



Tetra Pak® Cheese Vat OST SH5

Horizontal vat for curd making



Highlights

- Even curd size distribution
- Low fat and fines losses
- Very strong and reliable
- High standard of hygiene

Application

The Tetra Pak® Cheese Vat OST SH5 is a horizontal vat for curd production of semi-hard cheese types. It has all required functions for a controlled and predictable process, including filling of cheese milk, ingredient mixing, milk coagulation, cutting of coagulum, blending, whey discharge, water addition, indirect heating, emptying and CIP (Cleaning in Place).

Working principle

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. Once 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.

Hot wash water can be fed directly into the vat. For possible temperature correction the curd/whey mixture can be indirectly heated by adding steam to the vat jacket. The vat is emptied through the bottom valve.

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 rotating spray nozzles and a connection to the shaft seal housing.

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Scope of supply

- Horizontal cylindrical body with slightly conical ends
- Slope of the vat of 3°
- Heating jacket on lower half of the cylindrical section
- Main shaft with welded-on knife frames and side stirring blades
- Frequency controlled E-motor for cutting/stirring tool
- Whey strainer with E-motor and gearbox
- Internal LED lighting
- Manhole with non-transparent sliding door on top position
- Air vent
- CIP nozzles with interconnecting pipe work
- Temperature electrode
- One level electrode
- Curd-whey outlet/milk inlet
- Adjustable legs
- Sanitary couplings
- Siemens based control system
- Operator panel
- Control panel
- MCC panel

Options, mechanical

- 01 Top milk inlet
- 02 Remote controlled bottom valve, type LKB-F
- 05 Water pipe for indirect heating/cooling
- 06 Extra level electrode
- 07 Content measurement
- 08 Non-standard outlet height
- 13 Non-standard voltage and frequency
- 18 Rennet distribution system with hopper (available on 10 – 30 kL vats)
- 21 Coagulation sensor
- 22 Cordless whey sieve (available on 15 – 30 kL SH vats)
- 23 Automatic flush (available on 10 – 30 kL SH vats)

Options, automation

- 32 I/O Communication (hardwired communication)
- 33 Rockwell (Allen Bradley) control system and OP
- 35 Operator panel in non EU language

Capacity/Range

The Tetra Pak® Cheese Vat OST SH5 is available in the following sizes (nominal filling volume):

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

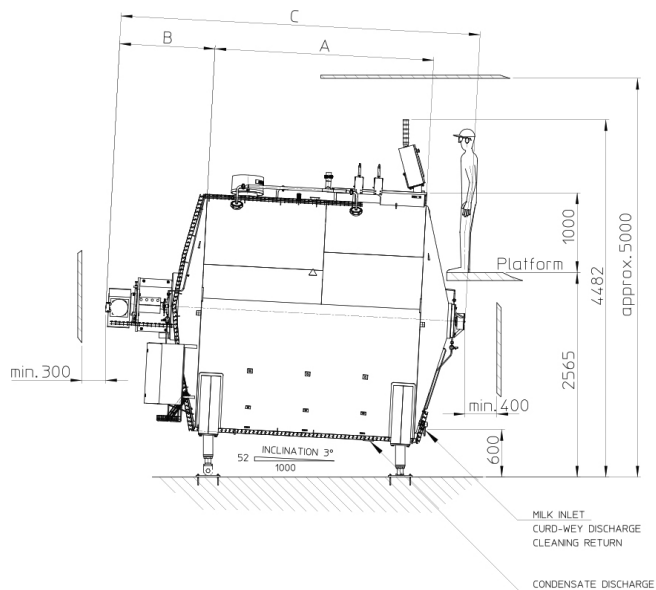
Consumption data

Capacity, litres	3 – 8 kL	10 – 20 kL	22,5 – 25 kL	27,5 – 30 kL
CIP supply	30 m ³ /h	40 m ³ /h	80 m ³ /h	80 m ³ /h
Electricity	4kW	4kW	5,5kW	7,5kW
Compressed air	2 NL/h	2 NL/h	2 NL/h	2 NL/h
Process water*	30 m ³ /h	40 m ³ /h	80 m ³ /h	80 m ³ /h
Steam**	300 kg/h	1 000 kg/h	1 500 kg/h	1 800 kg/h

* Only applicable when washing water is used

** Based on 0.5 bar for 0,6°C/min

Values are average and subject to process parameters



Dimensions and shipping data

Size Litres	A mm	B mm	C mm	Load pro leg	Weight net kg	Weight gross kg	L x W x H unpacked approx (m)	L x W x H seaworthy case (m)
3 000	1 000	1 085	2 395	1 040	1 150	2 200	2.6 x 2.2 x 2.5	2.9 x 2.5 x 2.8
8 000	3 000	1 085	4 530	2 450	1 800	3 000	4.6 x 2.2 x 2.5	4.9 x 2.5 x 2.8
10 000	1 750	1 200	3 515	3 200	2 800	4 000	3.6 x 3.1 x 3.7	3.9 x 3.4 x 4.0
20 000	3 750	1 200	5 515	5 925	3 600	5 200	5.6 x 3.1 x 3.7	5.9 x 3.4 x 4.0
30 000	5 750	1 277	7 592	6 000	6 000	7 500	7.7 x 3.1 x 3.7	8.0 x 3.4 x 4.0

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