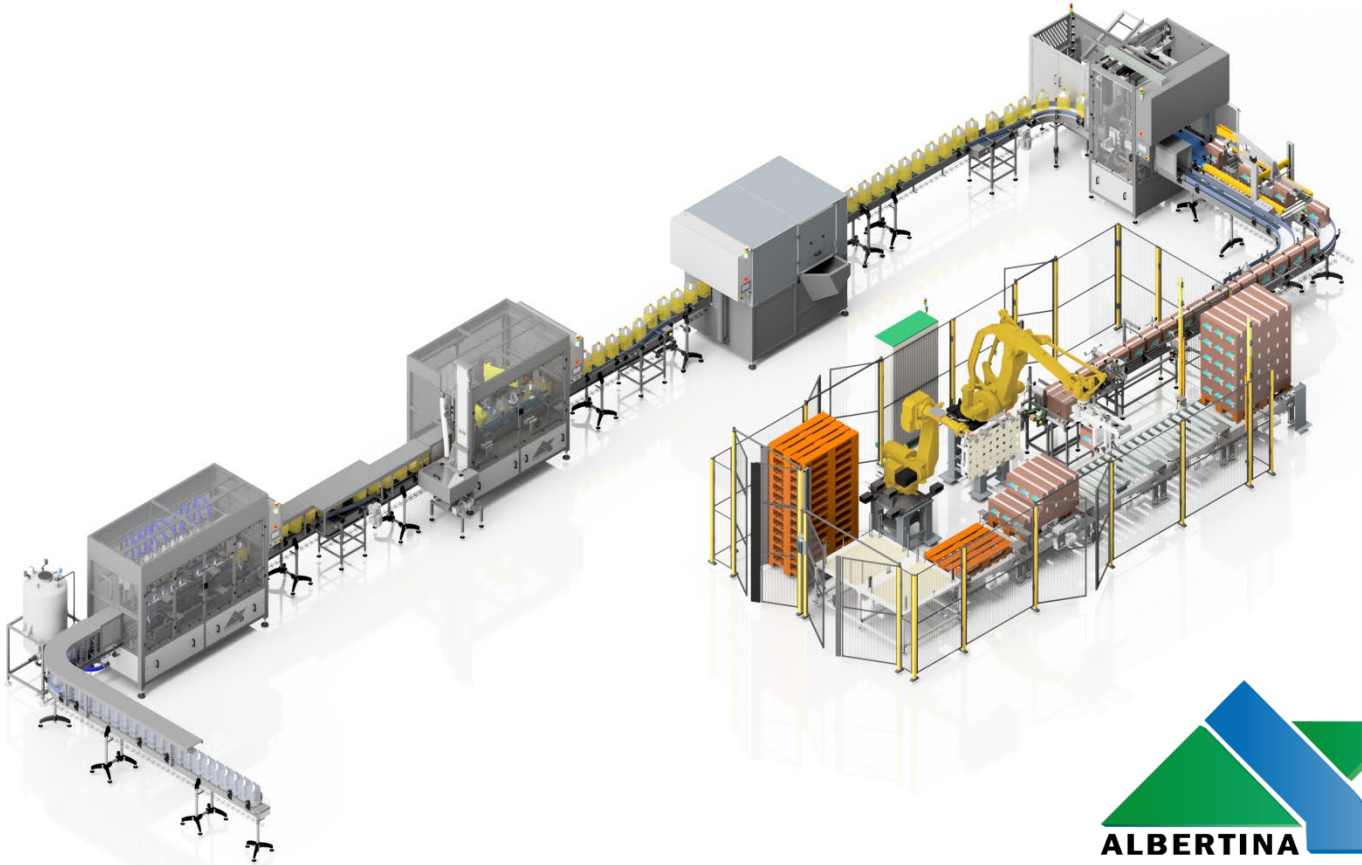
ALBERTINA Machinery s.r.o.

Automation Machinery Manufacturing



ALBERTINA

FULFILLING
YOUR IDEAS

About us

ALBERTINA is an international group of companies producing machines and complete filling lines. The group is based in the Czech Republic, Germany and Poland. This international network enables systematic work in these markets, both in terms of marketing as well as perfect technical and service support. In other countries, a network of dealerships provides service and sales support.

Albertina **machines are sold in most countries** in Europe, the U.S.A., North Africa, South Africa, the Middle East, the South East Asia region and Australia. In addition to new machine development, the company also provides complete engineering and an integration of machines into existing customer lines and facilities, including design of machine placement, connection to power and product feeds, and complete site approval.

Manufacture

- Osek, Czech Republic
- Bzová, Czech Republic
- Hořovice, Czech Republic
- Hradec Králové, Czech Republic
- Podolí, Czech Republic

Total: 4.850m²

Representation

WORLD

EUROPE

BUSINESS OFFICES

SALES REPRESENTATION

PRODUCTION

SUPPLIED MACHINES

Divisions

- Our **first division** concentrates on the production of linear **filling machines** and **capping machines**, as well as **labelling machines** or **complete production lines.**
- The **second division** is focused on the production of **filling and capping monoblocks** for filling liquid and bulk substances or for **filling tubes**.
- The **third division** is responsible for the production of **automatic bottle erectors and cap orientators**. It produces, for example, rotary orientators, vibratory feeders and rails, and automatic unscramblers.
- The **fourth division** takes care of the development and implementation of **robotic workstations** in cooperation with Fanuc.
- The **fifth division** is a state-of-the-art center dedicated to the **production of components** on CNC machines, including a waterjet and other amenities.

Applications

We are a group of innovative companies engaged in the **design, manufacture and integration** of equipment for the automation of **filling and packaging lines.** Our machines can fully automate many production processes and minimize the need for manual labor. They effectively reduce the number of operators needed to operate the line. Albertina machines are used in the following fields:

Food

- ❑ Jams, honey
- ❑ Ketchup and sauces
- ❑ Mayoneze
- ❑ Syrups
- ❑ Dairy products
- ❑ Cooking and olive oils

Pharma

- ❑ Ointments
- ❑ Creams
- ❑ Powders
- ❑ Liquid medicines

Cleaning

- ❑ Floor cleaners
- ❑ Dishwashers
- ❑ Stain removers
- ❑ Fabric softeners

Cosmetics

- ❑ Soaps
- ❑ Shampoos
- ❑ Shower gels
- ❑ Body lotions

Chemicals

- ❑ Paints, solvents
- ❑ Hypochlorites and acids
- ❑ Agrochemicals
- ❑ Adhesives

Engine oil

- ❑ Motor oils
- ❑ Machine oils
- ❑ Vaseline
- ❑ Industrial lubricants

Products

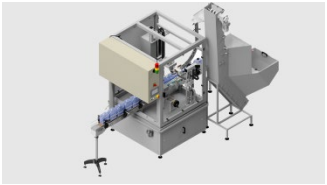
Efforts to maximize production efficiency led to the creation of **separate specialized production units**, where individual types of machines (labeling machines, linear filling machines, filling monoblocks and tubing machines) are mass-produced. Thanks to specialization, an optimum quality/price ratio is achieved.

