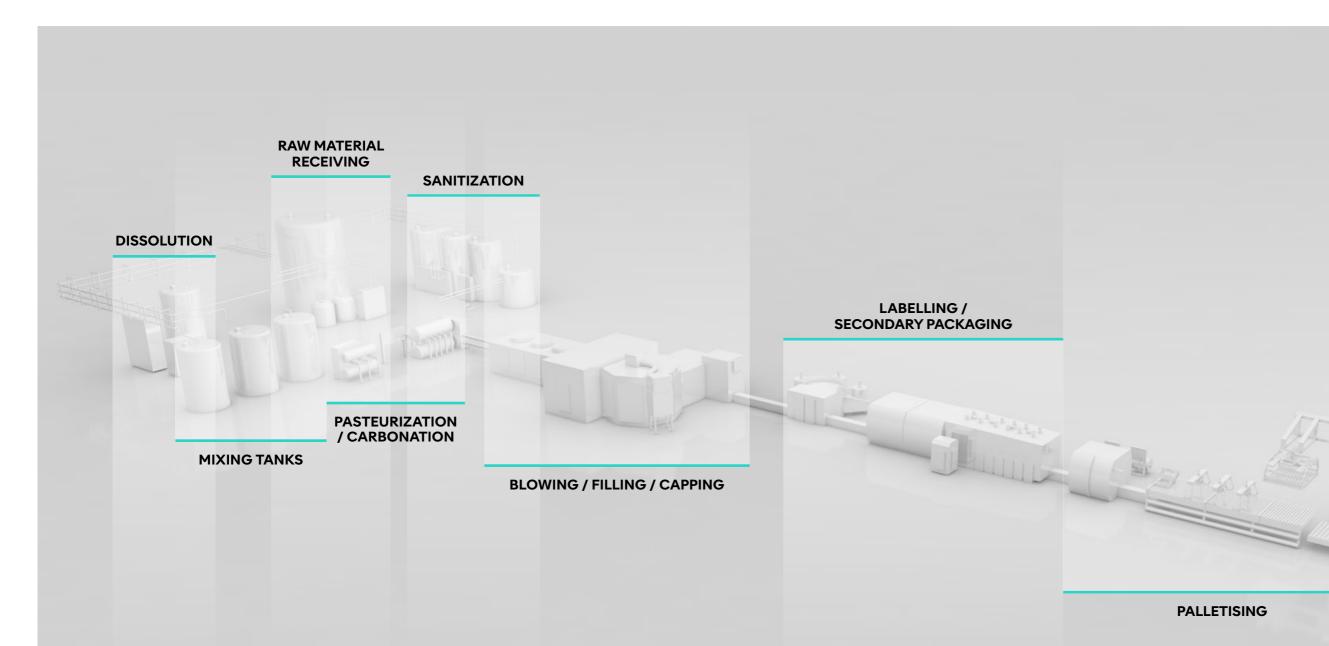


Cider, alcopops and hard seltzers





Beverage and water production



STRETCH WRAPPING

WATER TREATMENT



Water treatment

We provide water treatment plants following a precise and specific philosophy, based on these fundamental steps: approach and application analysis, information gathering and feasibility study, process development, design, installation, commissioning, and operator training.

→ Explore the full range of products



PRE-TREATMENT WITH SAND OR MULTIMEDIA FILTERS



STORAGE AND DISINFECTION OF RAW WATER



Storage and disinfection

Raw water coming from wells or the water network is first mechanically filtered to remove larger suspended solids. Next, a sodium hypochlorite solution is added inline. This serves both to disinfect the water and to oxidize dissolved iron and manganese, aiding their removal in the sand filters.

The removal of iron and manganese is important as these elements cause "fouling" (scaling) of the reverse osmosis membranes.

The water is directed into a storage tank large enough to ensure a minimum contact time of 30 minutes with the hypochlorite. The materials used are sanitary-grade and resistant to corrosion.

ACTIVATED CARBON TREATMENT

Sand or multimedia filters

Sand filters are pressurized stainless-steel tanks where the water, coming from the storage tank, enters from the top, passes through the sand bed, and exits from the bottom.

