



## KALIX KX603

60 tubes/minute filling machine

# YOU'RE IN FOR A GREAT EXPERIENCE

## KX603 MAIN FEATURES:

### User-friendly

- Tool-free changeover of the entire filling unit
- Superfast changeovers
- Only short training required

### Reliable

- Simple design, robust materials
- Simple maintenance
- Stable set-up over production

### Flexible

- Easily interchangeable closure heads (Hot Air/folding)
- Suitable for all materials (plastic, laminated, aluminium)
- Dosing precision ( $\pm 0,5\%$ ) compatible with most fluids

### Upgradable

- Can be upgraded to 80 tubes/minute

The KX603 filling machine is designed to ensure the best user experience in the pharma and beauty industry. The filling unit is easy to disassemble without tools, which makes cleaning very simple. Changeovers are superfast, just 5 minutes for a new bulk and a mere 10 minutes for a new format. It also offers full stability of the set up during production.

In fact, the KX603 filling machine is so simple that pretty much anyone can run it after a short introductory training.

Compact and with unpainted stainless steel finish, this machine is particularly suited for production in controlled environments.

The Citus Kalix machine range has been produced since 1928. Over 10,000 machines are running worldwide, some are more than 25 years old.

## OUR RANGE OF FILLING MACHINES

### Tube fillers ESSENTIAL



KX603



KX803

### Tube fillers AGILITY



KX903



KX1103 EVO

### Jar and mascara fillers



KJ503 (jar)



KM503 (mascara)

### 1. Tube feeding

The KX603 is a single-operator machine with an automatic tube loading system including an inclined plane with a loading "V".

It can be fitted with an optional tube feeder module (one box autonomy).

### 2. Presser

Placing the tube at the bottom of the tube holder.

### 3. Orientation

A stepper motor provides very precise automatic orientation of the tubes. Motor position under the work table. Tube orientation adjustment from the console.

### 4. Filling

For cleaning, assembly parts can be removed without tooling. Manufactured in 316 l stainless steel, it has been designed to be the most ergonomic on the market in terms of weight. We propose two valves and the associated range of pumps:

- A valve for volumes up to 140 ml, with weight less than 5 kg with the following pumps

Pump Ø	Min dosage ml	Max dosage ml
Ø 14	1	16
Ø 22	4	38
Ø 42	15	140

- A valve for volumes up to 400 ml, with weight less than 8 kg with the following pumps

Pump Ø	Min dosage ml	Max dosage ml
Ø 16	2	20
Ø 25	4	50
Ø 35	10	100
Ø 52	30	220
Ø 70	50	400

