



Coldtech

Inspired by Innovations



CUP & CONE FILLING MACHINE

COLDTECH FILLING MACHINE

The automatic filling line which COLDTECH offers its customers can fulfil all production requirements; from filling cups of various sizes to the production of cones of different dimensions, as well as bulk and family packs with personalized decorations and finishes.

In either **LINEAR** or **ROTARY** versions, there is always a model suitable for the space available in the factory. The strength of these machines lies in their versatility, production efficiency, design criteria as well as the attention to hygiene and the ease of maintenance.



COLDTECH FILLING 12 LINE TO 18 LINE

Automatic filling machine for ice-cream cups, cones and in bulk from 1 to 6 rows according to container dimensions. The mechanical capacity ranges from 20 - 50 strokes per minute; with a production capacity from 2,400 to 18,000 pcs/hr.

The basic machine, completely constructed in stainless steel, is equipped with a linear tray conveyor on which all the automatic working stations are mounted, from distribution and loading of the container to the ice-cream dosing and filling with decorations of different shapes. Special nozzles are used according to individual requirements.

They have an adjustable rotary movement to create special effects, as well with a topping station for liquid chocolate, dried nuts or cocoa powder.

Also the closing station with lids can be adjusted to specific requirements.

The electronic movement group is of the intermittent type and lubricated for life.

The main vertical movements of the stations are electronically driven whereas the secondary movements are pneumatically driven.

The timing of the mechanical and pneumatic movements is obtained using a PLC, which can be adjusted without stopping production.

In addition there is the possibility of memorizing the different product sizes which can then be easily recalled when necessary.

The waterproof control panel of type "Touch Screen" is made of stainless steel I 304 and located on the side of the machine.

Each station is independent and can be switched on and adjusted from the control panel, from which it is also possible to control the production speed as well as make other changes to production parameters.

The changing of the trays is easy and rapid and no special tool is required.

The auxiliary electrical circuit operates at 24V in conformity with ISO safety standards.

IN LINE VERSION

A 2, 3 or 4-row automatic filler production line system (for the linear version) or 1, 2 or 3-row (for the rotating version) for the dosing and filling of stackable ice-cream cups, cones and tubs with ice cream and/or sherbet. Mechanical capacity: 5/25 strokes per minute.

The outstanding characteristic of the machine is the capability of diversifying the various types of production. By simply entering three data parameters on the control panel: the quantity of ice cream exiting the continuous freezer, the capacity and height of the container, and the machine will automatically configure the movement of the dosers. The movement of the trays is obtained using a brushless motor.

The basic machine is supplied for one container format with relative stackable cover.

The capacity of the containers can vary between approximately 250 cc and 5,000 cc (the sample containers and their covers must be sent to COLDTECH for approval of design and for final testing).

Operation is guaranteed by means of an electronic variable-speed motor and a non-lubricated positioning box. All basic movements of the machine are electronically synchronised and programmable by a PLC.

Each work station is independent and actuated from the control panel via a digital display.

The positioning of the containers and covers is pneumatic.

The filling of the ice cream occurs by phased dosers. Further stations can be added on request for the distribution of chopped nuts or decorations.

The change of format of the different containers is very simple because the stainless steel support of the containers can be easily removed. Even the sectors in stainless steel are removable to permit easy access to the stations. Furthermore, other types of containers can be planned, thereby increasing the possibility of filling containers with different formats.

The easily-cleaned Plexiglass panels are an integral part of the machine's structure. A safety system is incorporated which stops production when a door is opened.

AVAILABLE STATIONS ON LINEAR VERSIONS



Container feeding station



Cone calibration station and chocolate spraying



Ice cream dosing station



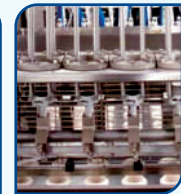
Chocolate topping station



Chopped nuts distribution station



Covers Positioning station



Pressing/crimping of lids (Only for cones)



Finished Product ejection station

ROTARY VERSION

An automatic, 1-row rotating filler production line for cups and cones. Mechanical capacity: 25/68 strokes per minute.

