

# E-Fill

## Automatic filling, screwing and labelling machine

SPEED: up to 25 products/minute (depending on packaging)



### The E-Fill is equipped with :

- 304 stainless steel frame.
- 304 stainless steel conveyor with ACETAL chain.
- Asynchronous motors on variable speed drives.
- 304 stainless steel watertight electrical box.
- Intuitive colour touch screen with memory for recipes and self-diagnostics.
- Star configuration for successive filling and capping.
- 1 labelling station for cylindrical products
- 700 mm diameter rotative table for receiving products.
- Machine complies with CE standards.

## Available options

- A container feeding system (TRI, vial unscrambler or high-capacity vial unscrambler).
- A mass flow meter or electromagnetic flow meter.
- A centrifugal, positive displacement pump with flexible impeller or eccentric screw.
- A peristaltic pump.
- A piston (different dosing devices possible).
- An additional dosing nozzle (short, standard, swivel, etc.).
- VS400 screw capping machine.
- A VS500 screw capping machine
- A cap pushing station.
- A crimping station.
- A container receiving system (cylindrical table, rectangular table, transfer plate).
- An HSA mini Touch printer.

## Limits of the E-Fill

- Dosing of volumes of less than 0.2ml and more than 1 litre.
- Labelling of conical products.

*Before placing an order, we can carry out tests free of charge to ensure the feasibility of your project. Please do not hesitate to contact us!*

## Technical characteristics E-Fill

APPROXIMATE MASS (LBS)	300 kg (depending option)
DIMENSIONS (WITH FRAME)	1500 mm in width 1700 mm in height 3500 mm of depth
POWER CONSUMPTION	1 kW
POWER SUPPLY	220V single phase 50Hz
FREQUENCY	~ 50 Hz 16 A
CONTROL	Touch screen
IDEAL OPERATING TEMPERATURE	from 10°C to 30°C

**Please note that this machine requires an electrical and pneumatic power supply.**

## Technical focus n°1

### *PNEUMATIC / ELECTRICAL CONNECTION*

Pneumatic connection: 1 air connection on pressure gauge - Under 6 bars constant (Hose to be provided  $\varnothing$  Int/Ext = 8/10 mm).

Electrical connection: 1 Cable 220-230 volts single phase - length 6m - domestic plug.

## Technical Focus n°2

### *TOUCH SCREEN*

The color touch screen allows easy adjustment of several parameters such as:

The selection of the labelling stations and the options.

Setting of time delays (label output, spacing).

Daily product counter.

## Technical focus n°3

### *TRI - FEEDING TABLE*

- $\varnothing$  700mm motorised infeed table
- HDPE railing
- Variable frequency drive to modulate rotation speed
- A guide (adjustable) to bring the products to the conveyor entrance
- A “no jam” detection sensor

## Technical focus n°4

### *PERISTALTIC PUMP*

- Dosing from 10 ml to 1 litre with an accuracy of  $\pm 0.5\%$ .
- Keyboard and LCD screen control.
- Anodised aluminium pump head with 12 offset 304 stainless steel rollers mounted on ball bearings.
- Tools for use with silicone tubes  $\varnothing 0.5 - 0.8 - 1.2 - 1.6 - 3.2 - 4.8 - 6.0 - 8.0$  mm.
- Supplied with 1 x  $\varnothing 4.5$ mm dosing needle with 2.1 certificate, 2 x 600mm 316L stainless steel suction nozzles and 30 metres of hose per pump head.
- Correction, re-suction, speed and acceleration control functions.

## Technical Focus n°5

### *FLOWMETERING*

Flowmeter dosing is generally used for fluid to slightly thick products without lumps in suspension.

Flowmeter dosing involves the action of a rotary pump, a flowmeter and a dosing head (which can be in several configurations). The mass flowmeter is compatible with all types of product, while the electromagnetic flowmeter is only compatible with conductive products.

## Technical Focus n° 6

### PISTON DOSING

Piston dosing is generally used for packaging liquid to dense products or with pieces in suspension. By means of a suction system, the product is introduced into the dosing chamber of the piston. When the predefined quantity is reached, the piston pushes the product towards the valve and then towards the dosing head. In some cases, the piston can be equipped with a hopper to facilitate the suction of the piston. The speed of the piston movement is adjusted by means of regulators. The piston cycle consists of dispensing and then suctioning while waiting for the next dose.

