

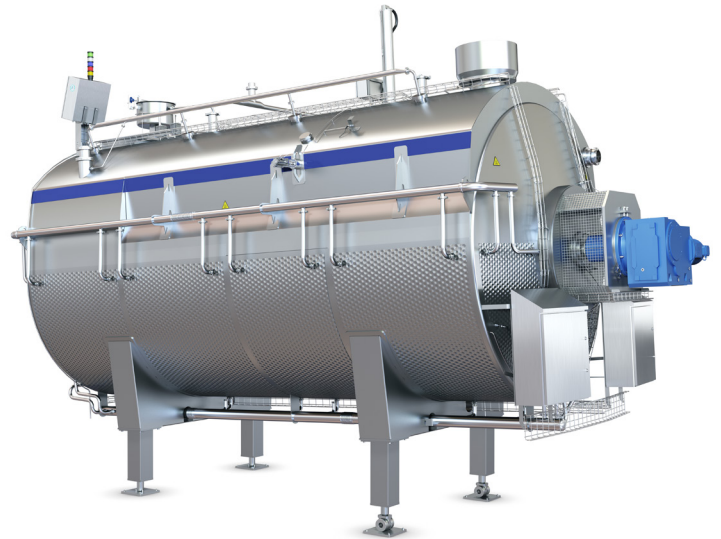


# Tetra Pak® Cheese Vat OST SH6

Horizontal vat for curd making



Design of Tetra Pak® Cheese Vat OST SH6 20 000 I



Design of Tetra Pak® Cheese Vat OST SH6 30 000 I

## Application

The Tetra Pak® Cheese Vat OST SH6 is a horizontal vat for the production of curd for hard/semi-hard cheese types.

The vat has all required functions for a controlled and predictable process, including filling of cheese milk, mixing of ingredients, coagulation of milk, cutting of coagulum, blending, whey discharge, water addition, indirect heating, emptying and CIP (Cleaning in Place).

The Tetra Pak® Cheese Vat OST SH6 is designed to satisfy the requirement to clean after every batch especially for hard/semi-hard cheeses.

Using warm water in a dimple jacket to heat the product allows the operator to control the heating speed and temperature difference. In the recipe the maximum temperature difference between heating medium and product can be set, so the optimal heating rate can be achieved.

## Highlights

- Even curd size distribution
- Low fat and fines losses
- Very strong and reliable
- Controlled heating
- Advanced process control

## Working principles

The milk (and in line added starter) is fed into the vat 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 knives of the cutting tool. The speed of the tools is controlled between 2 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 top of the vat. The strainer is immersed just under the liquid level for efficient whey drainage. The curd/whey mixture can be indirectly heated by circulating hot water through the dimple jacket. The vat is emptied through the outlet at the bottom.

The curd making process is controlled from the control panel placed adjacent to the manway on top of the vat. The vat can be cleaned in place by means of rotating spray nozzles and a connection to the shaft seal housing.

### Standard equipment

- Horizontal cylindrical body with slightly conical ends
- Slope of the vat of 3°
- Heating jacket on lower half of the cylindrical and conical sections (heating rate ~0,6°C/min.)
- Main shaft with welded-on knife frames and side stirring blades
- Frequency controlled E-motor for cutting/stirring tool
- Whey sieve with servo pneumatic drive
- Rennet distribution system with hopper
- Internal LED lighting
- Manhole with non-transparent sliding door on top position
- Air vent
- CIP nozzles with interconnecting pipe work
- Temperature electrode
- Low level electrode and high level electrode
- Curd-whey outlet at 1.000 mm
- Top milk inlet
- Adjustable legs
- Sanitary couplings
- Siemens based control system
- Operator panel
- Control panel
- MCC panel

### Options, mechanical

- 02 Remote controlled bottom valve, type LKB-F
- 07 Content measurement
- 08 Non-standard outlet height
- 21 Coagulation sensor

### Options, automation

- 33 Rockwell (Allen Bradley) control system and operator panel
- 35 Operator panel in non-EU language

### Capacity/range

The Tetra Pak® Cheese Vat OST SH6 is available in the following sizes (nominal filling volume):

- 12 500 – 30 000 litres

### Consumption data

Capacity, litres	12 500 – 20 000	25 000 – 30 000
CIP supply	40 m <sup>3</sup> /h	80 m <sup>3</sup> /h
Electricity	4 kW	7,5 kW
Compressed air	2 NL/h	2 NL/h
Process water*	40 m <sup>3</sup> /h	80 m <sup>3</sup> /h
Heating water**	40 m <sup>3</sup> /h	60 m <sup>3</sup> /h

\* Only applicable when washing water is used.

\*\* Depending on required heating rate and ΔT. Heating water is circulating in closed system.

Values are average and subject to process parameters.

## Dimensions and capacities

Size litres	A mm	B mm	C mm	Load pro leg kg	Weight net kg	Weight gross kg	L x W x H unpacked approx (m)	L x W x H seaworthy case (m)
12 500	2 250	1 200	4 015	3 875	3 000	4 000	4 x 3.3 x 3.7	4.5 x 3.6 x 4
15 000	2 750	1 200	4 515	4 550	3 200	4 200	4.7 x 3.3 x 3.7	5 x 3.6 x 4
17 500	3 250	1 200	5 015	5 225	3 400	4 400	5.2 x 3.3 x 3.7	5.5 x 3.6 x 4
20 000	3 750	1 200	5 515	5 900	3 600	4 700	5.7 x 3.3 x 3.7	6 x 3.6 x 4
25 000	4 750	1 277	6 592	7 650	5 600	6 900	6.8 x 3.3 x 3.7	7.1 x 3.6 x 4
30 000	5 750	1 277	7 592	9 000	6 000	7 500	7.8 x 3.3 x 3.7	8.1 x 3.6 x 4