In addition to optimizing price, batch production enables shorter delivery times. In addition, thanks to a large spare parts warehouse, the operability of service is considerably increased, as the company has all the parts from which the machines are assembled.

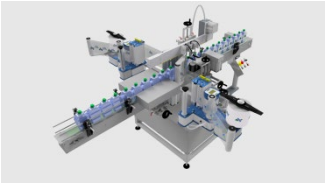
Unscrambling Machines

Filling Machines

Capping Machines



Labelling Machines



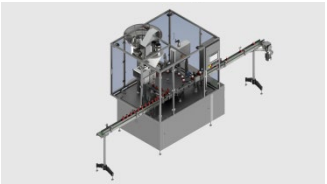
Control Systems

Cartonning Machines

Robotics

Complete lines

Monoblocks



Filling of barrels & IBCs

Unscrambling machines

❑ Basic configuration

- ✓ Stainless steel machine frame with height adjustable legs
- ✓ Empty containers hopper
- ✓ Sensor to detect low level of containers in the hopper
- ✓ Elevating conveyor
- ✓ Orientation bowl with diameter 800 - 1.600 mm (based on the size of containers and machine speed)
- ✓ Belts system for handling and orientation of containers
- ✓ Turning hook
- ✓ Control panel with touch screen
- ✓ Safety guards

❑ Other options

- ✓ Air rinsing/sterilizing device
- ✓ Servo driven turning hook
- ✓ Secondary orientation of bottles with eccentric necks or handles

❑ Process description

- ✓ The operator pours empty containers into the hopper. The hopper is equipped with a sensor to detect the level of the containers inside the hopper. In case of low level of containers, the machine gives light and acoustic signal to inform the operator. The container hopper is connected in the bottom part to elevating conveyor.
- ✓ The conveyor transfers empty containers to the orientation bowl. The orientation bowl orients the containers and transfers them into the belt system. The belt system performs the final orientation of the containers and loads them onto outfeed conveyor.

Filling machines

Filling machine with flowmeters

APOLLO FM

❑ Basic configuration

- ✓ Machine stainless steel frame mounted on height adjustable legs
- ✓ Motorized stainless steel conveyor with adjustable speed
- ✓ Infeed and outfeed gate which locate the group of bottles under the filling nozzles
- ✓ Bottle presence sensor
- ✓ Flowmeters for dose measurement
- ✓ Rise while fill nozzles
- ✓ Closing of the filling nozzles (anti-drip system)
- ✓ Bottle neck support for neck alignment
- ✓ Sensor to detect collision of filling nozzles
- ✓ Sensor to detect outcoming bottles from filling area
- ✓ Sensor to detect full downstream conveyor
- ✓ Siemens control system with touch screen
- ✓ Safety guards

❑ Other options

- ✓ Product tank made of stainless steel AISI 304 or AISI 316 with level control
- ✓ Product dosing pump
- ✓ CIP inlet connection
- ✓ Spray ball inside product tank
- ✓ Set of adapters for nozzles cleaning
- ✓ Motorized lift of filling nozzles
- ✓ ATEX configuration of the machine
- ✓ Corrossive proof version
- ✓ Food/pharma grade execution
- ✓ Remote access

❑ Process description

- ✓ The containers enter the machine on the conveyor with plastic or stainless steel belt. Before entering the filling area, the containers are stopped by inlet pneumatic gate. Once the previous group of filled containers leaves the filling station, the gate opens and allows next group of containers to enter. After entering of the next group the inlet gate is closed again. In case one or more containers are missing, the system waits and the filling process does not start.
- ✓ After entering of all containers, the filling process starts. As soon as the bottle necks are automatically centered, the nozzles dive into the bottles and open. The dose is measured by flow meters. For dosing of the product pumps or pressurized tank can be used. The filled dose is adjustable from the touch screen, which enables fast and easy change of the dosing volume and parameters.
- ✓ After finishing of the filling process the nozzles close and the anti-drip tray moves under the nozzles to avoid staining the containers. Then the outlet gate opens and lets the containers out of the filling machine.

Filling machines

Filling machine with rotary pistons

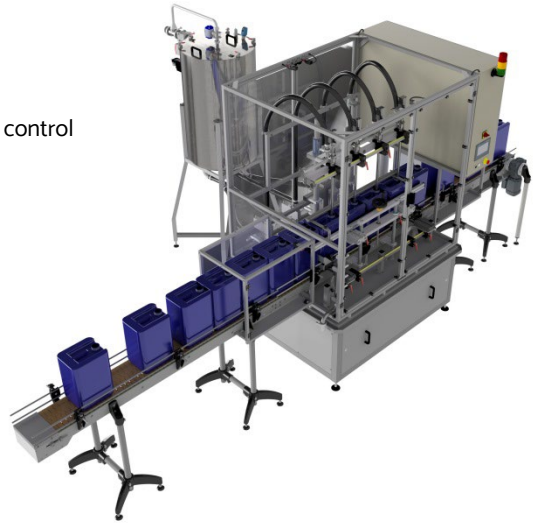
APOLLO LP

❑ Basic configuration

- ✓ Machine stainless frame mounted on height adjustable legs
- ✓ Motorized stainless steel conveyor with adjustable speed
- ✓ Infeed and outfeed gates which locates the group of bottles under the filling nozzles
- ✓ Bottle presence sensor
- ✓ Lobe pumps for dosing of the product
- ✓ Rise while fill nozzles
- ✓ Closing of the filling nozzles (anti-drip system)
- ✓ Anti-collission control of filling nozzles
- ✓ Bottle neck support for neck alignment
- ✓ Anti-drip tray under the filling nozzles
- ✓ Control of bottles evacuation
- ✓ Sensor to detect full downstream conveyor
- ✓ Siemens controller with touch screen
- ✓ Safety guards

❑ Other options

- ✓ Product tank made of AISI 304 or AISI 316 with level control
- ✓ Pressurized product tank
- ✓ CIP inlet connection
- ✓ Spray ball inside product tank
- ✓ Set of adapters for nozzles cleaning
- ✓ Weight cells under the filling nozzles
- ✓ Motorized lift of filling nozzle
- ✓ Remote access



❑ Process description

- ✓ The containers enter the machine on the conveyor with plastic or stainless steel belt. Before entering the filling area, they are stopped by inlet pneumatic gate. Once the previous group of filled containers leaves the filling station, the gate opens and allows next group of containers to enter. The inlet gate is closed again afterwards. In case one or more containers are missing, the system waits and the filling process does not start.
- ✓ After entering of all the bottles, the filling process starts. As soon as the bottle necks are automatically centered, the nozzles dive into the bottles and open. The dose is measured and dosed by Lobe pumps. The filled dose is adjustable from the touch screen, which enables fast and easy change of the dosing volume and parameters.
- ✓ After finishing of the filling process, the nozzles close and the drip tray comes under the nozzles to avoid staining the containers. Then the outlet gate opens and lets the containers out of the filling machine.

