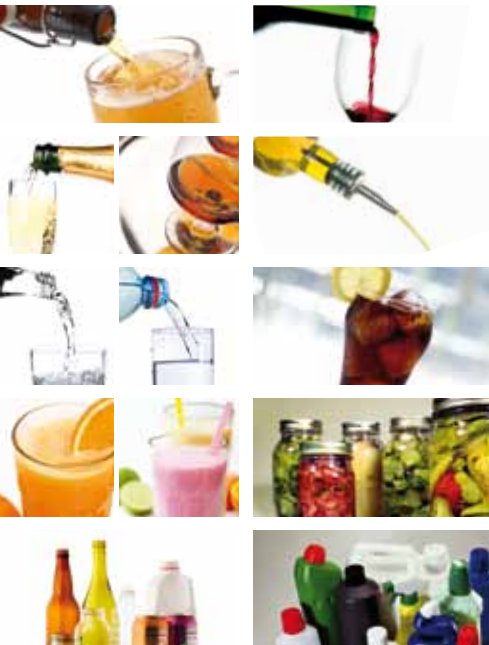


FRAMAX

BOTTLING & PACKAGING TECHNOLOGIES

your Partner in the world

MADE IN ITALY



Beverage Filling Technology

Beverage Production & Process Technologies



Food Packaging Technologies

Conveyng, Handling, Packaging & Automation

your Partner in the world

Who we are

FRAMAX specializes in the supply of machinery and complete "Turn Key" production lines for the bottling and packaging industry, covering primarily the beverage field but also catering for special needs in the food and chemical sectors.



Our main objective is to provide Customers promptly with a custom-made solution, specifically designed to protect and guarantee the quality of the finished product with the use of the highest and most up-to date technology.

Framax can supply filling lines to suit a wide range of products such as mineral water, carbonated soft drinks, wine, beer, edible oils, mixed alcoholic beverages, liqueurs, fruit juices, sauces etc., into traditional or modern packaging, such as bottles made of Pet, Pen, Glass, HDPE, cans, bag-in box-etc.