These filters work to remove turbidity by trapping particulates and suspended solids and eliminate oxidized iron and manganese.

The filters are regenerated through a highflow backwash procedure where the impurities trapped in the sand are flushed out.



Activated carbon treatment

Similarly to the sand filters, in activated carbon filters the water enters from the top, passes through the layer of activated carbon, and exits from the bottom.

The activated carbon adsorbs organic impurities and unwanted by-products from sodium hypochlorite disinfection, such as trihalomethanes, haloacetic acids, and removes chlorine and chloramines.

The filters are sized to ensure a sufficient contact time to achieve water with 0 ppm of chlorine, transparent color, and neutral taste. Besides being regenerated by backwashing like sand filters, these filters can be sanitised with hot water or steam.

ULTRAFILTRATION



Ultrafiltration

The ultrafiltration plants work with membranes designed to remove particulates and reduce high molecular weight organic molecules, suspended solids, microorganisms, and parasites.

This results in a decrease in turbidity, SDI (silt density index), TOC (total organic carbon), and microbial load. However, ultrafiltration is unable to remove dissolved iron and manganese, for which sand filters are needed.

→ Explore the full range of products

STORAGE OF TREATED WATER



DISINFECTION WITH OZONE OR UV

REVERSE OSMOSIS



Reverse osmosis

Reverse osmosis is the most powerful method for removing inorganic impurities, achieving efficiencies over 99%. Water is pumped at high pressure into vessels containing high-rejection filtering membranes. The membranes allow the passage of water but retain dissolved ions.

This generates a flow of purified water, called permeate, which exits from the central part of the membrane section, while the water remaining on the outer part of the membranes, known as concentrate due to its high salt concentration, is discarded. High molecular weight organic molecules and microorganisms are also retained. Reverse osmosis thus reduces TDS (total dissolved solids) pre-treatment. Flowrate and architecture of the reverse osmosis system depend heavily on the initial water quality, flow rate, and customer requirements.



Treated water storage

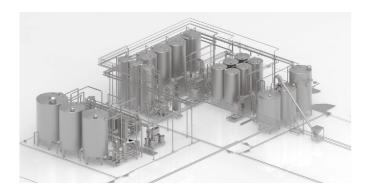
Treated water is normally stored in tanks equipped with a pump and recirculation circuit. The circuit ensures that water passes through a UV lamp to maintain disinfection and prevent stagnation.

→ Explore the full range of products

Disinfection

Water can be disinfected using UV lamps or ozone treatment. The ozone method involves using an ozone generator that pumps gas into the water flow. Typically, the goal is to achieve an ozone concentration of 0.2-0.4 ppm in the water.

The water is pumped into a pressurized contact tank large enough to ensure a minimum contact time with ozone, usually 2-4 minutes. The water can then be safely directed to various utilities or recirculated back into the ozonated water storage tank. These systems are designed based on the strictest hygiene and safety requirements.





RECEIVING AND STORAGE

Syrup room

Syrup room are process plants for the preparation of syrups and beverages, designed to maximize product quality based on the most stringent hygiene, flexibility, and safety requirements.

Entirely made of stainless steel, syrup rooms are manufactured based on the customer's needs. These plants can be manual, semi-automatic or fully automatic.

→ Explore the full range of products

HANDLING AND DISTRIBUTION



DISSOLUTION AND TREATMENT



Storage

Various liquid or powder ingredients are delivered in different containers (tankers, bags, drums) and properly conveyed into the storage systems, made from materials suitable for the specific operation, such as:

- Aluminum alloy (SUGAR and powder silos)
- Stainless steel (food liquids)
- Carbon steel or fiberglass (special liquids)

These systems are designed, built and equipped according to European standards regarding operating pressures (PED), specific risks (ATEX), and the preservation of the quality of stored products.

→ Explore the full range of products



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Distribution

Liquid or concentrated ingredients are also delivered in plastic containers (IBC), metal containers (drums), or small drums (jerrycans). For each of these containers, solutions are created for their safe handling, emptying, and product recovery. Quantity and variety form the basis for the design of customized, flexible, and automatic systems.