Filling machines

Weghing scale filling machine

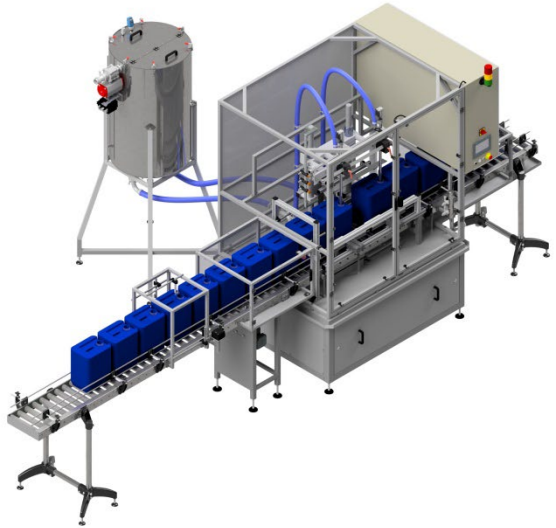
APOLLO LPW

❑ Basic configuration

- ✓ Machine stainless frame mounted on height adjustable legs
- ✓ Motorized stainless steel conveyor with adjustable speed
- ✓ Infeed and outfeed gates which locates the group of bottles under the filling nozzles
- ✓ Bottle presence sensor
- ✓ Lobe pumps for dosing of the product
- ✓ Weight scales for dose measuremnent
- ✓ Rise while fill nozzles
- ✓ Closing of the filling nozzles (anti-drip system)
- ✓ Anti-collission control of filling nozzles
- ✓ Anti-drip tray under the filling nozzles
- ✓ CE safety guards

❑ Other options

- ✓ Pressurized product tank
- ✓ CIP inlet connection
- ✓ Spray ball inside product tank
- ✓ Set of adapters for nozzles cleaning
- ✓ Motorized lift of filling nozzle
- ✓ Remote access



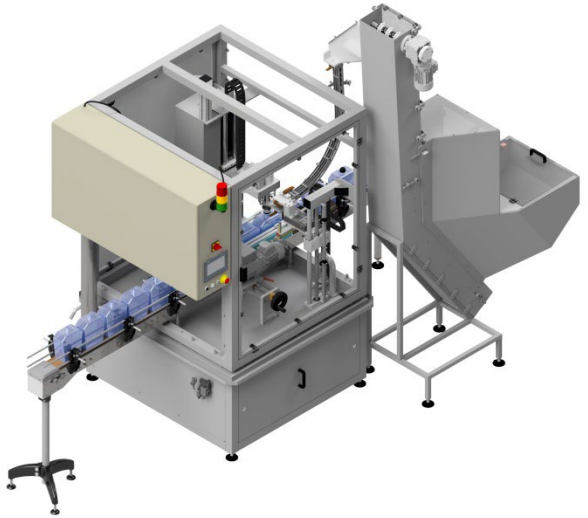
❑ Process description

- ✓ The containers enter the machine on the conveyor with plastic or stainless steel belt. Before entering the filling area, they are stopped by inlet pneumatic gate. Once the previous group of filled containers leaves the filling station, the gate opens and allows next group of containers to enter. The inlet gate is closed again afterwards. In case one or more containers are missing, the system waits and the filling process does not start.
- ✓ After entering of all the bottles, the filling process starts. As soon as the bottle necks are automatically centered, the nozzles dive into the bottles and open. The dose is measured and dosed by Lobe pumps. The filled dose is adjustable from the touch screen, which enables fast and easy change of the dosing volume and parameters.
- ✓ After finishing of the filling process, the nozzles close and the drip tray comes under the nozzles to avoid staining the containers. Then the outlet gate opens and lets the containers out of the filling machine.

Capping machines

Automatic linear capping machine

CAPLINE CN



❑ Basic configuration

- ✓ Stainless steel machine frame mounted on height adjustable legs
- ✓ Stainless steel conveyor with adjustable guide rails and with delrin or stainless steel top slat band
- ✓ Input and output gate or sidebelt for stopping of the bottles under capping head
- ✓ Rotary caps orientator on top of the machine
- ✓ Cap chute with sensor to detect cap presence
- ✓ Pick and Place device
- ✓ Capping head with adjustable torque
- ✓ Sensor to detect presence of the bottle under the capping head
- ✓ Sensor to detect full downstream conveyor
- ✓ Control panel with touch screen
- ✓ CE safety guards

❑ Other options

- ✓ Caps elevator with hopper
- ✓ ATEX configuration
- ✓ Corrossive proof version
- ✓ Remote access
- ✓ Rejector for bottles without caps

❑ Process description

- ✓ The bottles enter the machine on infeed conveyor. They are stopped under capping head by pneumatic gates or side belt.

- ✓ The caps are transported from the floor level caps hopper by belt elevator to the rotary orientator placed on the top of capping machine. Oriented caps fall down to the cap chute. The chute is equipped with sensor, which detects level of caps. In case of low level of caps in the chute, the sensor activates the orientator. The cap is transported from the cap chute by Pick and Place device directly to the capping head. The capping head puts the cap on the neck of the bottle and tightens it on requested capping torque. Closed container leave the machine on downstream conveyor.

Capping machines

Capping machine with movable head

CAPLINE DYNAMIC

❑ Basic configuration

- ✓ Stainless steel machine frame with height adjustable legs
- ✓ Motorized stainless steel conveyor with adjustable speed
- ✓ Adjustable side belts to stabilize and guide the bottle while capping
- ✓ Rotary caps orientator on the top of the machine
- ✓ Cap chute with sensor for cap presence check
- ✓ Pick and Place device
- ✓ Capping unit with movable axes that allows capping of the bottle while moving
- ✓ Sensor to detect bottle presence in the capping area
- ✓ Encoder system controlling bottle and canister speed
- ✓ Control panel with touch screen
- ✓ Safety guards

❑ Other options

- ✓ Caps elevator with integraded hopper
- ✓ Atex execution
- ✓ Chemical proof execution
- ✓ Remote acess
- ✓ Rejector for bottles without caps

❑ Process description

- ✓ The container enters the machine on the conveyor belt. Inside the machine the container is stabilized and guided by two side belts. Caps are oriented in vertical caps feeder/orientator or in rotary caps orientator.
- ✓ Oriented caps pass through the caps chute to the pickup point, where they are taken by dynamic servodriven capping head.
- ✓ The capping head follows the movement of the containers and tightens the caps on requested torque during the container transport. Closed bottles leave the machine on downstream conveyor.