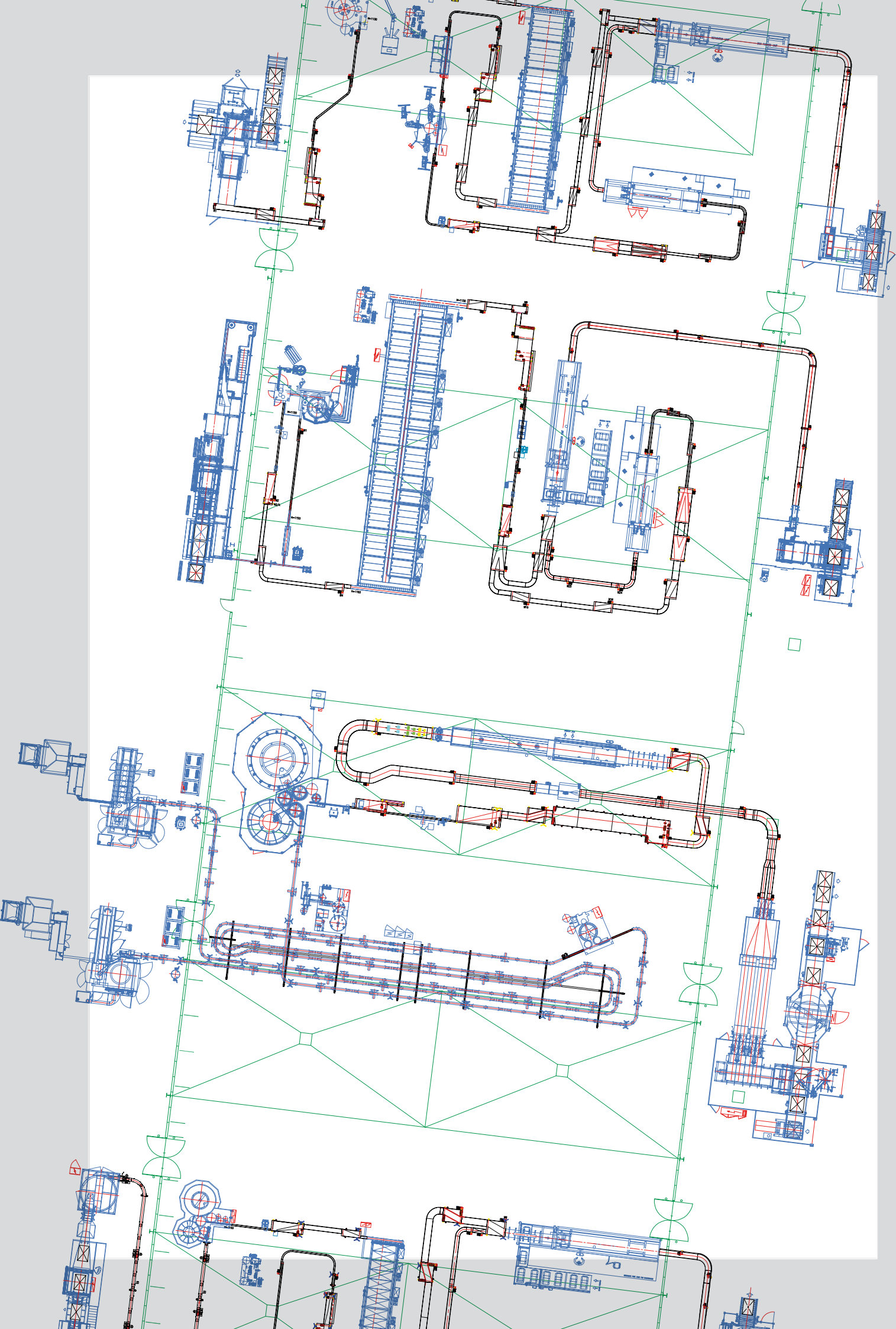
The key to our success is the "know how" gained in over 30 years of experience in this industry and the ability to supply equipment performance, competitive pricing and efficiency of after sale service and support.

Framax s.r.l.

Project planning & engineering

The main key to our success is the capability to offer customers a complete tailor-made solution according to specific technical requirements, starting from the initial budgetary proposal to the final project plan designed to fit within the space availability but also to fit the required budget, always keeping in mind the importance of looking after the product to be packaged.

Primary objective is in fact to care about "THE PRODUCT", making sure that its original characteristics are not altered throughout the bottling & packaging process.





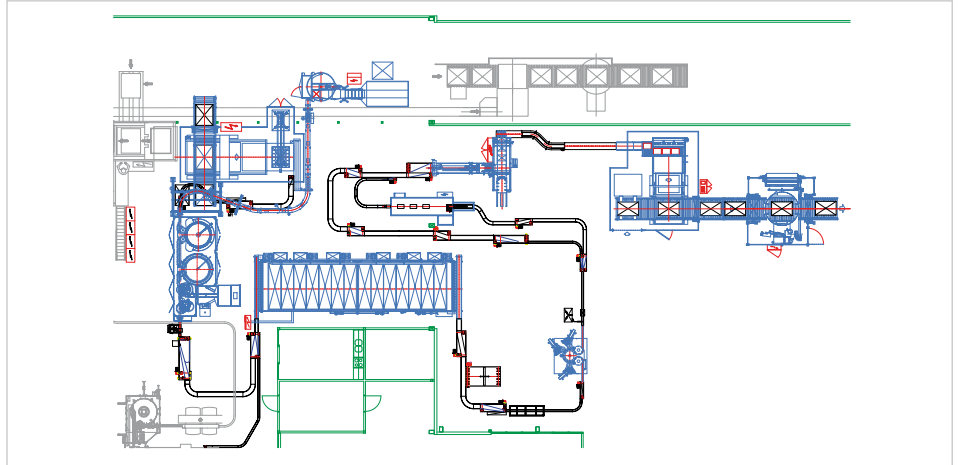
Beverage Filling Technologies

Beer



Whilst keeping in mind the importance of caring about the product sensitivity to external contamination, Framax Beer filling technology utilizes the traditional isobaric multi-pre-evacuation system for glass or aluminium bottles and specific filling systems designed to fill beer into PET, cans and kegs.