## Technical Focus n° 7

### VS400

VS400 screw capping station including:

- A product detection and stopping device for manual cap application with a cap presence control sensor
- A device for detecting and stopping products under the screwing head, with a pneumatic cylinder with a «V» tip and an anti-rotation plate
- Screwing machine with electric height adjustment equipped with a screwing head for one cap format
- Bottle locking system using a guided pneumatic cylinder with a cylinder head adapted to the product and an anti-rotation device.
- Double-guided screwing system with electric height adjustment via touch screen.
- Low-voltage electric screwdriver (320 rpm) with toolless adjustable screwdriving torque (0.7 to 3 Nm).
- Screwdriving unit mounted on a pneumatic actuator.
- Screwing head machined according to the geometry of your cap (diameter, height, type of grooves, etc.).

## Technical Focus n° 8

### CAP PUSHING

Pushing station including:

- A bottle detection and stop device for manual capping
- Cap presence control unit
- A bottle detection and stopping device under the driving head, with pneumatic jack and centring V
- A height-adjustable pneumatic cylinder to press the cap onto the neck of the bottle

## Technical Focus n° 9

### CRIMPING

Crimping station including :

- Bottle locking system using a guided pneumatic cylinder with a cylinder head adapted to the product
- Crimping system on electrically height-adjustable double guide
- Crimping assembly mounted on pneumatic cylinder
- Crimping head adapted to the geometry of your cap (diameter, height, etc.)
- Crimping station can be dismantled

## Technical Focus n°10

### LABELING STATION

#### 3-POINT TECHNOLOGY :

The 3-point technology positively grips the bottle between 3 rollers as it rotates, ensuring better application and smoothing of the label on the body of the bottle, limiting bubbles, creases and other deviations.

#### TECHNICAL DESCRIPTION :

- Rotary labeling stations mounted on electric columns that can be controlled from the touch screen and fitted with asynchronous motors on frequency drivers.
- Adapter mandrel for label rolls from Ø40 to Ø76 mm.
- Industrial» product cladding system with interchangeable guided pneumatic cylinder. Rolls adapted to the material, shape and rigidity of the product to be labeled.
- Ø61 mm smoothing roller adapted to the product.
- Different time delays can be memorized and recalled from the touchscreen, depending on the desired finish.
- Detection of transparent labels by ultrasonic gap sensor (optional).
- Automatic height recall (optional).

#### WINDING DIRECTION: # 4 LEFT OUT

Coil dimensions :

- a : max. chuck diameter = 75 mm
- b : max. coil diameter = 260 mm
- c : max. labelling height = 155 mm
- d : label gap = 3-5 mm

