



FITECO

Filling Technology

ELECTRONIC FILLING MONOBLOCKS



Technology choice

- Filling material and container
- Most suitable technology choice

Project study

ITEM 2.1-Automatic DEPALLETER, Discharging Table, Layer and top tray separator and Automatic Empty Pallet Stacker automation system.

- Analysis data of production
- Machine project choice
- Safety reference regulation
- Proposal validation



Project technical implementation

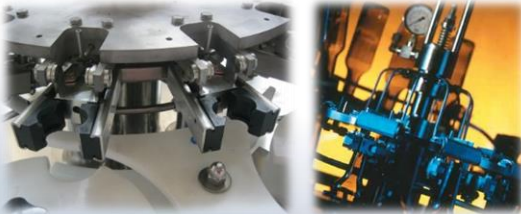
- Container feeding
- Container transport system
- Filling and capping
- Checking
- Labelling
- Packing

Proposal presentation

- Project proposal to the customer
- Discussion of the project
- Finalization

«SOME PEOPLE SEE EXISTING THINGS AND SAY: WHY?
WE ENVISION THE FUTURE AND ASK: WHY NOT?»

CONTAINER TREATMENT MACHINE FOR BOTTLES CLEANING



Infeed screw, star wheels and guides are easily exchangeable for handling different bottle sizes.

Exit star wheel is fitted with a safety device which stops rinser in case of jamming.

The rotary main frame carries a set of stainless steel bottle grippers.

Container positioning through fixed twist in stainless steel.

To accommodate different bottle sizes, the rotating main frame can be adjusted in height.

Treatment cycles regulation and treatment timing can be easily changed.

Treatments regulation can optimize products sterilization expenses.

Step 1 - Position and bottle taking.

Step 2 - Tipping.

Step 3 - Injection.

Step 4 - Dripping.

Step 5 - Bottle righting.

Step 6 - Release.



Treatment with steril air or inert gas

Rinsing machine can be equipped with a inert gas generator for the main or second treatment of the containers.

Inert gas is blown into the container to:

- evacuate the air contained
- containers dry cleaning when is not possible used liquids
- reduction the contact with the product during the filling process.

ULTRA CLEAN CONTAINER TREATMENT

Cleaning with steam (7 days ESL)

Container cleaning station with dry steam complete with heat exchanger to manage and maintaining the right temperature of sterilization.

Second treatment with inert gas to obtain:
 1° keeping the container saturated with inert gas.
 2 ° cooling the container before filling,



- container loading
- overturning up
- steam injection



Sterilization with peroxide (21 days ESL)

H₂O₂ spray device installed on the incoming star complete with skid for preparation sterilizing solution.

H₂O₂ activation section complete with hot air heating SKID for sterile air



- container loading- H2O2 spraying
- overturning up
- contact time
- activation
- drying phase
- overturning down
- unloading

Sterilization with acid (21 days ESL)

Sterilization station with peracetic acid in permanent contact, complete with preparation, recovery, and maintaining of the percentage of the product sterilization device.

Dripping station.

Rinsing station with sterile water complete of water sterilizer unit.



- container loading
- injection
- dropping phase
- dropping phase
- unloading
- overturning up
- contact time
- rinsing with steril water
- overturning down

Laminar flow hoods and HEPA filters, for each station, are positioned at the top of the safety protections.

To reach the cleanness parameters the equipment must:

- Remove dust, bacteria and aerosol from the input air with high efficiency filtration systems.
- Blow dirt generated by the production-line towards expulsion or the filters.
- Direct the flow of air according to velocities and directions calculated for the well-being for the personnel working inside the Clean Room.
- Maintain the working area under growing pressure according to the importance or the type of work which is being done.
- Maintain temperature and humidity as require.

Electronic Filler

Food

Olive oil

Juice

Dressing

Milk

Yogurt

Honey

Chemicals

Personal care

Home care

Chemical detergents



Flowmeters in accordance with different types of product,

Flow meter **managed by PLC** which allows for a quick and precise variation of quantity to be dispensed, according to the format setting by the touch panel.

Volumetric electronic filling, no contact between filling nozzle and the bottle neck.

Steam sanitification capability of the product path.

High filling precision.

Interchangeable nozzle.

No-foam and anti-drip nozzle,

Neck bottle centering device

Product storage tank complete with level control device for maintaining constant product and the management of the feed pump.

All parts that come into contact with the liquid are suitable for sanitizing with chemicals, steam or hot water.



Linear machine designed to prevent additional format change parts cost.

Made to have as point of view high versatility in the format change parts operations for reducing time of settings.

Flow meter managed by PLC which allows for a quick and precise variation of quantity to be dispensed, according to the format setting by the touch panel.

The FDP series are suitable for very foaming product.

Allows to the long pipe, the container are filled from the bottom,.

during filling the dispensers are raised proportionally following the level of the product.