Depending on the beer type and customer needs the supply may include product treatment equipment such as flavour mixing, flash or tunnel pasteurisation, followed by the preferred labelling solution, packaging into cluster packs, cartons, shrink film and finally palletising.

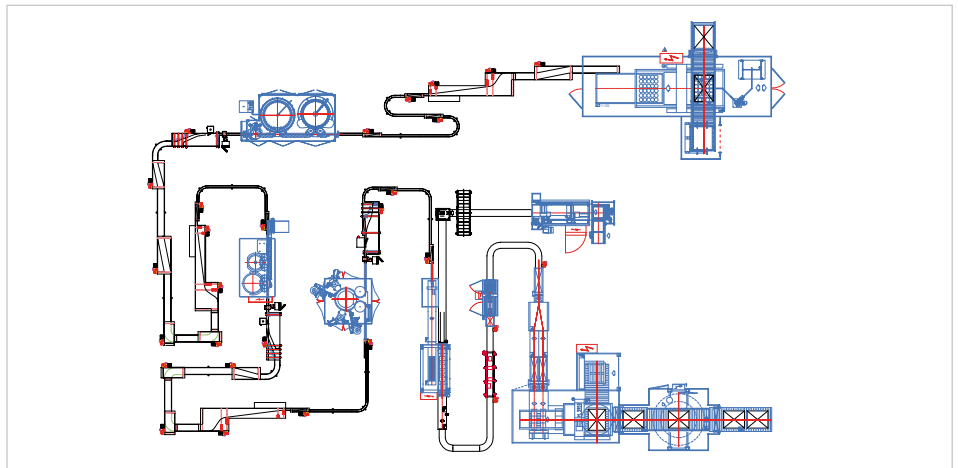


Wine (flat & sparkling) Spirits & Liqueurs

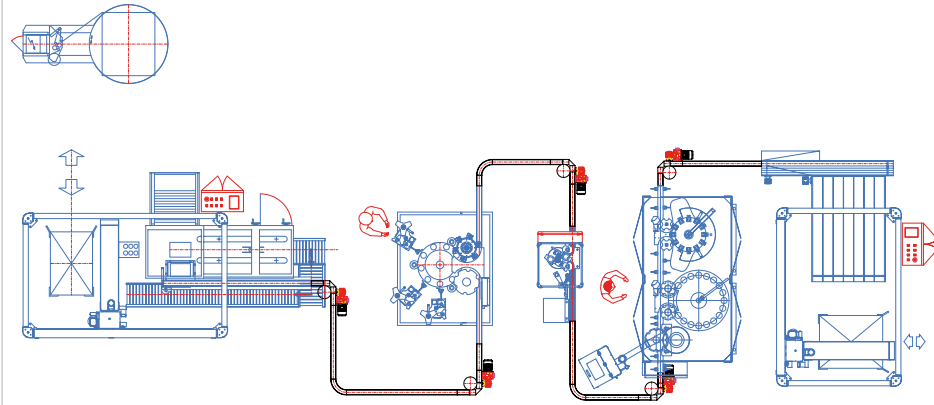


Filling systems are typically low vacuum-gravity for flat wines & counter-pressure filling for both flat and sparkling wines, closures with natural or synthetic corks, screw caps, mushroom corks & wire-hoods, depending on the specific packaging requirements. The product is thoroughly protected by vacuum air removal and inert gas saturation of the empty bottles as well as the caps on the bottle neck headspace.

An extensive range of filling valve designs are available according to the specific product characteristics, filling system, bottle types and customer requirements, thus ensuring product protection and efficiency.



