

SUPERDRY COTTON SWAB MACHINE

GENERAL DESCRIPTION

The CF3 cotton swab manufacturing machine is derived from CF1, based on years of research and development at Strema and acknowledged world-wide as the leading machine in this field.

CF3 was developed for those manufacturers who need a very low moisture content in the product, for reasons related to their packaging process or specific hygiene requirements:

In these cases the CF1 drying facility needs to be upgraded. Strema has identified Infrared Heating Technology as the most sensible approach to achieving higher performance in drying the swabs.

The result is a machine with a longer drying section, containing a set of Infrared heat sources. Moisture content is thus reduced to only a fraction of what otherwise be possible.

CF3 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 the 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"> ▪ Infrared heating elements ▪ Heating elements retract during start-up and shut-down to ensure sticks do not melt 	
Transfer to packaging	<ul style="list-style-type: none"> ▪ Chain transport. ▪ Comb-sucker for maximum 40 sticks per layer, operated by dedicated vacuum pump. ▪ Comb-sucker on-off switch. 	<ul style="list-style-type: none"> ▪ 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. 	



- up of boxes, blister, 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 L4810xW550xH1525 mm; weight 1080 kg.
- In wooden box for shipping: L5400xW850xH1800 mm; weight 1460 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.

FEATURES:

Production Capacity

The production capacity of the CF3 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-