Capping machines

Automatic single head rotary capping machine

CAPLINE ROT

❑ Basic configuration

- ✓ Machine frame with height adjustable legs
- ✓ Stainless steel conveyor with adjustable guide rails and with delrin or stainless steel top slat band.
- ✓ Starwheel for transfering of the bottles to the capping position
- ✓ Sensor for the detection of the container presence in the starwheel
- ✓ Rotary cap orientator
- ✓ Caps chute with sensor for cap presence detection
- ✓ Pick and Place device
- ✓ Capping head with adjustable torque
- ✓ Sensor to detect that downstream conveyor is full
- ✓ Control panel with touch screen
- ✓ CE safety guards

❑ Other options

- ✓ Caps elevator with hopper
- ✓ Format parts for second bottle or cap
- ✓ Sensor for detecting of caps presence on the bottle with or without rejector
- ✓ Automatic height adjustment of the capping head
- ✓ ATEX configuration
- ✓ Corrossive proof execution
- ✓ Remote access

❑ Process description

- ✓ The containers are transferred to the star wheel by means of the infeed conveyor. The star wheel (indexing type) takes the containers and carries them to the closing area. The caps are transferred from the caps hopper by a belt elevator to the rotary orientator on the top of capping machine. Oriented caps pass through the cap chute to the Pick and Place device.
- ✓ The cap chute is equipped with sensor that detects the cap presence. When there is low level of caps in the caps chutea the sensor starts the orientator. The cap is transferred from the chute to the capping head by Pick and Place device. The head puts the cap on the neck of the bottle and tightens it on requested capping torque. Closed bottles leave the machine on downstream conveyor.

Capping machines

Automatic multi-head rotary capping machine

CAPLINE ROT

❑ Basic configuration

- ✓ Machine frame with height adjustable legs
- ✓ Stainless steel conveyor with adjustable guide rails and with delrin or stainless steel top slat band
- ✓ Infeed screw for bottle positioning
- ✓ Infeed and outfeed starwheel for transfering bottles to and from the capping position
- ✓ Sensor for the detection of the container presence in the starwheel
- ✓ Rotary cap orientator
- ✓ Caps chute with sensor for cap presence detection
- ✓ Rotary Pick and Place device
- ✓ Rotary capping heads with adjustable torque (number of heads determines the machine speed)
- ✓ Control panel with touch screen
- ✓ CE safety guards
- ✓ Motorized capping height adjustment

❑ Other options

- ✓ Caps elevator with hopper
- ✓ Format parts for second bottle or cap
- ✓ Sensor for detecting caps presence on the bottle with or without reject
- ✓ ATEX configuration
- ✓ Corrossive proof execution
- ✓ Remote access

❑ Process description

- ✓ The containers are transferred to the infeed star wheel by means of the infeed screw. The star wheel (continuous type) takes the containers and carries them to the closing area. The caps are transferred from the caps hopper by the belt elevator to the rotary orientator on the top of capping machine. Oriented caps pass through the cap chute to the Pick and Place device.
- ✓ The cap chute is equipped with sensor that detects the cap presence. When there is low level of caps in caps chute the sensor starts the orientator. The caps are transferred from the chute to the capping heads by rotary Pick and Place device. The capping head puts the cap on the neck of the bottle while moving and tighten it on requested capping torque. Closed bottles are transferred to the outfeeed starwheel and leave the machine on downstream conveyor.

Capping machines

Capping triggers and pumps

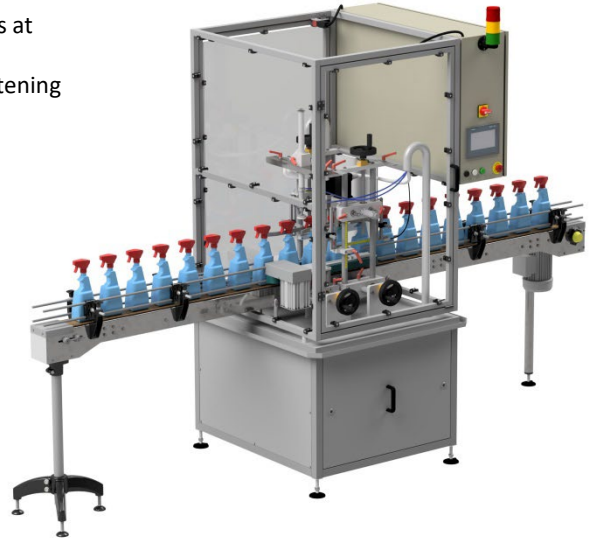
CAPLINE PMP

❑ Basic configuration

- ✓ Stainless steel machine frame with height adjustable legs
- ✓ Stainless steel conveyor with adjustable guide rails and with delrin or stainless steel top slat band.
- ✓ Side belts for stabilization and guidance of bottle
- ✓ System of motorized wheels for cap tightening
- ✓ Sensor to detect bottles in capping area
- ✓ Sensor to detect full downstream conveyor
- ✓ Control panel with touch screen
- ✓ CE safety guards

❑ Other options

- ✓ Pneumatic barrier with pedal to stop bottles at the infeed
- ✓ Tiltable tightening mechanism to allow tightening of duck type bottles
- ✓ Cap press-on unit
- ✓ ATEX configuration
- ✓ Corrossive proof configuration
- ✓ Remote access



❑ Process description

- ✓ The operator puts the cap on the bottle neck manually. Then the bottles enter the capping area and side belts guide the bottles to the capping station. The side belts stop the bottle in the exact position between the tightening wheels. The tightening mechanism tightens the cap to the requested torgue. When the torgue is reached, tightening mechanism opens and closed bottle leaves the machine.

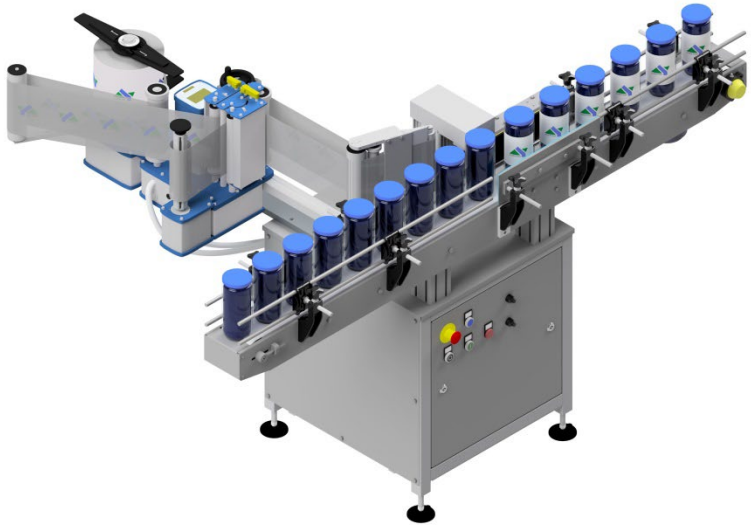
Labelling machines

Wrap around label application

SYSTEM 1

❑ Basic configuration

- ✓ Machine frame with height adjustable legs
- ✓ Motorized stainless steel conveyor with adjustable speed
- ✓ Labelling head
- ✓ Labelling head microregulation
- ✓ DRP side belt
- ✓ Counter plate for side belt