Beverage Filling Technologies

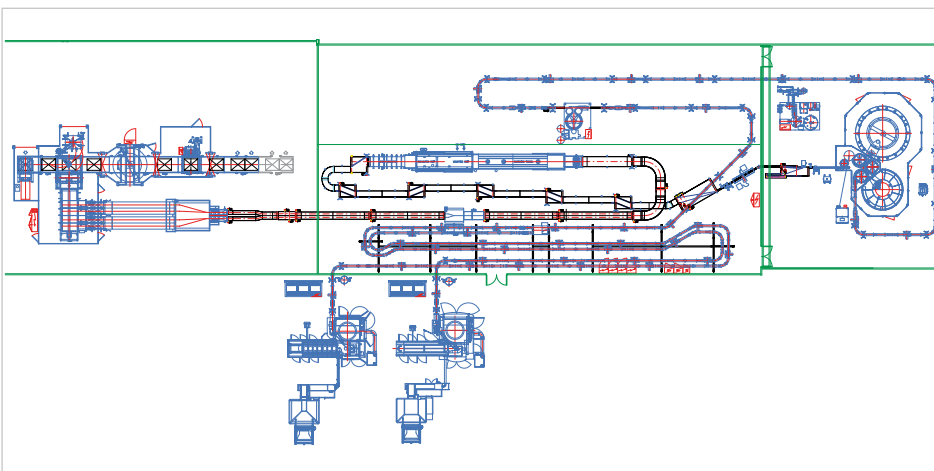


Edible oils (olive oil, seed oil, etc.)



A variety of filling systems for dense products such as edible oils are available for filling various types of containers from glass bottles to PET and cans, ranging from the high vacuum filling system to positive pressure filling, volumetric piston filling, net weight filling and flowmeter system.

Such versatility enables us to supply filling lines capable of processing a vast range of different bottle designs commonly used for "boutique" olive oils, as well as the traditional packaging. Framax can supply customers with a tailor made solution from small semiautomatic equipment to the high speed bottling and packaging lines.



Carbonated and flat mineral water



Complete lines for PET bottles starting from blowmoulding, neck handling systems, filling with counter-pressure, gravity or inductive flowmeter system (non contact filling), with various options available to ensure the maximum product safety and "Ultra Clean" environment such as Laminar flow Hepa filtration, empty bottle sterilization, Ultra-Violet sterilisation of the caps and bottle necks. Alternative bottle feeding systems such as unscrambling and PET de-palletising are provided depending on the requirements and line speed. Different line designs are supplied to suit water bottling into Glass bottles or combine both glass and PET bottle processing by the same production line. Complete solutions include also auxiliary equipment, for example CIP plants, water treatment, flavour dosing equipment, etc.

