



Tetra Pak[®]

Standardization unit S3

Direct in-line standardization of milk and cream fat



Application

The Tetra Pak[®] Standardization unit S3 is designed for automatic in-line standardization of the fat content in milk and cream directly after milk separation, for standardized milk and cream.

Highlights

- Reliable performance with maximum line utilization and uniform product quality
- Minimal cream giveaway, +/- 0.015% on milk fat for significant savings
- SpotOn technology for automatic in-line compensation of separator discharge

Working principle

The system achieves accurate fat content, regardless of variations in the raw milk fat content, by continuously controlling the back pressure of the separator cream outlet in a cascade control system. The raw milk is separated while the skim milk pressure is kept constant by a continuous pressure-modulating valve.

A mass-flow transmitter measures the cream flow from the separator and calculates the fat content. Another flow transmitter measures the flow of standardized milk.

On receiving signals from the transmitters, the computer in the control panel calculates the fat content in relation to set points and flow rates. It then transmits control signals to the cream-flow modulating valve, thereby controlling the fat content, whenever required.

A surplus cream line regulates the flow rate of remix cream into the skim milk line, thereby standardizing the milk.

Basic unit product model

- Mass-flow and flow transmitters
- Control valves, changeover valves, non-return valves and sampling valves
- Pressure gauge
- Control panel in stainless steel with Siemens or Rockwell control system
- Human machine interface – touch screen mounted in control panel
- The unit is prepared for remote operation
- Technical documentation
- All internal wiring and piping
- All components pre-assembled on a stainless steel frame

Selection of options

- Control cabinet with high hygienic design
- Communication with supervisory system
- Uninterrupted power supply (UPS)
- Air cooler with compressor for control panel
- 3A version
- SpotOn technology for automatic in-line compensation of separator discharge



Processing parameters

Raw milk flow rate, (l/h)	5 000 to 50 000
Hot milk standardization temperature, (°C)	45 to 65

Consumption data

Power consumption ¹ , (kW)	0.5
Instrumental air, 600 kPa	200 (NI/min)

* Voltage 200-400 V A C, 1-phase (max variation ±5%), frequency 50/60

Dimensions*

Height (mm)	2 000
Width (mm)	800
Length (mm)	830

Shipping data*

Net weight (kg)	280
Gross weight (kg)	620
Volume (m ³)	8.7

* Options not included