❑ Other options

- ✓ Three roller applicator for orientation of the label position in relation to the packaging
- ✓ Special side belt counter plate for application of full circumference labels on square bottles
- ✓ Hot stamp printing unit
- ✓ Thermal transfer printer

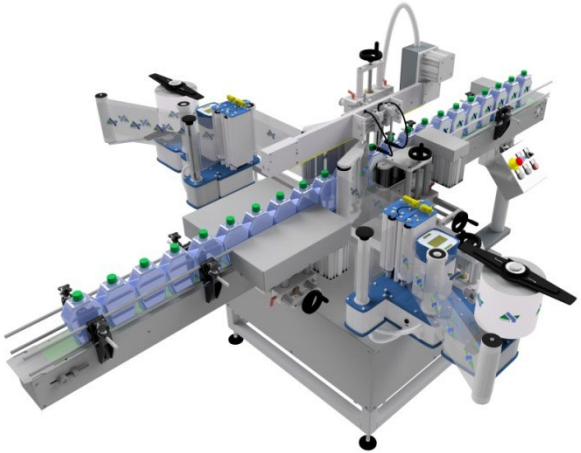
❑ Process description

- ✓ Containers enter the machine on the infeed conveyor. The machine is equipped with a sensor for container detection. When this sensor detects the container, it sends the signal to the labelling head to start the application of the label.
- ✓ The label is applied on the bottle and smoothed by side belt which rotates the container. Container with label then leaves the machine on downstream conveyor.

Labelling machines

Two side label application

SYSTEM 5



❑ Basic configuration

- ✓ Machine frame mounted on height adjustable legs
- ✓ Stainless Steel conveyor with motorization controlled by inverter
- ✓ One or 2 labelling heads
- ✓ 3 axe microregulation for position adjustment of labelling head(s)
- ✓ Tastex photocell start
- ✓ DSP top stabilization belt
- ✓ Label application finishing rollers
- ✓ Control panel

❑ Other options

- ✓ Chain orientator for elliptical containers
- ✓ DRP wraparound belt for cyllindrical containers
- ✓ Three rollers applicator for orientation of the label position in relation to the packaging
- ✓ Additional labelling head for top label application
- ✓ Hot stamp printing equipment
- ✓ Thermal transfer printing device
- ✓ Label presence control
- ✓ Label application control by camera
- ✓ Print presence control
- ✓ Pharma and barode readers
- ✓ Rejector for bottles without label or with wrong label print or position

❑ Process description

- ✓ Containers enter the machine on the infeed conveyor. The machine is equipped with a sensor for container detection. When this sensor detects the container, it sends the signal to the labelling head to start the application of the label.
- ✓ The label is applied on the bottle and smoothed by side belt which rotates the container. Container with label then leaves the machine on downstream conveyor.

Cartonning machine

CARTONTECH

❑ Basic configuration

- ✓ Box erector with folding and taping unit for bottom flaps
- ✓ Motorized conveyor to transfer erected boxes to the box filling station
- ✓ Infeed conveyor for bottles, cans, bags or small boxes
- ✓ Unit to prepare the group/matrix of bottles and other items (2x5, 3x4 etc.)
- ✓ 3 axe cartesian manipulator to place the group of items into the box
- ✓ System to facilitate the bottles insertion into the box
- ✓ Top flaps folding and glueing unit
- ✓ Outfeed conveyor for ready boxes

❑ Other options

- ✓ Robotic arm to insert the items into boxes instead of cartesian manipulator
- ✓ Box labelling or marking equipment
- ✓ End of tape alarm
- ✓ Remote access possibility
- ✓ Machine integration into the packaging line

❑ Process description

- ✓ Bottles, cans or bags enter the machine on infeed conveyor. Then the predefined group of items is formed by special unit (forming table).
- ✓ Unfolded boxes are taken from the box magazine by system of suckers, than opened, bottom flaps are automatically folded and taped and the box is ready to receive the products.
- ✓ Cartesian or robotic manipulator inserts the group of items to the box and after that the top flaps are automatically folded, taped and the box leave the machine on outfeed conveyor.

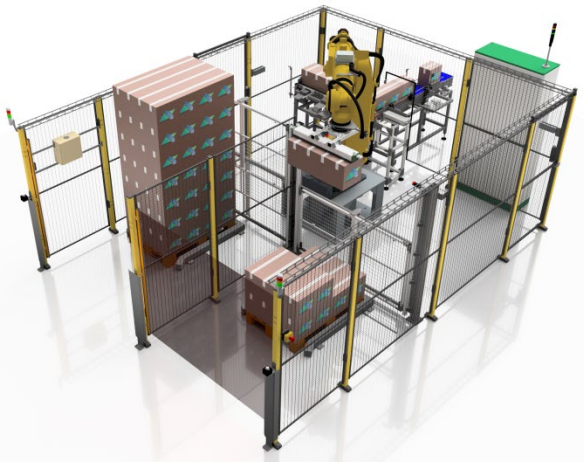
Robotic palletizing

❑ Basic configuration

- ✓ Infeed conveyor for palletized items (boxes, bags, canisters etc.)
- ✓ Preparation table to orientate the packages or to prepare the group of packages
- ✓ Palletizing robot with accessories and base
- ✓ Mechanical, vacuum or other types of gripper
- ✓ Palletizing position
- ✓ Safety guards with locks and light curtains
- ✓ Central ellectrical cabinet with PLC Siemes controller

❑ Other options

- ✓ Infeed and outfeed pallet conveyors
- ✓ Automatic pallet destacker
- ✓ Pads inserting unit by the same or auxiliary robot



❑ Process description

- ✓ Boxes, pails, bags or other items arrive to the palletizer on one or more infeed conveyors. Then they are oriented and prepared on preparation table for picking, alternatively all layers are formed.
- ✓ Robot picks up individual packages, group of packages or complete layer and places them on the pallet or halfpallet.
- ✓ Palletizing robot or auxiliary robot can place the pads on bottom of pallet or between the layers.
- ✓ When the pallet is full, the forklift operator picks up the pallet and replace it by empty one or the pallet leaves the position automatically on pallet conveyor (depends on level of automation).