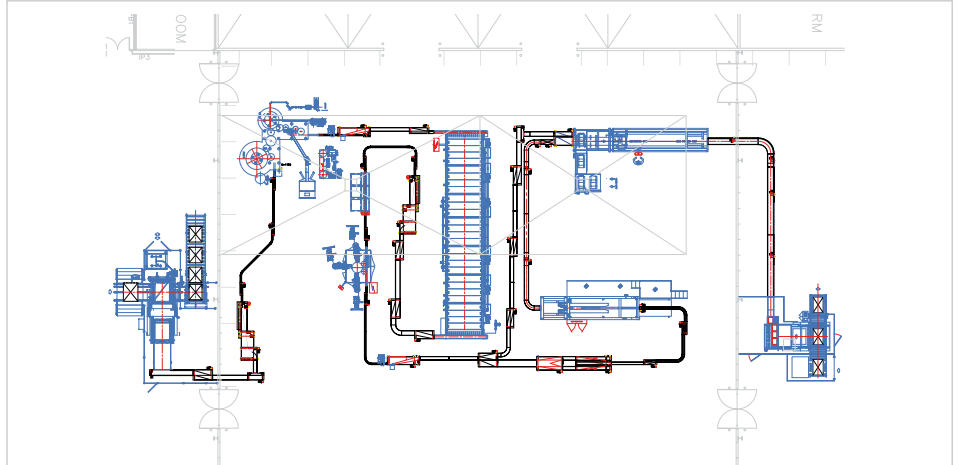


Beverage Filling Technologies

Soft Drinks



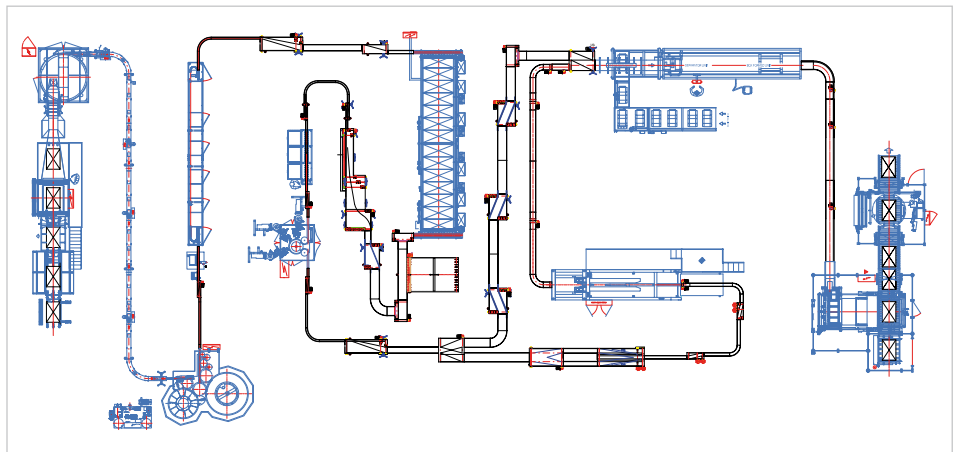
Complete projects including syrup production, high precision flavour dosing & mixing systems for the production of soft drinks, alcoholic mix beverages, energy drinks and similar products packaged into PET, Glass & Cans. Framax supplies customized solutions to cater for each of the above mentioned product process requirements, such as counter-pressure filling, pasteurising or warming, labelling using an extensive range of the most modern and cost saving labelling techniques, followed by packaging loose or clustered packs into boxes or shrink wrapped bundles, etc.



Hot Fill Sport Drinks and Teas

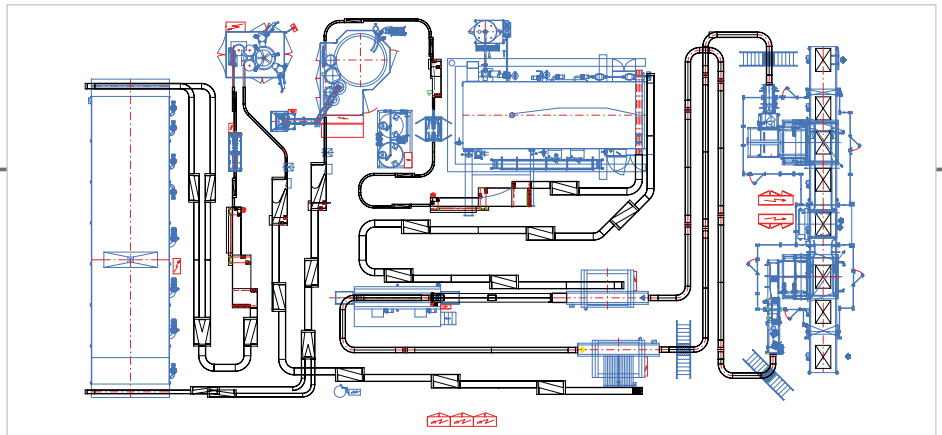


The hot fill system typically used for various types of beverages such as fruit juice, isotonic sport drinks and teas, utilizes product recycling between filler and flash pasteuriser or external recycling tank, and special design filling valves to enable keeping a constant product temperature during the filling process. Product is filled into either Heat-Set PET, glass and heat resistant cans. Depending on the requirements, the line is provided with bottle turnover system for cap sterilisation followed by a cooling or pasteurising tunnel. All contact parts and circuits are designed to enable a thorough CIP (Cleaning In Place) process. The Hot Filling line is of course suitable also for cold fill products.



