

COTTON SWAB MACHINE

GENERAL DESCRIPTION

The CF1 cotton swab manufacturing machine is the result of years of research and development at Strema.

Excellent reliability and production capacity, together with the outstanding quality of the finished product, are the reasons why CF1 is acknowledged world-wide as the leading machine in this field.

CF1 has been designed to meet the most demanding requirements from manufacturers of:

- Cotton swabs for ear care & hygiene (standard, baby, safety, etc).
- Cotton swabs for cosmetics.
- Swabs for industry.
- Swabs for medical applications.



TECHNICAL SPECIFICATIONS

SUBSYSTEM	STANDARD	OPTIONS
Configuration	<ul style="list-style-type: none"> ▪ Process moves from left to right facing the machine (as in picture). Right version. ▪ Epoxy painted body, color gray RAL 7032. 	<ul style="list-style-type: none"> ▪ Left version. ▪ Body in customer's specified colours. ▪ Body in stainless steel sheet.
Stick Feeder	<ul style="list-style-type: none"> ▪ Capacity 5 stick boxes on one row. ▪ Lever for manual on-off control of stick supply. ▪ Signalling for minimum level in stick feeder. 	<ul style="list-style-type: none"> ▪ Capacity 2 boxes on two rows for mixing colours. ▪ Capacity 10 boxes on two rows for mixing colours. ▪ Switch for on-off control of stick supply. ▪ Automatic anti-clogging device. ▪ Detector for missing sticks on chain.
Stick gripping Tip-fusing unit (for plastic sticks)	<ul style="list-style-type: none"> ▪ Manual or automatic on-off operation. ▪ Adjustable thermostat with display. ▪ Detector for failure of heating elements. ▪ Melting limiting device when the machine is off. 	
Glue unit (for non-plastic sticks)	<ul style="list-style-type: none"> ▪ Revolving disk type. ▪ Adjustable glue skimming device. ▪ Manual or automatic on-off operation. 	
Cotton feeder	<ul style="list-style-type: none"> ▪ Differential speed double roller couple. ▪ Knob for fine setting of cotton supply. ▪ Photo-electric detector for interruption in cotton sliver feed. ▪ Vacuum pump for continuous cotton feeder cleaning. 	
Head forming	<ul style="list-style-type: none"> ▪ Belt-based stick rotating device. ▪ Brass forming plates. ▪ Fixing agent peristaltic pumps with adjustable flow rate and switch for manual or automatic on-off. 	<ul style="list-style-type: none"> ▪ Brass forming plates, open type.
Drying	<ul style="list-style-type: none"> ▪ Fan with heating element. ▪ Adjustable thermostat with display. ▪ Diffusion plenum. 	
Transfer to packaging	<ul style="list-style-type: none"> ▪ Dual-belt transport. ▪ Comb-sucker for maximum 40 sticks per layer, operated by dedicated vacuum pump. ▪ Comb-sucker on-off switch. ▪ De-ionizer device against static electricity. 	<ul style="list-style-type: none"> ▪ Chain transport. ▪ Double format comb-sucker max 20+20 ▪ Detection and disposal of rejects.
Power and control system	<ul style="list-style-type: none"> ▪ Main motor, variable speed, operated through inverter. ▪ Maximum torque safety feature. ▪ Speed setting knob and display. ▪ Manual advancement of chain by hand wheel during set-up or fine tuning. ▪ PLC with ladder logic programming. ▪ Light indicating cut-out of thermal overload switches. 	<ul style="list-style-type: none"> ▪ Remote diagnosis via phone line.
Packaging interface	<ul style="list-style-type: none"> ▪ Set for operation with any packaging machine. ▪ Automatic and manual step advancement of the packaging machine (new loading cycle). ▪ Selector for setting the number of layer/box. ▪ Counter of boxes manufactured, with display. ▪ Safety blocking. 	

FEATURES:

Production Capacity

The production capacity of the CF1 machine ranges from 200 to 2500 pcs/min. The upper limit applies to standard ear-cleaning cotton swabs.

Materials

- Stick
- Types: polyethylene, polypropylene, polystyrene, paper, wood, corn starch
- Dimensions: length 72 - 160 mm; diameter: 1.8 - 4.0 mm.

Fiber

- Types: 100% cotton, cotton-rayon blend or mixture with rayon.
- Format: sliver from 1.2 to 4.0 g/m.

Accessories

- Turntable for manual or automatic picking-up, boxes, blisters, etc.
- Additional formats for the comb-sucker (single or double).

- Protection cabin.
- Unit for flat tip format.
- Additional forming plates for different tip shapes.

Cotton swab packaging

CF1 can be used with all cotton swab packaging machines manufactured by Strema and other suppliers

Dimensions and weight (without turntable)

- Installed L2310xW550xH1525 mm; weight 720 kg.
- In wooden box for shipping: L2900xW850xH1800 mm; weight 870 kg.

Continuing improvement policy

It is Strema's policy to pursue the continuous improvement of all its products. As a consequence, variations from data shown above may occur.