Robotic handle applicator

❑ Basic configuration

- ✓ Stainlesss steel machine frame on height adjustable legs
- ✓ Stainless steel bottles conveyor
- ✓ Side belts to stabilize and guide bottles or canysters during handle application
- ✓ Stainless steel handles magazine
- ✓ Belt elevator for hanle feeding on horizontal conveyor
- ✓ Horizontal conveyor for handle transfer to scara robot
- ✓ System of rotary brushes to avoid overlap of handles
- ✓ Scara robot with camera which picks up the handles and places them on the bottle neck
- ✓ Encoder to monitor the speed of the conveyor belt

❑ Other options

- ✓ Handle presence control with rejector
- ✓ Second robot to increase the speed of application

❑ Process description

- ✓ The bottles enter the machine on infeed conveyor. Two side belts take the incoming bottles and guide them during the application. The handles are transferred from the hopper to horizontal conveyor, than they are separated by rotating brushes and transferred in single layer to scara robot.

- ✓ Scara robot picks up correctly orienetd handles from the conveyor using camera system and place the handles on the canister necks. The canisters with the handle on leave the machine on downstream conveyor.

Complete filling lines

❑ Basic configuration

❑ Economic lines with a capacity of 500 - 2,500 bottles per hour

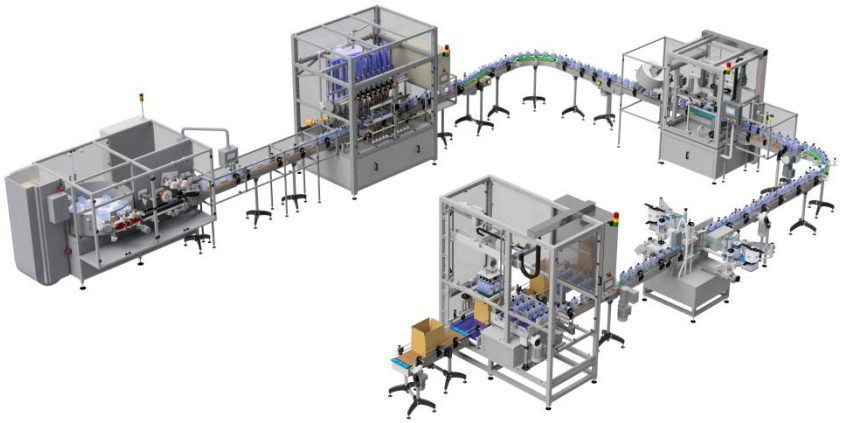
✓ Standard set: entry table, filling machine with 1-6 nozzles, linear or step-by-step single-headed capping machine, labelling machine, shrink tunnel for packaging into shrink foil or a cartoning machine and a palletizing robot

❑ Medium capacity lines for 3,000 - 5,000 bottles per hour

✓ Standard set: entry table or bottle erector, filling machine with 8-12 nozzles, a linear continual or rotation capping machine, labelling machine, shrink tunnel for packaging in shrink foil or a cartoning machine and a palletizing robot

❑ High-capacity lines for 6,000 - 10,000 bottles per hour

✓ Standard set: bottle erector or depalletizer, double-row filling machine, rotating capping machine, labelling machine, shrink tunnel for packaging in shrink foil or a cartoning machine and a palletizing device



❑ Other options

✓ Lines suitable to be placed in **ATEX** rated environment with ATEX certified components for filling of solvents, alcohol based products etc.
✓ Corrosive proof lines for filling of acids, hypochloride based products, detergents, fertilizers and other corrosive products.
✓ Possible to monitor all machines in the line using distant access
✓ Modular concept of the lines with possibility to increase the capacity when the sale of filled products increases

Filling of barrels & IBCs

❑ Basic configuration

- ✓ Weight platform with stainless steel cover plate
- ✓ Movable nozzle holding arm for nozzle positioning
- ✓ Nozzle height adjustment by handwheel or motorized
- ✓ In neck diving filling nozzle
- ✓ Pneumatic closing of the filling nozzle
- ✓ Drip tray under the filling nozzle
- ✓ Infeed product pipe with proportional valve or pump
- ✓ Pneumatic sealing head on balancer
- ✓ PLC Simens with TS

❑ Other options

- ✓ System of pallet infeed and outdeed conveyors
- ✓ Motorized diving nozzle for bottom filling
- ✓ System to heat the hoses for hot filling
- ✓ Drum labelling system

❑ Process description

- ✓ The pallet with drums or IBC container is placed by forklift on the weight platform, in case of automatic pallet feeding it arrives to the filling position on the conveyor. The weigher makes tara. Than the operator moves the nozzle placed on movable arm over the drum opening and press the buttons to activate arm brakes.
- ✓ The arm is then fixed in the position and the nozzle dives into the drum opening. The filling process starts. When the preset weight is nearly reached, the proportial valve and filling nozzle partially close and when the required weight is reached, the valve and nozzle completely close and the nozzle can be moved to next drum. When filling is completed, drums are closed with the help of closing tools. Than the pallet with filled and closed drums leaves the position on conveyor or can be collected by forklift.

Monoblocks For liquid products

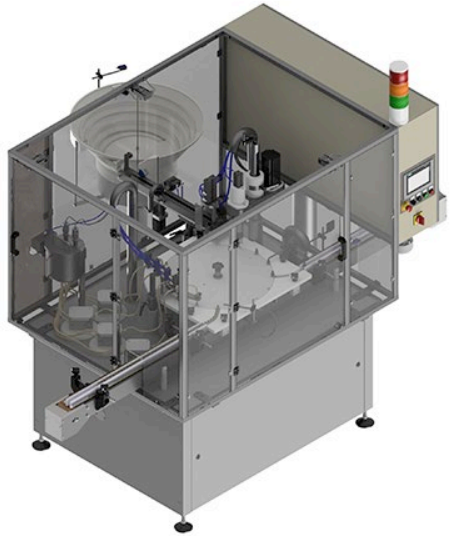
PHARMLINE

❑ Basic configuration

- ✓ Stainless steel machine frame with height adjustable legs
- ✓ Motorized conveyor with adjustable speed
- ✓ Starwheel for containers transfer between the stations
- ✓ Sensor for containers presence detection
- ✓ Product tank including product level control
- ✓ Filling station with peristaltic pumps or flowmeters
- ✓ Closing of the filling nozzles
- ✓ Vibrating or rotary caps orientator
- ✓ Pick and Place Device
- ✓ Capping head with ajdustable torque
- ✓ Sensor to detect full downstream conveyor
- ✓ Control panel with touch screen
- ✓ CE safety guards

❑ Other options

- ✓ Caps elevator with hopper
- ✓ Product tank heating
- ✓ Product tank agitator
- ✓ Undercap application station
- ✓ Sensor for caps/undercaps presence detection
- ✓ Rejector for bottles without cap
- ✓ Material certifikates for pharmaceutical industry
- ✓ IQ, OQ validation packages
- ✓ Laminair box with Hepa filters
- ✓ ATEX configuration
- ✓ Remote access



❑ Process description

- ✓ Empty vials (or other containers) are transported by infeed conveyor to the starwheel. At the entrance vial presence sensor is located. The first station is filling. Machine can be equipped with 1 to 6 filling positions. For filling peristaltic pumps are used. Other types of dosing system are also available (Lobe pumps, flowmeters etc.).
- ✓ Next operation after filling is capping. In standard execution, the machine is equipped with capping device for screw caps that consists of caps feeder, caps chute, pick and place device and capping head. This capping device can be replaced by crimping or other system. Additional capping unit for application of droppers, dosers or rubber stoppers can be added. Filled and closed containers leave the machine on outfeed conveyor.