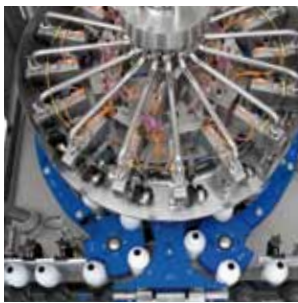
Beverage Filling Technologies

Returnable Bottles



The bottling lines designed for returnable bottles are typically composed of crate depalletiser, de-crater, single or double end bottle washer, crate washer, various types of filling technologies, wet glue labelling, pasteurisation process and finally crate filling and crate palletising.

Depending on the specific requirements, other special equipment is included in the supply, such as new bottle depalettizing to integrate unreturned or damaged rejected bottles, sleeve labelling, de-capsulers, de-sleevers, screw cap removing and of course high quality inspection equipment for quality control.



Dairy products and fresh fruit juices with and without fibres

"Ultra clean" technology for cold filling of fresh milk, yoghurt and fresh juices using electronic flow-meter or weight filling systems, which ensure the maximum product protection suitable for filling

fresh products and those requiring Extended Shelf Life. Depending on the requirements, the process includes sterilization of the containers through the use of peracetic acid or hydrogen peroxide, an intermediate holding time, sterile water rinsing, non contact filling and closing with previously sterilized closures. All under protected environment with laminar flow Hepa filtration.



Classic Method Sparkling Wine

Consisting in the production of sparkling wine by means of wine re-fermentation through the introduction of selected yeasts and sugar. In this way the wine acquires the traditional natural carbonation produced by the second fermentation. After a rest period the bottles are placed up side down on special stands for the "remuage" phase, where the bottles continuous rotation allows the exhausted yeast to

settle into the bottle neck. Framax supplies equipment ranging from the simplest semiautomatic machines to fully automatic complete lines to carry out the operations of neck freezing, disgorging, dosing & levelling, as well as programmable automatic "remuage" systems.

Beverage Production & Process Technologies



- Syrup plants
- Premix units for soft drinks and carbonated soft drinks preparation
- Mineral water carbonating system
- Blending equipment
- Deaeration systems
- Homogenizing
- Flash pasteurisation
- CIP (cleaning-in-place) and SIP (sanitizing-in-place) systems
- Disinfecting solutions preparation
- UV-light (ultraviolet) disinfecting systems
- Mineralization and aroma dosing plants
- Water ozonising plants and ozone generators
- Sand and active carbon filtering systems
- Membrane filtering plants (reverse osmosis)
- Cartridge filtering systems
- Processing equipment for food and beverage industry
- Special custom-made applications

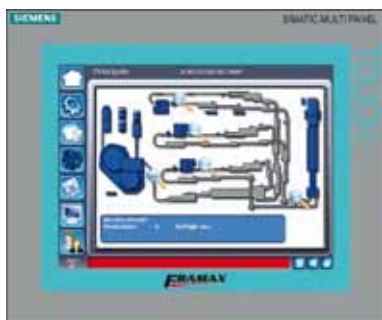
Conveying, Handling, Packaging & Automation

Nowadays modern automatic plants need an optimisation of the workflow, reducing labour and occupied floor space.

Our "Layout Design Team" is specialised in finding the suitable solution which allows to fit the production line within the required space, but still guaranteeing maximum efficiency, by reducing the line stops to the minimum.

Line control automation is programmed according to each specific product and packaging configuration, providing coordinated interaction between each system component to ensure maximum efficiency even in case of packaging several different types of products.

Automation & Control



Our production lines start from the empty container line feeding right through to package conveyors at the end of the line, and more specifically:

- Single and multilane conveyors
- Elevators and lowerators, to manipulate bottles or packages on different levels
- Loose Product lane dividing units for low and high speed lines
- Packed product dividers
- Handling & conveying of boxes, clusters and shrink wrapped products
- Dry and wet Lubrication systems
- Cable ducts systems
- Various types of buffer systems including bi-directional tables & dynamic accumulation systems ensuring the recovery of possible machine downtimes
- Management and automation systems for bottling plants
- Power distribution boards

All above features allow for safe and gentle conveyance of the products throughout the complete bottling and packaging process.





