

WHITE CHEESE PLANT



Cup filling and sealing machine



Cup filling machine for white cheese/ UF feta cheese

For filling UF retentate or recombined cheese milk mixed with rennet into cups under ultra clean conditions.

The plastic cups are placed in the cup magazines from where they are dispensed onto the filling conveyor, which will move them stepwise under the slip spray station, the filling station, under the antifoam spray and into the pushover station at the inlet of the coagulation conveyor. The coagulation time depends on the type of cheese to be produced but is normally from 20 to 30 minutes.

At the end of the coagulation conveyor the cups will be moved row by row to the transfer conveyor leading to the inlet of the Rot-O-Min packing machine.



In the packing machine, the cups with the now coagulated cheese will be moved to the following stations:

- Membrane dispenser, where a sterilized membrane is placed on top of the coagulated cheese.
- Dry salting unit, dosing an adjustable quantity of fine salt on the foil.
- Lid dispenser, dispensing a sterilized plastic foil on the cup and point sealing it in order to keep it in position during the move to the heat sealing station.
- Heat sealing, for complete sealing of the lid material.
- Date coder, for ink coding on top of the lid material.
- Cover lid dispenser (optional) for applying a snap-on lid on top of the plastic foil lid.
- Lift and transfer station, moving the cups to the discharge conveyor.
- Discharge conveyor transporting the cups to the packing area.

Cup filling station with drip free nozzles.



Primodan has delivered more than 60 white cheese plants worldwide to clients like Arla Foods, Lactalis, Almarai, Sütas, Ülker, Pinar and many other companies. Our expertise covers not only the filling lines but also the process and recipes for the production of white cheese, whether based upon an Ultra Filtration (UF) process or recombination of powder milk.

Hygienic design

The design ensures a hygienic production under ultra clean conditions of white cheese in consumer friendly packages such as plastic cups.

Efficient – high output with minimal manpower

The plants design allows production of 2.5 tons of cheese / hour with only a few operators.

GDL

When producing cheese where the fermentation is not obtained by adding culture to the milk but by Glucono Delta - Lactone (GDL) acidification – the membrane dispenser and dry salt station are excluded from the above description. Optionally a brine dosing station can then be installed instead of the dry salting unit.

Flexibility

The plant can in its most advanced version automatically change from one cup height to another.



Mixing module.

Add-on features

A series of optional equipment can be added to the Primodan filling machines for white cheese depending on the hygienic level and which products the machine should handle. The features which can be added to this machine includes a wide range of options e.g. buffers for the cups and snap on lids for 20 minutes buffer time, UV-C treatment or Pulsed Light sterilization of cups, UV-C treatment of sealable lids, Primoreels foils on reels solution, HEPA sterile air filter cabinet, Vision check for correct placement of foils and many other features.





Technical

Capacity:	Up to 6,000 cups/hour
Maximum cup dimension:	160 x 120 mm
Pneumatic requirement:	Minimum 6 bar
Electrical consumption:	Approx. 12 kW
Materials:	Stainless steel / ionized aluminium
CE certificate / EU norm	

Machine

Cup dispenser with UV-C cup sterilization	Sealable foil dispenser with UV-C sterilization
Filling unit	Heat sealing
Coagulation tunnel for 20 min.	Cover lid dispenser
Membrane dispenser with UV-C sterilization	Cover lid press on unit
Dry salt dispenser	Up/Out

Options

- Mixing module for rennet, anti-stick and anti-foam preparation
- Brine dosing for GDL type white cheese and acidified cheese
- Cup buffer – 20 min.
- Cover lid buffer – 20 min.
- Extension of coagulation tunnel up to 30 min.
- Cutting of the cheese in the cups into cubes or slices
- MAP (Modified Atmosphere Packaging) by inert gas injection into the headspace
- Layered filling
- Automatic carton/tray packing