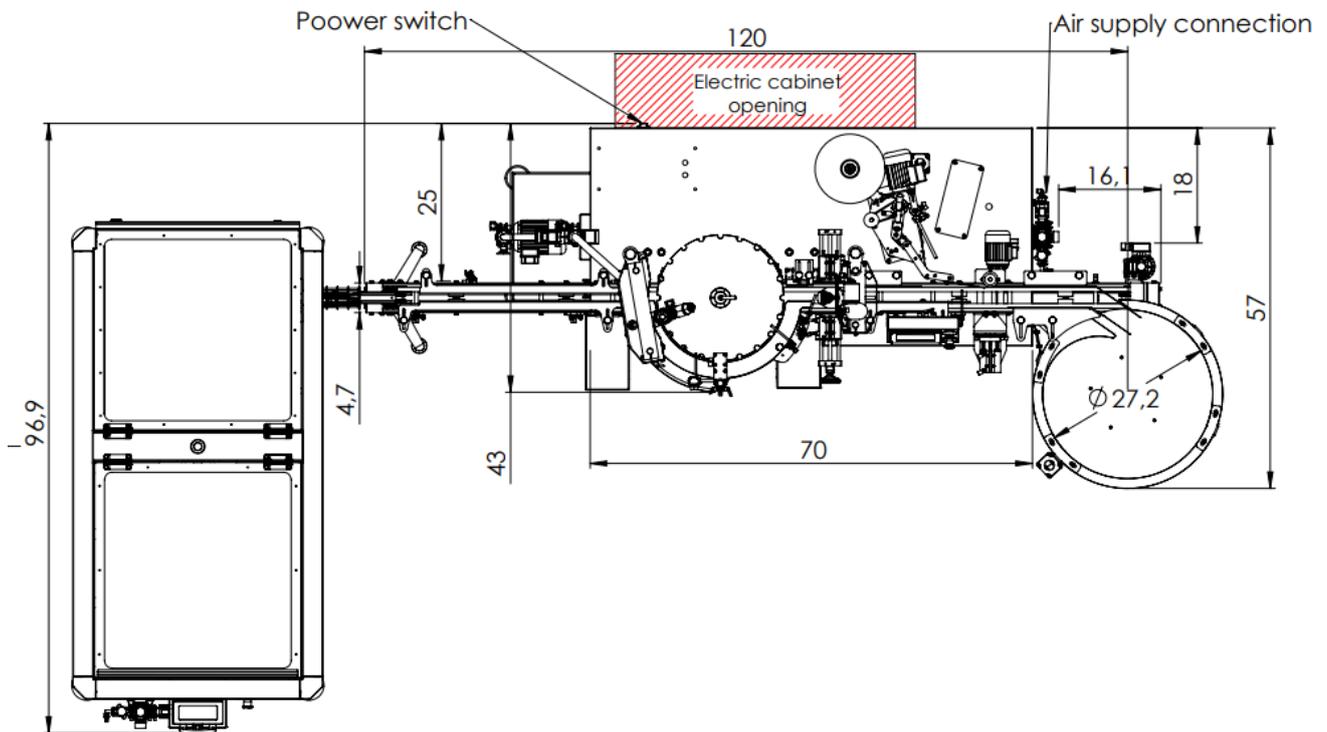
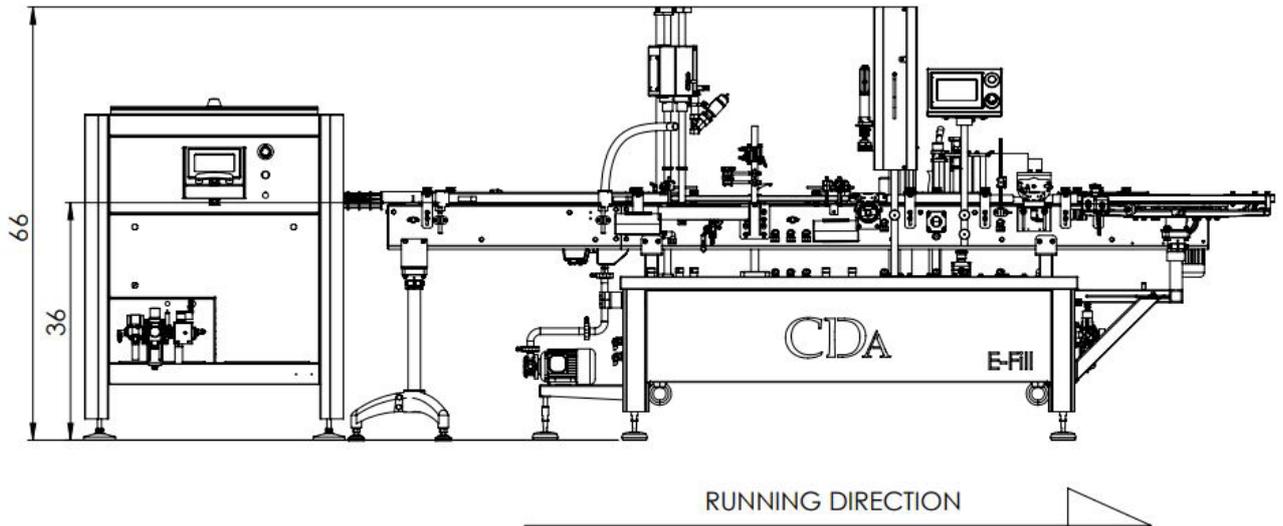
Minimum quality of the tape used : 90g

Important : Label reels should be stored in a dry place between 15°C and 18°C

## Technical Focus n°11

### RECOLLECTION TABLE

The recollection table is installed at the machine exit to collect the labelled bottles. The 700 mm diameter table can receive up to 60 bottles. The receiving table saves the operator a considerable amount of time.



*Pictures, production rates and technical descriptions for information.*