Distribution is carried out through mechanical systems (augers and conveyors), hydraulic systems (pumping systems), or pneumatic systems (compressors, dryers, separators), depending on the product nature and distances involved.

→ Explore the full range of products

Continuous Dissolver

Continuous dissolution system for sugar or sweeteners, used for the production of base syrup (simple syrup) with constant quality and concentration. The compact design, modularity, and high level of automation of the dissolver ensure reduced production costs in terms of energy consumption, product waste, and required space.

Models are available for both hot and cold processes, depending on the sugar characteristics in terms of size, color, and contamination. The available models meet flow rates ranging from 3 to 40 m³/h and concentrations up to 80°Bx.



Decolorization Treatment

Sugar syrup clarification is achieved through activated carbon treatment and subsequent filtration of the product using filters or diatomaceous earth.

Our complete solution includes:

- Heat exchanger
- · Activated carbon preparation and dosing tank
- Reaction tank
- · Diatomaceous earth filters for carbon removal

The systems are available in continuous or batch configurations, with different levels of automation, and for capacities up to 40 m³/h and multiples.

→ Explore the full range of products

DOSING AND MIXING





FILTRATION SOLUTIONS





Filtration

Based on the beverage to be treated, Omnia Technologies offers the following types of filters:

- Crossflow filters with inorganic membranes (ceramic)
- Tangential filters with organic membranes
- Plate filters
- Diatomaceous earth filters
- Vacuum filters
- Bag filters
- Cartridge filters
- Lenticular filters

This filters can be used for the following applications:

- Separation
- Clarification
- Microfiltration
- Ultrafiltration
- Nanofiltration





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Dosage and mixing

Depending on the nature of the product, the dosing is controlled through automatic systems consisting of various types of valves (mix-proof, modulating, etc.), weighing systems (load cells), or inline instruments for measuring flowrate, conductivity, Bx degree, etc.

In-Line Blenders

Continuous dosing and mixing system for up to 10 different ingredients, aimed to produce flavored syrup or finished beverage. Equipped with electronic control systems and automatic regulation elements, it ensures the exact mix according to the specific recipe. Precision and reliability are two of the most important characteristics of this high-capacity continuous in-line mixing unit, operating efficiently and homogeneously. The high technological content and high level of automation contribute to minimizing production costs.

Carbonation Units

Complete system for the carbonation of water, wine, and various beverages. The product is cooled using plate heat exchangers and then mixed with gas, dosed, and proportioned through electronic instruments and modulating valves that control and guarantee accuracy. The CO_2 infused product is collected in a pressurized container, previously saturated with carbon dioxide. An optional deaeration phase, typical for water, is performed in a specific vacuum tank.

Premix

The premix system is used to prepare carbonated beverages by mixing the final syrup with deaerated water, followed by carbonation. With a solid structure and high-quality components, the system ensures maximum process control and final result, with the ability to select different carbonation levels. The process stages are as follows: deaeration of water, dosing/mixing of water/syrup, carbonation, and transfer to the storage tank. Ease of use is guaranteed by a PLC with a touchscreen, while the high precision of water/syrup dosing is controlled by the electronic mixing unit with a dual flowmeter.





THERMAL TREATMENT

Mixer-Pasto-Carbo

This is a hybrid machine thatallows the mixing of two or more components: the pasteurization of the mixed beverage and the dosing of CO_2 to obtain the final product. It is widely used in applications where multiple product types need to be offered. The advantage is performing all operations inline and managing them separately with the same machine.

It can be configured by the user in different operating modes such as:

- · Premix for producing carbonated soft drinks;
- Mixer-Pasto for producing tea;
- Deaerator-Carbonator for mineral water;
- Pasteurizer for producing juices or nectars;
- High gravity for beer and/or juices.

The Mixer-Pasto-Carbo units are built on skid, with a compact configuration and are all equipped with a PLC for selecting working recipes.

→ Explore the full range of products



Deaeration

Using deaerated water is very important in beverage production, as the removal of oxygen helps meeting the quality and preservation requirements of the beverage itself.

Depending on the target residual oxygen content, the system can be proposed in hot or cold configurations, single or double stage via vacuum, achieving residual oxygen levels down to 30 ppb.