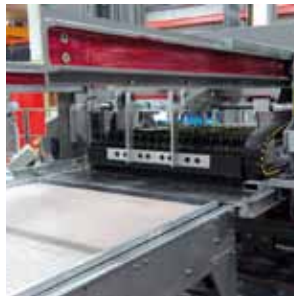
Secondary packaging

An important process common to most products in the food and beverage industries is packing containers into clusters, crates, shrink wrapped bundles or cartons.

Specific packing machines are supplied to suit the numerous shapes and sizes of products to be packed as well as the different packaging configurations.

A few examples:

- Multiple head Pick & Place systems with carton forming and sealing with tape or hot melt glue
- Cluster packaging machines
- Shrink wrap packaging machines with or without tray (single or twin stack)
- Wrap around packers
- Combination machines for maximum flexibility (pad + film - film only - tray only, tray + film - wrap around carton)



Depallettising and Pallettising systems

- Low level and high level depallettising systems using both sweep off or pick & place technology
- Unscrambling systems for plastic containers
- Low level or high level layer pallettisers with single or multiple infeed conveyors
- Semiautomatic Cartesian robot pallettising systems with pallet on the ground for small production capacities
- Anthropomorphic Robot pallettising systems offering the maximum flexibility, having up to six movement axes and therefore allowing for pallettising individual or multiple boxes, up to handling the complete layer.



Food Packaging Technologies



For the food industry our Company can supply machinery and complete lines for packaging dense sauces, pastes and solid food into various containers, such as Jars, Cans, Bottles, etc.

A few examples of product are:

- Tomato sauces
- Chopped vegetables in brine or oil
- Pickles: Gherkins, Mixed Pickles
- Chopped fruit in syrup
- Jams and marmalades
- Mayonnaise
- Sauces (Ketchup, Horseradish, Barbecue, Salad cream and other sauces in general)
- Preserves
- Ready made pasta sauces and condiments
- Mayonnaise, Mustards, Creams, Pates etc.
- Honey
- Special dense and semi-dense food products

Food packaging equipment

- Universal pad blower for empty jars, bottles and cans
- Twist blower for empty jars, bottles and cans
- Work bench for packaging vegetables by hand
- Linear vibration filler for fruit and vegetables in jars and cans & pickles
- Rotary vacuum filler for preserving liquids (oil, vinegar, brine, etc.)
- Linear gravity filler for preserving liquids (vinegar, brine, etc.)
- Rotary piston filler for dense, semi dense and liquid products (jam, tomato puree, mayonnaise, concentrated honey, fruit juice, etc.)
- Linear capper for jars and bottles using T.O., D.T.O., E.C.O., R.T.O. caps, etc.
- Washer for full jars, bottles and cans
- Pasteurisations and cooling tunnel for full jars, bottles and cans
- Storage units
- Vacuum detector and cap controller for jars and bottles





Our Services



References worldwide



Efficient on-site support

- Decades of experience in the beverage and packaging industry as well as prompt feedback and enthusiasm have matured in Framax gaining a good reputation from customers worldwide, trusting us as a reliable supplier of turn-key plants, from project planning, manufacturing, installation, start up and commissioning.

- Starting from the initial stage of the factory planning we provide customers advice to enable gaining the best efficiency in production, logistics and warehouse management.

- Commissioning is carried out for each specific product to be packaged, therefore allowing to make the necessary fine-tuning that consequently maximises overall line efficiency.

- Staff training and after sales service is also extremely important, and for this reason we have built a network of appointed representatives in several countries worldwide, who are constantly trained by our specialists in order to provide fast and effective support.

Plant installations





For additional information visit: **www.framax.com**

FRAMAX

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