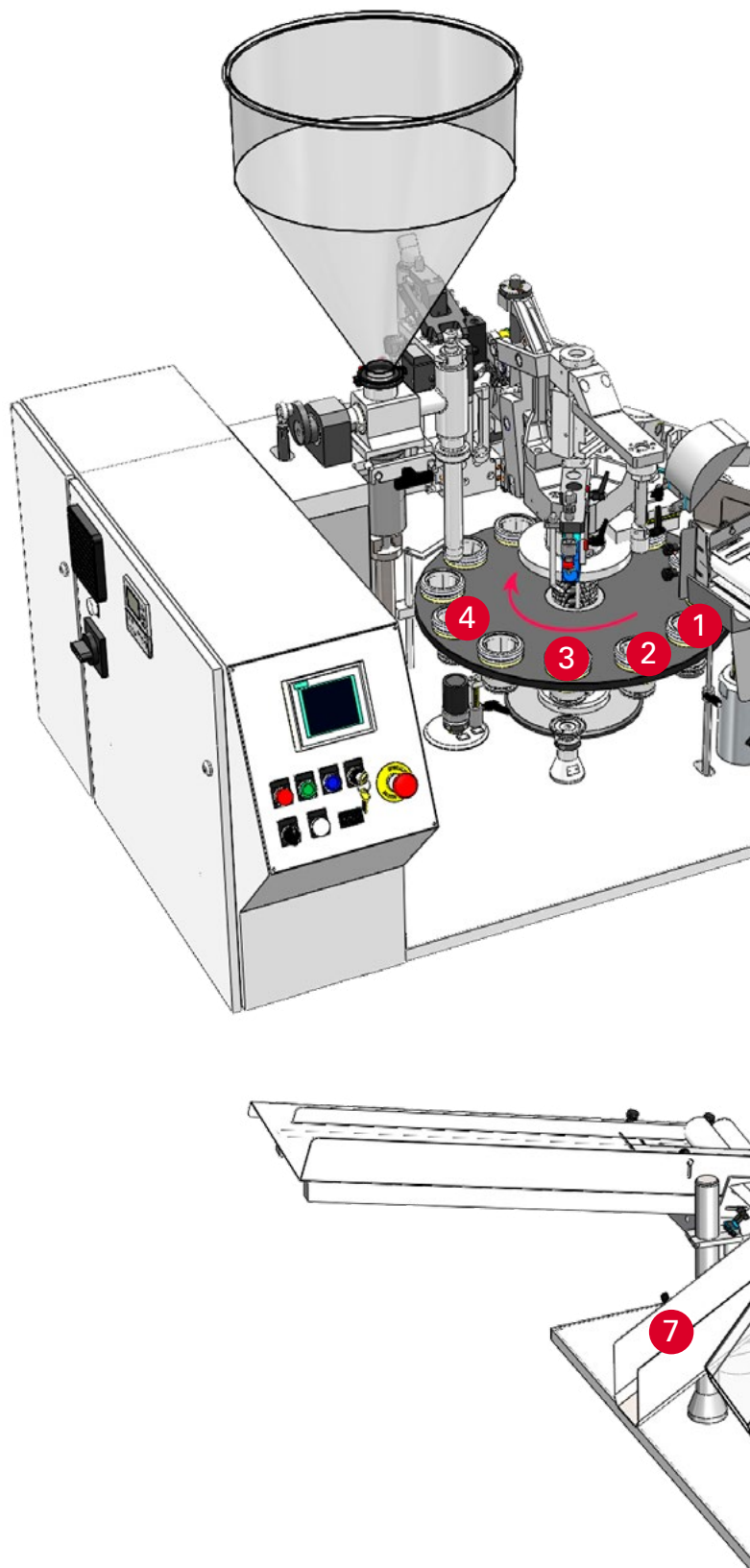
Our cutting nozzles device allows optimum filling.

### 5. Closure

#### Plastic tubes

The Kalix Hot Air welding technology is the simplest and best on the market. It allows straight welds to be made with repeatable quality.

Changing the hot air nozzle (the only format part) is done very quickly and easily, and requires only one setting parameter (the temperature). In addition, this format change is done without any disconnection of the fluids.



#### Metal tubes

The latest range of entirely mechanical heads for metal tubes provides metal tube folding. Our metal heads are available in three versions:



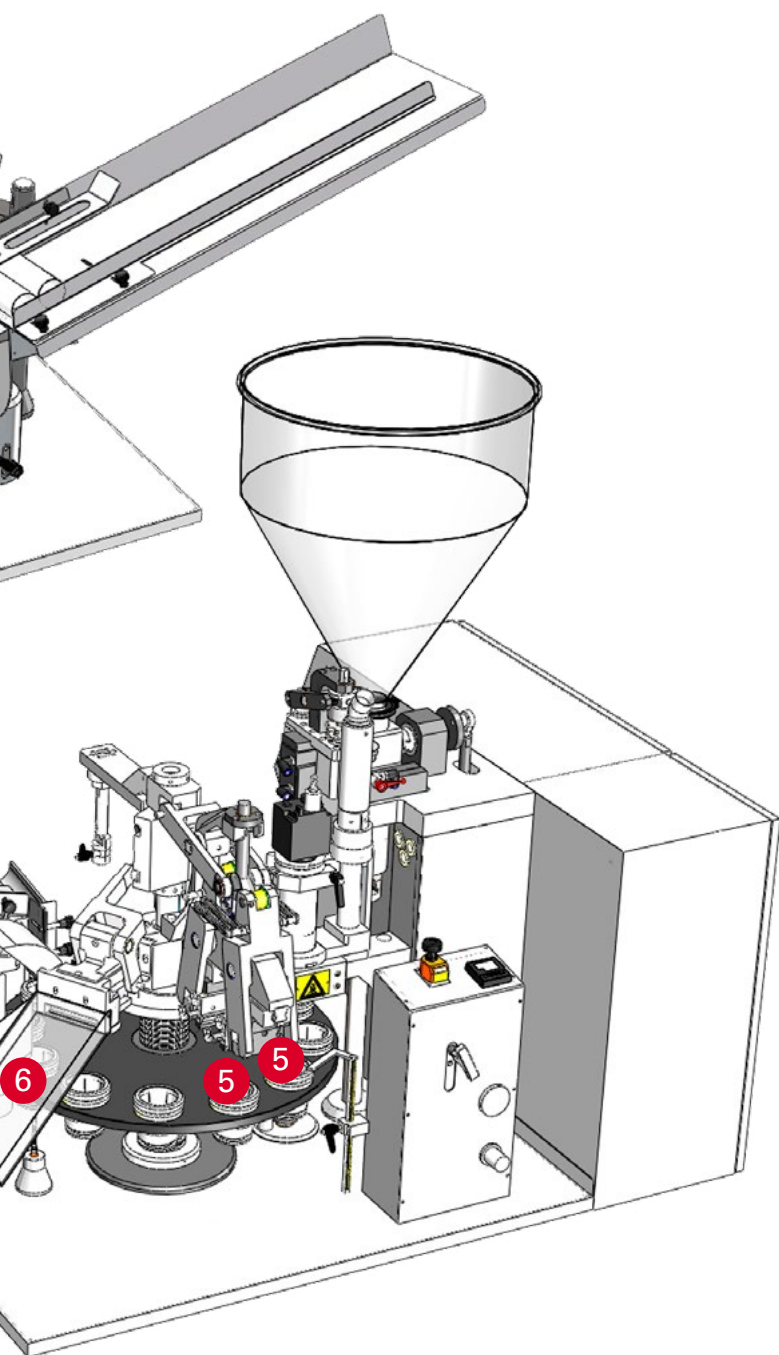
2 Folds



4 Folds



Saddle fold



### 6. Trimming station

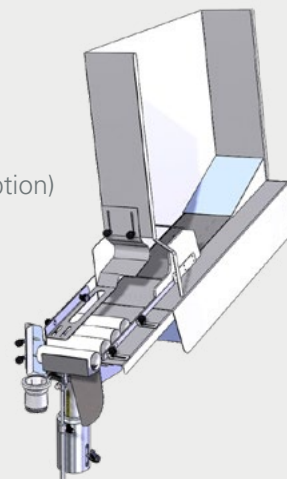
For perfect finishing.  
No adjustments needed for the cutting blades

### 7. Ejection

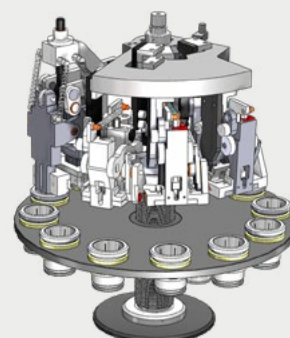
Tail first (option for cap first)

### Tube feeding

Tube feeder 1 box (option)