Water deaeration systems in beverage production can be tailored to meet the needs of any plant and any type of beverage being produced.

The systems are customized based on the required ppb limits and the type of beverage being produced.

THERMAL TREATMENT

Beverage catalog





Flash Pasteurizers (Plate or Tubular)

Pasteurization systems for syrups, fruit juices, and a wide range of beverages. Depending on the filling technology (hot, cold, aseptic, or ultraclean), product viscosity and fiber content, these systems are built with plate or multi-tube tubular heat exchangers, or single-tube annular space.

Made in stainless steel, they are equipped with instrumentation to visualize and record all necessary parameters to ensure efficiency, quality, and product longevity, thanks to high levels of automation.

Easy to install, designed for maximum cleaning efficiency, the components and construction of the pasteurizers guarantee the highest hygiene standards. Variable flowrates allow the system to adapt to the instantaneous speed of the filling line.

UHT Sterilizer (Plate or Tubular)

The new series of UHT systems is designed to achieve the highest level of reliability, flexibility, and safety, thanks to strengths such as:

- Very high automation level while maintaining a user-friendly interface;
- Gentle thermal treatment to preserve product quality;
- Long production autonomy;
- Capability to sterilize products containing pulp and particles thanks to the specially designed tubular heat exchanger;
- High-performance heat recovery system;
- Direct or indirect steam injection system.

The heat exchanger can be supplied as a plate or tubular model, depending on the type of product to be treated.

SANITIZATION

BLOWERS





CIP

CIP (Cleaning In Place) systems are used for cleaning production units in the food and beverage industry (fruit juices, dairy products, pharmaceuticals and any facility where high hygiene and cleanliness standards are required).

Available in manual or automatic versions, CIP systems allow the preparation of cleaning solutions and complete automatic management of cleaning cycles for various devices. The automatic versions are equipped with PLCs and dedicated software, as well as a touchscreen for intuitive use.

It is possible to store recipes and select numerous parameters (type of cleaning, temperature, washing and rinsing times, concentrations of acid/ alkaline solutions, etc.), ensuring absolute precision in meeting the specified requirements.

→ Explore the full range of products

FILLERS



BLOWERS-FILLERS-CAPPERS

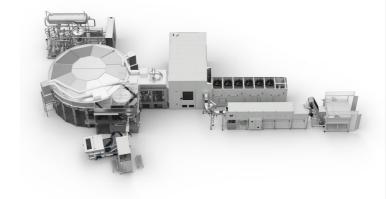


Blowers

Our long experience in the design and installation of high-performance blowers allows us to offer the market a wide range of machines for medium to high production. Quality, small footprint and automatic management systems make our range of blowers the ideal solution to meet all the requirements of a modern bottling line.

- High performance, flexible formats, hygiene and safety, low running and maintenance costs
- Up to 3 litres
- 3 to 12 litres
- R-PET compatible
- Double cavity two bottles in the same mould and double production speed
- Easy changeover
- Accessibility





Fillers

Thanks to our extensive expertise in designing and installing high-precision filling systems, we provide the market with a diverse selection of machines tailored for medium to high production needs combining superior quality, compact design and advanced automation.

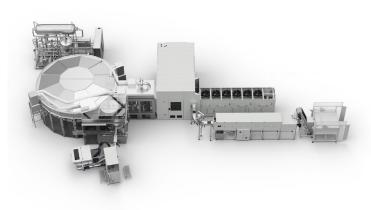
- High performance, maximum flexibility, hygiene and safety, low running and maintenance costs
- For bottles (glass, PET, aluminum) and cans
- For still products
- For carbonated products
- Integrated mixer
- Continuous cap supply
- Electronic capper
- Multiple packaging
- All settings via HMI

→ Explore the full range of products

Blowers, fillers and cappers

With our extensive experience in designing and installing high-efficiency blowers and fillers, we have developed a premium integrated system that seamlessly combines the best characteristics of both technologies.

