FITECO

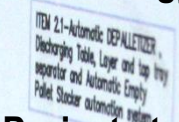
Filling Technology

ULTRA CLEAN FILLING LINE FOR DAIRY AND DELICATES PRODUCT

Products analysis

- Bottles self made
- Original product characteristic
- Final product properties

Technology choise



- Filling material composing
- Filling technology choise

Project study

- Analysis data provided
- Machines project choice
- Safety reference regulations
- Proposal validation

Project technical implementation

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

Proposal presentation

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

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
- inert gas injection
- overturning down
- unloading

Sterilization with peroxide (21 days ESL)
H_2O_2 spray device installed on the incoming star complete with skid for preparation sterilizing solution.
H_2O_2 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
- overturning up
- injection
- contact time
- dropping phase
- rinsing with steril water
- dropping phase
- overturning down
- unloading

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.

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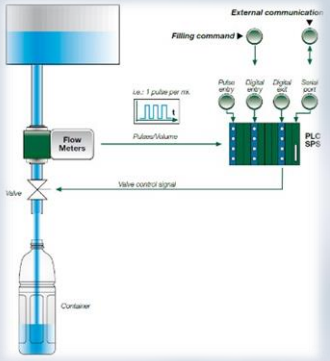
CONTAINER FILLING

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 sanification 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 restrictely 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.

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Single head capping system

Low production capping line is the line of automatic corkers produced that has always been a leader in the construction of closing systems for small to medium productions.
Flexibility, innovation, and technology for machines characterized by a value for money at the top of the market.

Uv lamp for decontamination before capping station.

Automatic caps sterilizer.
Mechanical caps feeder.
Rinsing system in double treatment with injection of sterilant and hot air or sterile water final treatment
Machine manufactured in AISI 316 stainless steel and high density polyethylene.
All parts in contact with product are made in stainless steel AISI 316.
Fixed nozzles in stainless steel.
Movement synchronized and transmitted to gears by main motor.
Standard product filter with valve in AISI 316.
Machine suitable to the connection with container sterilizer preparation group.

Rotary capping system

The rotary series capping machines are suitable for handling any kind of screw or press-on caps.
The machines are completely mechanical 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 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**.

Machine fully dedicated to foil capping and sealing technology and have been at the forefront of many sealing innovations.
Designed for the rigours of the harsh dairy environments,
Servo-driven foil feed
Automatic edge guidance systems
Turnover tab assemblies
Dry foil tooling for hygienic production
Cap sterilisation systems
Sealing turrets are available with both conduction and positive contact induction sealing head designs.

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Fiteco to 360°

"Your trustworthy partner to satisfy your ambitions"

time line

- Search for new markets
- Customer requirements
- Feasibility Analysis
- Project
- Estimate of resources & partners
- Development
- Installation
- Final Testing
- Warranty
- Technical Support
- Updates
- New projects

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.

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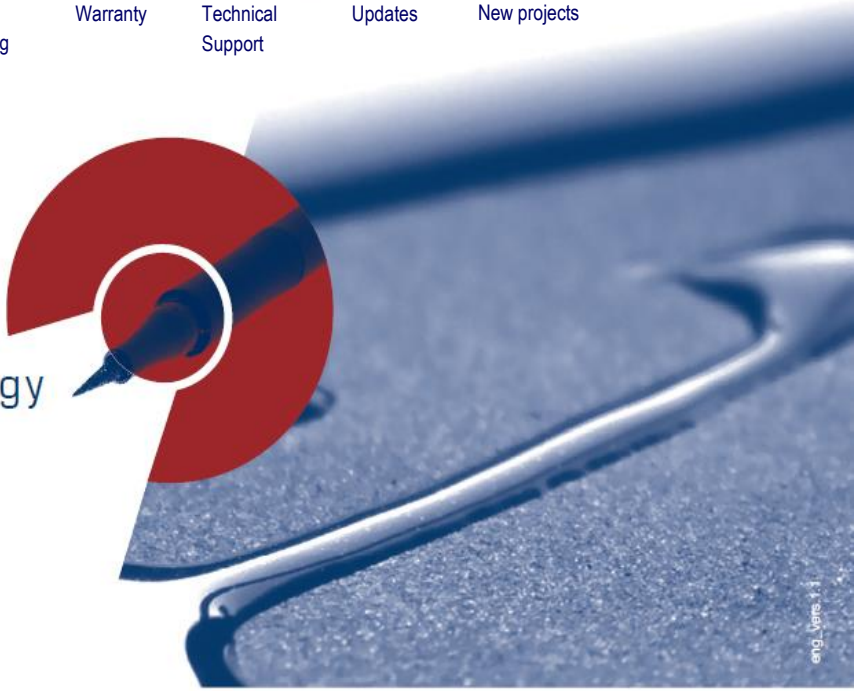

The FITECO mission is to provide a high standard of engineering in food, beverage and packaging of complete plants, researching the best market solutions to satisfy customer's needs, and thanks to its versatile, dynamic and avant-garde corporate structure, can provide

Fi.te.co srl | via Razzaboni, 130/G | 41122 Modena Italy
T. +39 059 450282 | F. +39 059 454970 | info@fiteco.it

www.fiteco.it

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