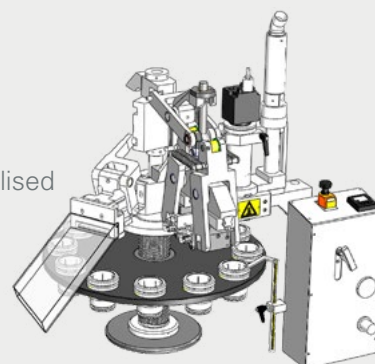


### Closure unit METAL



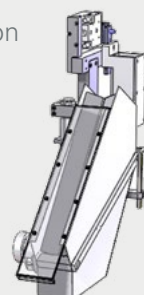
### Closure unit HOT-AIR

For plastic & metallised  
plastic tube

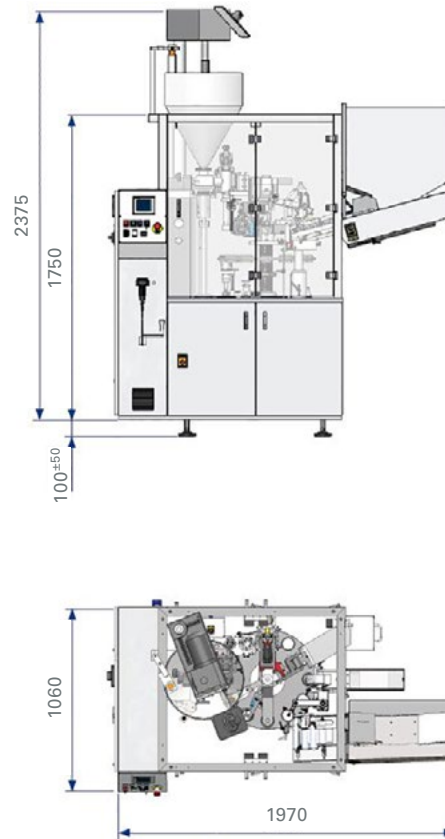
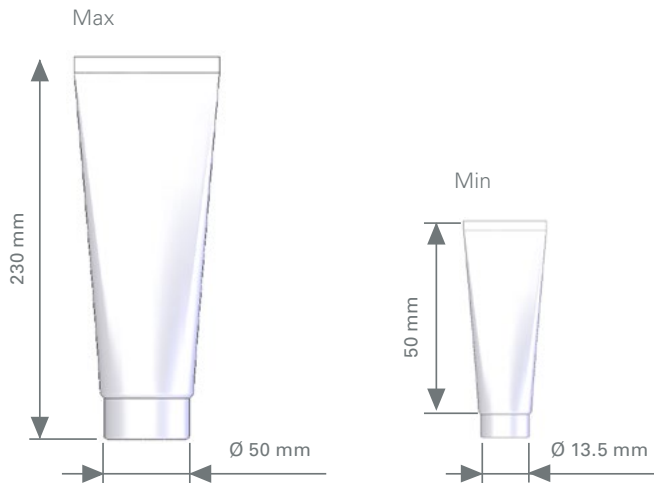


### Ejection

Tube reversal ejection  
& defective tubes  
rejection (option)



# TECHNICAL CHARACTERISTICS



## 1. Change over time:

- Changing the filling assembly for a second filling assembly in 2 minutes
- Format change in 10 minutes

## 2. Technical features:

- Automatic tube loading by inclined plane and loading Vee
- Automatic tube orientation (stepper motor), cell parameter adjustment on the display
- Adjustable precision volumetric dosage (+/- 0.5%)
- Stainless steel guards
- Speed adjustment potentiometer on the display
- Filling from the bottom of the tube
- Shut-off cutting nozzle for stringy products
- Fully mechanical drive
- BPF – CGMP machine
- Sound level less than 80 dbA at 1 metre
- SIEMENS colour touch screen
- SIEMENS PLC
- Safety: complies with CE standards

## 3. Energy table:

Energy sources	Metal	Plastic
Compressed air	20 Nm <sup>3</sup> /h	30 Nm <sup>3</sup> /h
Pressure	6 bar	6 bar
Water	/	200 l/h
Electrical	1,5 kW	4,5 kW

## 4. Tube dimensions:

- From Ø 13.5 mm to Ø 50 mm
- Up to Ø 60 mm in option
- Length 50 mm to 230 mm (including cap)
- All cap types

## Main options:

- Servo-driven lift at filling
- Automatic tube feeder for 1 box
- Oval tubes handling
- Dust extraction before filling
- Filling in controlled atmosphere
- Filling control
- Direct bulk connection
- Jacketed hopper
- Stirrer with fixed and variable speed
- Hopper level control
- Code reader
- Ink jet or laser coding
- Shape seals or round corners
- Tube reversal ejection (cap first)
- Rejection of defective tubes
- Nitrogen flush
- IQ/OQ documentation

*These data are indicative and can be subject to modification without prior notice.*



# coesia

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- **Advanced automated machinery and materials**
- **Industrial process solutions**
- **Precision gears**

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