- Up to 3 litres for still and carbonated products
- 3 to 12 lires for still products
- For still products
- For carbonated products
- R-PET compatible
- Double cavity
- Integrated mixer
- Continuous cap supply
- Electronic capper
- Multiple packaging
- All settings via HMI
- Integrated solution (blowing-filling-capping)



Blowers, fillers, cappers and labellers

BloDecoFill is the integrated platform for carbonated or non-carbonated products that combines a blower, a filler, a capper and a labeller in a single solution. It features a compact and ergonomic design that guarantees efficiency, sustainability and low operating and maintenance costs.

- Up to 3 litres for still and carbonated products
- For still products
- For carbonated products
- R-PET compatible
- Double cavity
- Integrated mixer
- Continuous cap supply
- Electronic capper
- Multiple packaging
- All settings via HMI
- Integrated solution (blowing-filling-cappinglabelling)

→ Explore the full range of products

THERMAL TREATMENT







Pasteurization Tunnel

Tunnels are designed to ensure proper thermal treatment for products that are already filled in containers of various sizes and capacities. Tunnels are monoblock structures for smaller plants, and modular configurations for larger installations. They can be offered with:

- Pasteurization Tunnel for beer, juices, wines, and preserves treatment;
- Cooling Tunnel for lowering the temperature of hot-filled products (Hot Fill);

Heating Tunnel to adjust the temperature of containers filled at low temperatures (typically used for sparkling wines or soft drinks).

Pasteurization Tunnels are composed by:

- Self-supporting structure, containing the process tanks and distribution piping is made of stainless steel, with single or multi-level configurations for larger surface areas.
- Roofs, easily removable for maintenance operations.
- Inclined tanks, along with rectangular manholes and removable double pre-filters protecting the pumps, to facilitate emptying, cleaning of the tanks, and circulation pumps.
- High-strength synthetic transport belt; stainless steel or "Pellegrino Step" type, available upon request.
- Recording valves, heat exchangers, circulation pumps, and gear motors are positioned externally on the side of the tunnel for easier maintenance and plant operation.
- Special nozzles requiring low head pressures to assure high energy efficiency, also guaranteed by thermal recovery from the water contained in the inertial tanks.
- Integrated PLC with SCADA system and TELESERVICE for selecting infinite production recipes, recording process data, and quickly addressing any anomalies.
- Automatic Pasteurization Unit Control and Cooling/Water Management System available upon request.

 (\rightarrow) Explore the full range of products

LABELLERS



Labellers

The wide range of labellers we offer can meet all the requirements of a modern bottling and packaging line. Our long experience in the field enables us to offer the market highly reliable machines with high application flexibility.

- Wide range of medium and high speed labellers
- Roll-fed, cold glue, self adhesive, hot melt
- For cylindrical and shaped containers (glass and plastic)
- Camera vision system
- Zero backlash
- Settings set-up via HMI
- Full servo driven bottle plates
- Integrated coders
- Flexibility
- Ergonomic design

→ Explore the full range of products

SECONDARY PACKAGING



HANDLE APPLICATORS

SHRINKWRAPPERS



Shrinkwrappers

With over 20 years of expertise in manufacturing high-performance shrink wrappers, we deliver high-tech solutions designed for efficiency and reliability. Our models can be customized with the latest 4.0 independent double air flow oven, an automatic film changeover system, and corrugated cardboard layer automatic feeding systems.

- High speed shrinkwrappers
- Single, double, triple lane
- Film only, film + pad, film + tray, tray only
- Up to 120 packs per min for each lane
- New oven 4.0: low energy consumption & better quality of the packs
- Automatic film changeover
- No lubrication
- Suitable for recycled film





Secondary packaging

Omnia Technologies' secondary packaging range includes high-performance wrap-around case packers, tray packers, and robotic solutions. Designed for efficiency and flexibility, these systems ensure secure, high-speed packaging, seamless integration, and easy format changeovers, meeting the demands of modern production lines.

- Continuous trayformers
- Trayfomers for large bottles with integrated palletising system
- End load cartoning machines
- Wrap-arounds
- Machines for multipack (elastic sleeve, no glue)

→ Explore the full range of products

Handle applicators

Our handle applicators are designed for maximum efficiency and flexibility in packaging operations. Their standout feature is the innovative electronic spacing system which eliminates the need for traditional spacing worm screws.