Ultra Clean Filling System



Every lower part of the machine is designed to avoid the creation of any horizontal planes where waste products, cleaning products, powders can be stationed and create pollution. Safety protection designed around the working areas allows the best accessibility in case of extraordinary or ordinary maintenance. These protections are built in accordance with regulation in terms of hygiene and safety.

Fully automatic management of pump to have very precise product flow and pressure control according to the filling productivity.

Flow meter managed by PLC which allows for a quick and precise variation of quantity to be dispensed, according to the format setting by the touch panel.

Flowmeters are placed in a protected area where chemical agents cannot reach them during the washing phase.

Bottles are maintained in position towards the dispenser (fill top) by centering forks.

Filling system "no touch" allows the sanitary maintenance of the nozzles and consequently of the entire circuit of the product, avoiding contamination of the final product.

Aseptic product valves for closing the flow of product, guarantees a perfect sanitification of the inner part of the filling valve.

The nozzle are drawing and made to eliminates any turbulence ensuring to the product a filling with no foam .

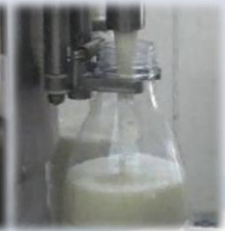
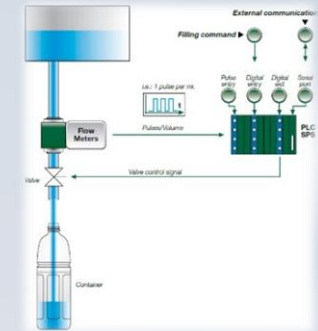
Each section of the machine is separated by panels, in order to ensure a better management of the anti-contamination filtrated airflows.

The structure and all the parts in contact with the liquid are made of stainless steel Aisi 316.

The parts in contact with the products are made of materials allowed to alimentary applications concerning the most restrictly hygiene rules.

Dummy bottles can be installed on the filler to optimize operator interventions during the automatically washing cycle with CIP.

Programmable interface to manage the feeding product system from UHT system provided by the client.



SINGLE HEAD CAPPING SYSTEM

Low production automatic capping machines are suitable for small to medium productions.

Flexibility, innovation, and technology for machines characterized by a value for money at the top of the market.

All capping machines are available in free-standing version or built in the monoblock.



ROTARY CAPPING SYSTEM

The rotary series capping machines are suitable for any kind of caps.

The machines can be completely mechanical or with electronic control with a wide range of capping heads types.

Machines are available in different sizes for medium to high production speeds.



Rotary capping machine with magnetic clutch heads and Pick & Place device suitable to apply plastic **pre-threaded** screw caps on PET, glass and PVC containers. Head with magnetic clutch, for screw caps.



Rotary capping machine with **crowning heads** with cone for permanent deformation suitable to apply crown corks, twist-crown or ring-pull on glass bottles.

Rotary capping machine suitable for application of aluminium screw **R.O.**, **R.O.P.P.**

Rotary corking machine suitable to apply natural **straight or mushroom** corks on sparkling glass bottles.



Rotary capping machine with magnetic clutch heads and Pick & Place device suitable to apply, on glass and PET bottles, **metal twist-off caps and plastic pre-threaded screw caps** with steam saturation inside bottles neck.

The caps are transferred by means of Pick & Place device.

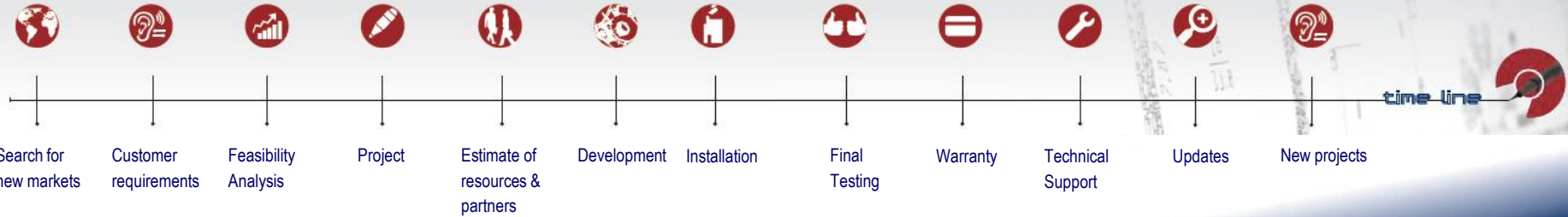
Capping machine to apply shaped screw caps by **positive grip jaw**.



Fiteco to 360°



“ Your trustworthy partner
to satisfy your ambitions ”



FITECO With over twenty years of experience in the field of bottling, automation and engineering of its employees, can guarantee a 360° support starting from the analysis of project feasibility and costs, focusing on customer requirements, through the development, the selection of the most suitable partners, to installation and testing.

The FITECO mission is to provide a high standard of engineering in food, beverage and packaging of complete plants, researching the best market solutions to satisfy customer's needs, and thanks to its versatile, dynamic and avant-garde corporate structure, can provide

filling technology



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