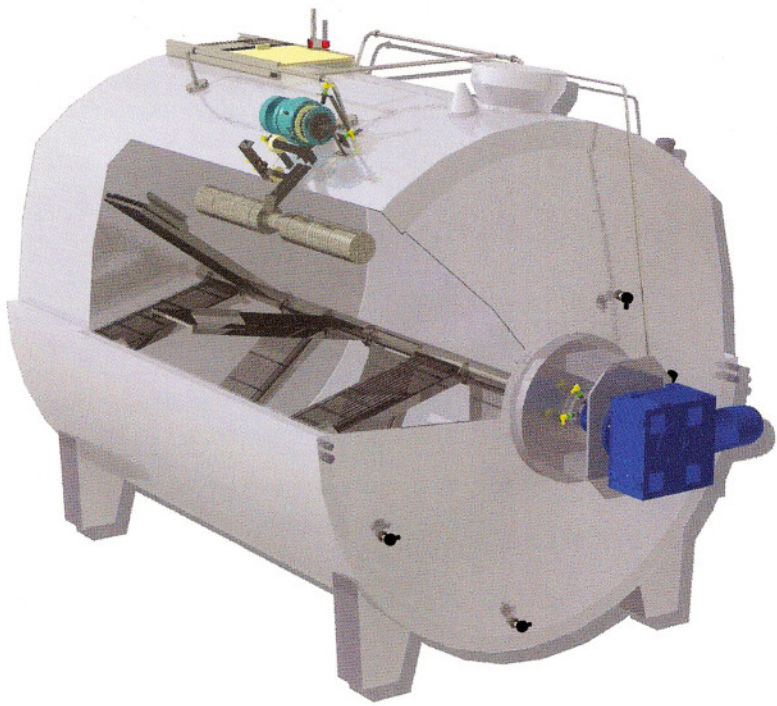
Tetra Tebel OST®

Horizontal tank for curd making



Application

The Tetra Tebel OST is a horizontal tank for the production of curd, for most types of cheese. It is designed for filling of cheese milk, mixing of ingredients, coagulation of milk, cutting of coagulum, stirring of the curd/whey mixture, whey take-off, heating and/or cooling of the curd/whey mixture, cleaning in place and automatic or manual control of the process.

Highlights:

- Excellent cheese quality.
- Even curd size distribution.
- Low fat and fines losses.
- Very strong reliable and quietly operating drive unit.
- High standard of hygiene.

Working principle

The milk (and in line added starter) is fed into the tank through the bottom (or optional top) inlet and gently stirred by the combined stirring and cutting tools. After rennet addition the milk rests to create a firm coagulum to be cut by the sharp knifes of the cutting tool. The speed of the tools is controlled between 1 and 10 rpm.

When the curd is cut to the required grain size the rotation of the tools is reversed. By rotating the opposite way the blunt sides of the knives stir the curd and whey mixture to avoid sedimentation.

A tubular whey strainer with pivoted pipe connection is suspended from the tank top. The strainer is immersed just under the liquid level for efficient whey drainage.

A tank without whey strainer is also available: Tetra Tebel OST-CH.

Tetra Pak

protects what's good™

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Hot process water can be fed directly into the tank. Alternatively the curd/whey mixture can be indirectly heated by adding hot water or steam to the tank jacket. The tank is emptied through the outlet at the bottom.

The curdmaking process is controlled from the control panel placed adjacent to the manhole on top of the tank.

The tank can be cleaned in place by means of rotating spray nozzles and a connection to the shaft seal housing.

Capacity/Range

The Tetra Tebel OST is available in the following sizes (nominal filling volume):

3 000 – 8 000 l (in steps of 1 250 l)
10 000 – 30 000 l (in steps of 2 500 l)

Standard scope of supply

- Horizontal cylindrical body with slightly conical ends.
- Heating jacket on lower half of the cylindrical section.
- Whey strainer with motor and gearbox (not in the Tetra Tebel OST-CH version).
- Motor with frequency converter for cutting/stirring tool.
- Internal lighting.
- Steam connection.
- Manhole with sliding door on top position.
- Solenoid valve box.
- One level electrode (min).
- Temperature electrode.
- Air vent.
- CIP connection, piping and spray nozzles.
- Siemens based control system.
- MCC panel.

Options

- Top milk inlet.
- Remote controlled bottom valve with torque cylinder.
- Connection and spray pipe for indirect heating/cooling with water.
- Extra level electrode.
- Non standard length of legs.
- Platform with stairs.
- Allen Bradley based control system (Tetra Tebel-CH)
- Non-standard voltage and frequency.
- Raised jacket for faster heating.
- Rennet nozzles or distributors.
- Rennet distribution unit with hopper and distributors.
- Insulation for double jacket.
- End wall whey outlet (Tetra Tebel OST-CH).

Technical data

Tank size, l	3 000 – 8 000	10 000 – 20 000	22 500 – 30 000
Connections			
Milk inlet, curd/whey discharge	4" clamp	4" clamp	NW 125/150
Top milk inlet (option)	2,5" SMS	3" SMS	NW 125
Whey discharge	4" SMS	4" SMS	NW 125
Steam	R 1,5" (4x)	R 2" (4x)	R 2" (4x)
Condensate discharge	100 mm	125 mm	125 (2x) mm
Cleaning (CIP)	2,5" SMS	2,5" SMS	3" SMS
Air	0,25"	0,25"	0,25"
Water, heating/cooling	R 1,5" (4x)	R1,5" (4x)	R 2"

Dimensions and Shipping Data

Size Litres	A mm	B mm	C mm	Load pro leg, kg	Weight net, kg	Weight gross, kg	Length x width x height approx. m
3 000	1 000	2 385	1 085	1 040	1 150	2 200	2,4 x 2,2 x 2,5
8 000	3 000	4 385	1 085	2 450	1 800	3 000	4,4 x 2,2 x 2,5
10 000	1 750	3 350	1 190	3 200	2 800	4 000	3,4 x 3,0 x 3,4
15 000	2 750	4 350	1 190	4 550	3 200	4 600	4,4 x 3,0 x 3,4
20 000	3 750	5 350	1 190	5 925	3 700	5 200	5,4 x 3,0 x 3,4
30 000	5 750	7 610	1 305	6 000	6 000	7 500	7,7 x 3,0 x 3,4