This advanced technology preserves the integrity of the packs and simplifies format changeover operations, reducing downtime and ensuring seamless adaptability to different pack sizes.

- Single, double, triple lane
- Models: pneumatic, mechanic, electronic
- Up to 100 packs/min/lane
- Electronic spacing system
- Can manage multiple type of handles
- Quick format changeover

MULTIFUNCTION ROBOTS



Multifunction robots

In order to meet the needs of individual customers, we are able to use various robotic systems belonging to the main international brands.

Thanks to the robotic application, it is possible to create machines with different possibilities of use, the characteristics of which are flexibility, ease of maintenance, ergonomics, speed of execution and high automation.

- Cartoning robots
- Craters and decraters
- Pal & crating robots (in one machine)
- Depal & decrating robots (in one machine)
- · Automatic gripping head changeover system

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DEPALLETISERS



PALLET STRETCHWRAPPERS

PALLETISERS



Palletisers

We offer a wide range of palletizing solutions tailored to meet the diverse needs of the packaging industry. Our expertise in palletizing technology includes traditional palletizers, robotic palletizing systems and hybrid solutions that combine the best of both approaches. These machines are designed for high efficiency, flexibility, and adaptability to various industries, including food, beverage, pet food and other industrial sectors.

- High level, low level, robotic (high/low)
- Opening platform
- Models: bomb-bay door, "rake", tulips, magnetic, vacuum, perimetric pads
- Twisterbox system
- Low tco
- Low maintenance
- Modularity and customization



Depalletisers

Among its flagship solutions, Omnia Technologies offers a wide range of depalletizers with high performance, designed to meet the needs of various industries, including food, pet-food, mineral water, soft drinks, csd, dairy, beer & beverage, wine, chemical, tissue and pharmaceutical.

- High level, low level, robotic (high/low)
- Models: "rake", tulips, magnetic, vacuum, perimetric pads
- Product stability
- Containing cabin
- Selective warehousing of raw material
- Low tco
- Low maintenance
- Modularity and customization

 \ominus Explore the full range of products

Pallet stretchwrappers

Discover our cutting-edge range of pallet stretch wrappers, featuring rotating pallet and rotating ring models designed for superior efficiency and automation. Engineered for high-performance pallet wrapping they can be equipped with automatic pre-stretching changeover systems for uninterrupted productivity.

- Models: fixed pallet, rotating pallet, rotating pallet (low speed), rotating pallet (kraft paper)
- Up to 160 pallet/hr
- >400% prestretching value
- 500mm/750mm/1.000mm film height
- External welding unit
- Automatic reel changeover
- Roping system
- Anti-dust system (top cover)
- Waterproof system
- Kraft paper application "go green" solutions



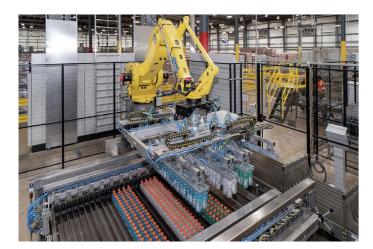
Conveying systems

In our factories, we manufacture the conveyor belts and conveying systems that seamlessly integrate into our production lines. We think that a system works well when the connections between machines are efficient and reliable. We focus on making top-notch conveying systems that improve performance and boost productivity for the whole operation.

- For pet bottles, glass bottles, cans, jars, carton boxes, plastic crates, shrink packs, clusters & multipacks, kegs, pallets, and more
- Conveyors
- Accumulation tables
- Aligners
- Bottle/pack elevators/lowerators
- Pallet elevators
- Low energy consumption
- Automatic format changeover

\bigcirc Explore the full range of products

REPACKING SOLUTIONS



Repacking solutions

We are able to supply complete "turnkey" repacking lines, but also "in-line" systems that can be integrated into existing production lines. All our machines can make packs consisting of mixed flavours (rainbow pack).

- High speed complete repacking lines
- Highly automated
- Type of output:
 - Rainbow shrinkpacks (with or without tray)
- Rainbow multipacks
- Rainbow duopack (elastic sleeve, no glue)
- Rainbow pallet
- Rainbow trays (loose bottles or duopack)

 (\rightarrow) Explore the full range of products



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