Monoblocks

Filling and sealing of plastic and metal tubes

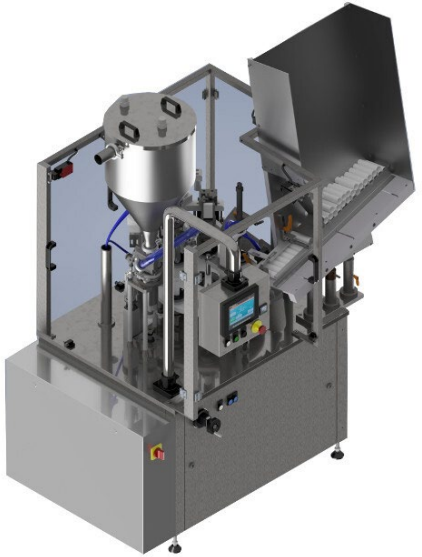
TUBELINE

❑ Basic configuration

- ✓ Machine frame with height adjustable legs
- ✓ Tube magazine with automatic feeding
- ✓ Rotary table for transfer the tubes between stations
- ✓ Tube orientation unit
- ✓ Product tank with 35 L capacity including product level control
- ✓ Piston filling unit
- ✓ Tube lift for bottom filling
- ✓ Pneumatically closed filling nozzle
- ✓ Hot air unit for seal heating
- ✓ Closing unit including embossing
- ✓ Trimming unit
- ✓ Automatic outfeed of filled tubes
- ✓ Control panel with touch screen
- ✓ Safety guards

❑ Other options

- ✓ Heating of the product tank
- ✓ Product tank agitator
- ✓ Unit for making of round welds
- ✓ Unit for cutting the hinge hole in the tube weld



❑ Process description

- ✓ The operator manually loads the tubes into the tube magazine. The tube is then automatically inserted into the tube holder so called ”nest”. The rotary table with nests moves the tubes to the orientation position, where the tube is oriented based on the ”black mark”. After that the tube is transferred to the filling unit.
- ✓ The product is stored in the product hopper and dosed by volumetric cylinder. The volume of filling can be easily adjusted.
- ✓ Next station is the tube heating device where the top of the tube is heated by a hot air unit. Than the tube is sealed and the top of the tube is trimmed to obtain nice finish. Ready tube is transferred to the outfeed conveyor.

Monoblocks

Filling and capping of buckets

BUCKETLINE

❑ Basic configuration

- ✓ Pail stacks buffer
- ✓ Pail destacker of mechanical or robotic type
- ✓ Pail filling unit using flowmeter or weight dosing system
- ✓ Pail sealing unit
- ✓ Pail lidding system mechanical or robotic
- ✓ Labeller for one or 2 side labelling
- ✓ Pail palletizer

❑ Other options

- ✓ Pail and lid cleaning system using ionized air
- ✓ Pail orientation unit
- ✓ Nitrogen dosing system
- ✓ Lid presence and closing quality check
- ✓ Pallet conveyors as accessory to pail palletizer

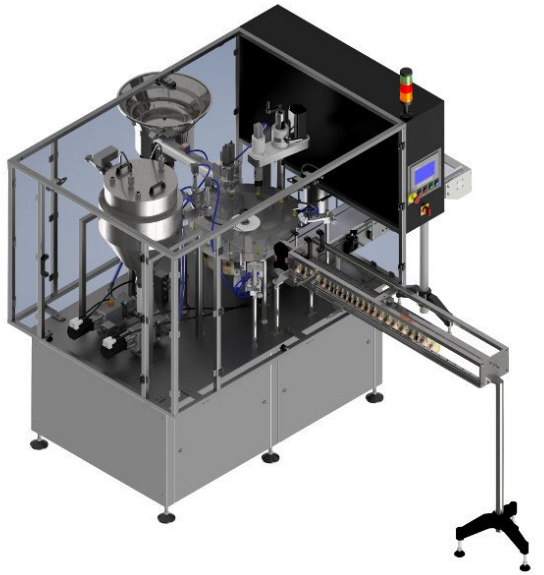
❑ Process description

- ✓ The stacks of pails are placed on the infeed buffer conveyor (vertical destacker) or on parallel horizontal conveyors (robotic destacker).Than the pails are transferred to the destacking position. There the last pail is separated from the stack and placed on the pail infeed conveyor.
- ✓ The pail is filled using flowmeter or weight type doser and after filling it moves to the sealing station. There the pail is sealed with foil and moves to next lidding position. In this position the lid is placed on the top of the pail by mechanical cam or scara robot and than the lid is pressed on by motorized roller applicator.
- ✓ After closing one or more labels are applied. Filled, closed and labelled pail can be automatically palletized by palletizing robot with special gripper. Pail palletizer can be equipped with pallet destacker, infeed and outfeed conveyors, automatic stretchwrapper and pallet labeller/printer.

Monoblocks

Filling and capping of doypacks

POUCHLINE



❑ Basic configuration

- ✓ Stainless steel machine frame with height adjustable legs
- ✓ Pouches insertion system
- ✓ Starweel to tranfer pouches between the stations
- ✓ Sensor for detecting pouches presence in the starwheel
- ✓ Product tank with product level control
- ✓ Filling stations with rotary pumps or flow meters
- ✓ Pneumatic closing of filling nozzles
- ✓ Rotary caps orientator
- ✓ Cap chute with sensor for cap presence check
- ✓ Pick and Place unit
- ✓ Capping head with adjustable capping torque
- ✓ Sensor for checking the cap presence on pouch
- ✓ Outfeed conveyor for filled and closed pouches
- ✓ Control panel with touch screen
- ✓ Safety guards

❑ Other options

- ✓ Automatic pouches insertion system from rails
- ✓ Caps elevator with integraded hopper
- ✓ Product tank heating
- ✓ Product tank agitator
- ✓ Automatic pouches insertion directly from carton boxes
- ✓ Automatic packing of filled pouches to boxes
- ✓ Undercap application station
- ✓ ATEX Configuration
- ✓ Remote access