A large rotating 700 mm diameter plate in stainless steel permits easy access to the 12 work available stations. These stations offer an ample production choice between cups, cones, containers and buckets with a maximum diameter of 110 mm.

The basic machine is constructed entirely in stainless steel. The rotating plate is manufactured in one piece and its smooth action is guaranteed by a variable-speed motor and a lubricated-for-life, electronic, intermittent movement unit.

All basic movements of the machine are mechanically synchronised via a cam, whilst secondary movements are actuated pneumatically.

The standard machine is supplied with:

- A set of rings for the format of cups
- A set of rings for the format of cones

and is composed of the following stations:

- Cups positioning station
- Cones positioning station
- Paper cone calibration station
- Chocolate spraying station
- 1 or 2 colour ice cream dosing station
- Chocolate topping station
- Chopped nuts distribution station
- Cover positioning station
- Crimping/fixing cover station
- Finished product ejection station



Ejection



Size changeover



Tubs dispenser

	3000 Pcs /hr.	6000 Pcs /hr.
Model No.	SUPER C PLUS.	SUPER JUMBO.
Type	Rotary, Mechanical Electric motor driven (1Hp).	Rotary, Mechanical Electric motor driven (1Hp).
Packing	Ice cream Cup&cone.	Ice cream Cup&cone.
Productive rate	3000 Cups&Cones per hour.	6000 Cups & Cones per hour.
Cup size	40ml, 50ml, 80ml, 100ml Cup&Cone.	40ml, 50ml, 80ml, 100ml Cup&Cone.
Over system	Provision had made in the machine to handle Different size of cups & cone by repositioning a Few Components and also by replacing the Cone & lid Adopters.	Provision had made in the machine to handle Different size of cups & cone by repositioning a Few Components and also by replacing the Cone & lid Adopters.
No of station	Twelve.	Sixteen.
Drive/Operation	Mechanical motor driven indexing system with Pneumatically operated devices.	Mechanical motor driven indexing system with Pneumatically operated devices.
Filling system	Pneumatically time based filling.	Pneumatically time based filling.
Cup Regulation system	Pneumatically Operated cup regulation system With vacuum draw.	Pneumatically Operated cup regulation system With vacuum draw.
Lid Placement	Pneumatically Controlled lid regulation system With vacuum holding.	Pneumatically Controlled lid regulation system With vacuum holding.
Cup ejection	Pneumatically Operated cup ejection system.	Pneumatically Operated cup ejection system.
Cup discharge	Pneumatically Operated dragger system.	Pneumatically Operated dragger system.
Indexing system	Cam indexing system with Bonfiglioli geared Motor to have 12 indexing per revolution.	Cam indexing system with Bonfiglioli geared Motor to have 16 indexing per revolution.
Control System	PLC based circuit with HMI for the complete Operation & regulation of functions.	PLC based circuit with HMI for the complete Operation & regulation of functions.
System	Pneumatic.	Pneumatic.
Pressure	6 kg/cm ² .	6 kg/cm ² .
Compressor capacity	7.5 HP.	10 HP.
Power supply	3 phase 440V.AC. Control circuit 24 VDC.	3 phase 440V.AC. Control circuit 24 VDC.
Power consumption	0.75 KW.	0.75 KW.
Power supply	3 phase 440V.AC. Control circuit 24 VDC.	3 phase 440V.AC. Control circuit 24 VDC.
Power consumption	0.75 KW.	0.75 KW.
Material of Construction	Aluminum / stainless steel components with SS Steel metal outer body. Product contact parts are in SS 304 quantity material.	Aluminum / stainless steel components with SS Steel metal outer body. Product contact parts are in SS 304 quantity material.
Finish	All parts other than SS will be powder coated.	All parts other than SS will be powder coated.
Net Weight	415 kg.	845 kg.
Overall dimensions	1380mm (L) x 1125mm (W) x 1725mm (H).	2000mm (L) x 1870mm (W) x 1995mm (H).

(*) Samples of containers and lids must be sent to COLDTECH for approval. All data, technical information, photographs, illustrations and statements, reported in this publication are for general information only and are subject to change without notice. Any drawing or data contained shall remain the property of COLDTECH and unauthorized use thereof is prohibited.