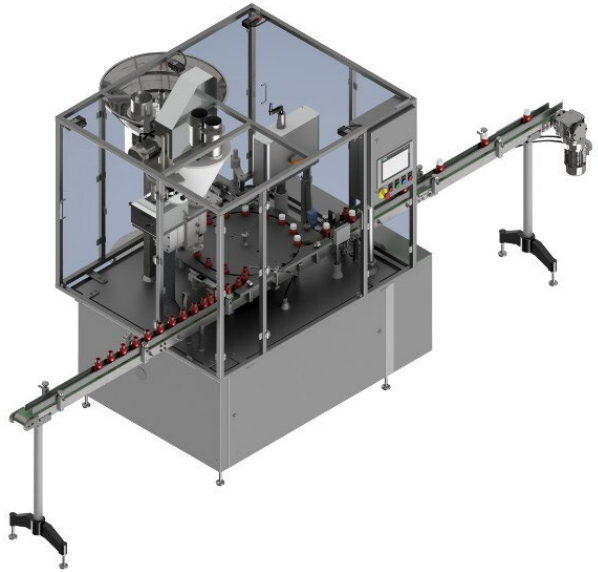
❑ Process description

- ✓ Operator inserts empty pouches or bags to the machine infeed rail. The insertion system inserts the bags one by one to the starwheel of the machine. The first operation is filling. The machine can be equipped with 1 to 4 filling positions. For filling rotary pumps, peristaltic pums or flowmeter systems can be used.
- ✓ Next operation after filling is capping. In standard execution the machine is equipped with capping device for screw caps that consists of caps feeder, caps chute, pick and place device and screw caps capping head. Filled and closed bag is transferred to the outfeed conveyor and then to other operations (cartoning, packing).

Monoblocks

POWDERLINE

Filling and capping of bulk materials



❑ Basic configuration

- ✓ Stainless steel machine frame with height adjustable legs
- ✓ Motorized conveyor with adjustable speed
- ✓ Starwheel for containers transfer between the stations
- ✓ Sensor for containers presence detection
- ✓ Product tank including product level control
- ✓ Powder filling station with screw doser
- ✓ Closing of the filling nozzles
- ✓ Vibrating or rotary caps orientator
- ✓ Pick and Place Device
- ✓ Capping head with ajdustable torque
- ✓ Sensor to detect full downstream conveyor
- ✓ Control panel with touch screen
- ✓ CE safety guards

❑ Other options

- ✓ Caps elevator with hopper
- ✓ Product hopper with screw elevator
- ✓ Product hopper agitator
- ✓ Weight cell under the filling position
- ✓ Sensor for caps presence detection
- ✓ Rejector for bottles without cap
- ✓ Material certifikates for pharmaceutical industry
- ✓ IQ, OQ validation packages
- ✓ Laminair box with Hepa filters
- ✓ ATEX configuration
- ✓ Remote access

❑ Process description

- ✓ Empty containers are transported by infeed conveyor to the starwheel. At the entrance container presence sensor is located. The first station is filling of powder material. Machine can be equipped with 1 or 2 filling positions. For filling screw dosers are used. Other types of dosing system are also available (volumetric dosers, multiweighers etc.).
- ✓ Next operation after filling is capping. In standard execution, the machine is equipped with capping device for screw caps that consists of caps feeder, caps chute, pick and place device and capping head. This capping device can be replaced by twist off, press on or other system. Filled and closed containers leave the machine on outfeed conveyor.

Monoblocks

Filling and capping of cups, trays and pots

CUPLINE

❑ Basic configuration

- ✓ Machine frame with height adjustable feets
- ✓ Cups magazine with automatic destacker
- ✓ Rotary table for moving cups between stations
- ✓ Sensor to detect the cups presence in rotary table
- ✓ Product hopper with level control
- ✓ Filling station with lobe pump
- ✓ Bottom filling system
- ✓ Pneumatic closing of filling nozzle(s)
- ✓ Lid magazine with automatic destacker
- ✓ Control panel with touch screen
- ✓ Safety guards

❑ Other options

- ✓ Heating of the product tank
- ✓ Product tank agitator
- ✓ Auger doser for powder products
- ✓ Pre-cutted foil sealing
- ✓ Foil sealing from the reel
- ✓ Outfeed conveyor

❑ Process description

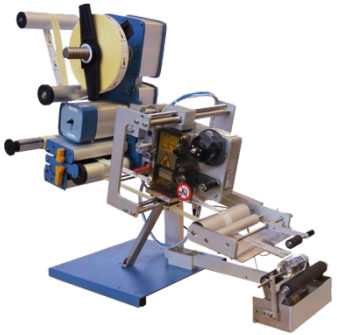
- ✓ The operator puts a stack of cups to the cups magazine. The cups is taken from magazine by vacuum suction pad that inserts the cup to the position in rotary table. This table moves the cups between the stations inside the machine. The first station is filling using lobe pump for dosing.
- ✓ The machine is equipped with cup lifting system for filling from the cup bottom to eliminate air pockets. Next station is lid applicator consisting of lids magazine and lid placing mechanism. Machine can be also equipped with aluminium or plastic foil applicator. After filling and closing the cup is transferred to the outfeed table or outfeed conveyor.

Semi-automatic

UP MINI

UP CAP

STARTER



❑ Basic configuration

- ✓ Single head piston filler
- ✓ Table top screw capper
- ✓ Table top label applicator for cyllindrical containers

❑ Other options

- ✓ Twin head piston filler
- ✓ Capper to close vials by crimping
- ✓ Special tools to apply labels on square and shaped bottles

❑ Process description

- ✓ The operator places the bottle under the filling nozzle. Than he presses the button and piston filler makes the stroke and doses the liquid or paste.
- ✓ After filling the operator places the cap on the bottle and moves the bottle under the capping head.
- ✓ The semiautomatic capper tightens the cap on the bottle neck.
- ✓ Finally the bottle is manually transferred to the labeller and selfadhesive label is applied.

Advantages of Albertina

- ✓ one producer of all core machines-filler, capper, labeller, case packer, drum filler-palletizer
- ✓ one style of software
- ✓ one type of Siemens PLC and TS in all core machines
- ✓ communication with all machines in filling line via central PLC
- ✓ possibility to connect complete line to superior system of the company
- ✓ distant access and communication with complete line
- ✓ company Albertina acting 32 years on the market
- ✓ over 3000 installations worldwide
- ✓ experienced team of service technicians and programing engineers
- ✓ worldwide service and sales network
- ✓ immediate commercial and technical reaction
- ✓ 24/7 service
- ✓ top level components used in lines - Endress and Hauser, Siemens, SMC or Festo, Omron, Fanuc etc.
- ✓ focus on low energy consumption
- ✓ high filling accuracy, high line efficiency

References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s.r.o.
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Continental


Henkel


Dr. Oetker


LEGO


P&G
Procter&Gamble


ROSNEFT


bp


3M


Reckitt
Benckiser


ORLEN


BASF
We create chemistry


FERRING
PHARMACEUTICALS


Mondelēz
International
SNACKING MADE RIGHT


TotalEnergies


FUCHS


OMV


Valvoline


Beiersdorf


MOL


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