Tetra Pak® In-line Blender B for final syrup

Accurate, high efficiency in-line blending

Application

Tetra Pak® In-line Blender B for final syrup is optimized for accurate, efficient in-line blending of concentrates to final syrup with low product losses and reduced raw material costs. It is fully automated to ensure uniform product quality and uncompromising food safety.

Tetra Pak In-line Blender B for final syrup also gives you the flexibility to achieve high throughput and quick product changeovers. And the unit is easily and efficiently installed in a line solution where it helps to eliminate product losses in an entire line.

Working principle

The Tetra Pak In-line Blender B for final syrup blends concentrates with 4-stream in-line blending to formulate final syrup with a high Brix content (~55 Bx). The unit works under pressure, enabling each individual valve to constantly operate at maximum control accuracy. Automatic mass compensation (AMC) technology, using sophisticated software, ensures uniform high product quality, regardless of variations in incoming ingredients. Instruments continuously regulate the flow of ingredients with high precision. This keeps the process right on target and ensures that the outgoing blend is constant.

Highlights

- Cost-efficient continuous production of final syrup
- Cuts product losses and raw material costs with Brix accuracy, exact dosing and product recovery features
- High throughput and quick product changeovers
- Guaranteed performance on parameters that matter

Product recovery features cut your product losses to an absolute minimum for significant savings on raw material costs:

- Concentrate recovery – recovers concentrate/pre-mix from pre-mix tanks at end of production
- Concentrate recovery IBC – recovers small amounts of valuable concentrates with blow-back function

A constant pressure valve controls syrup feed and water. The blended final syrup is transferred to a large tank that is supplied by the customer. The final syrup can continuously be transferred further down the process line.

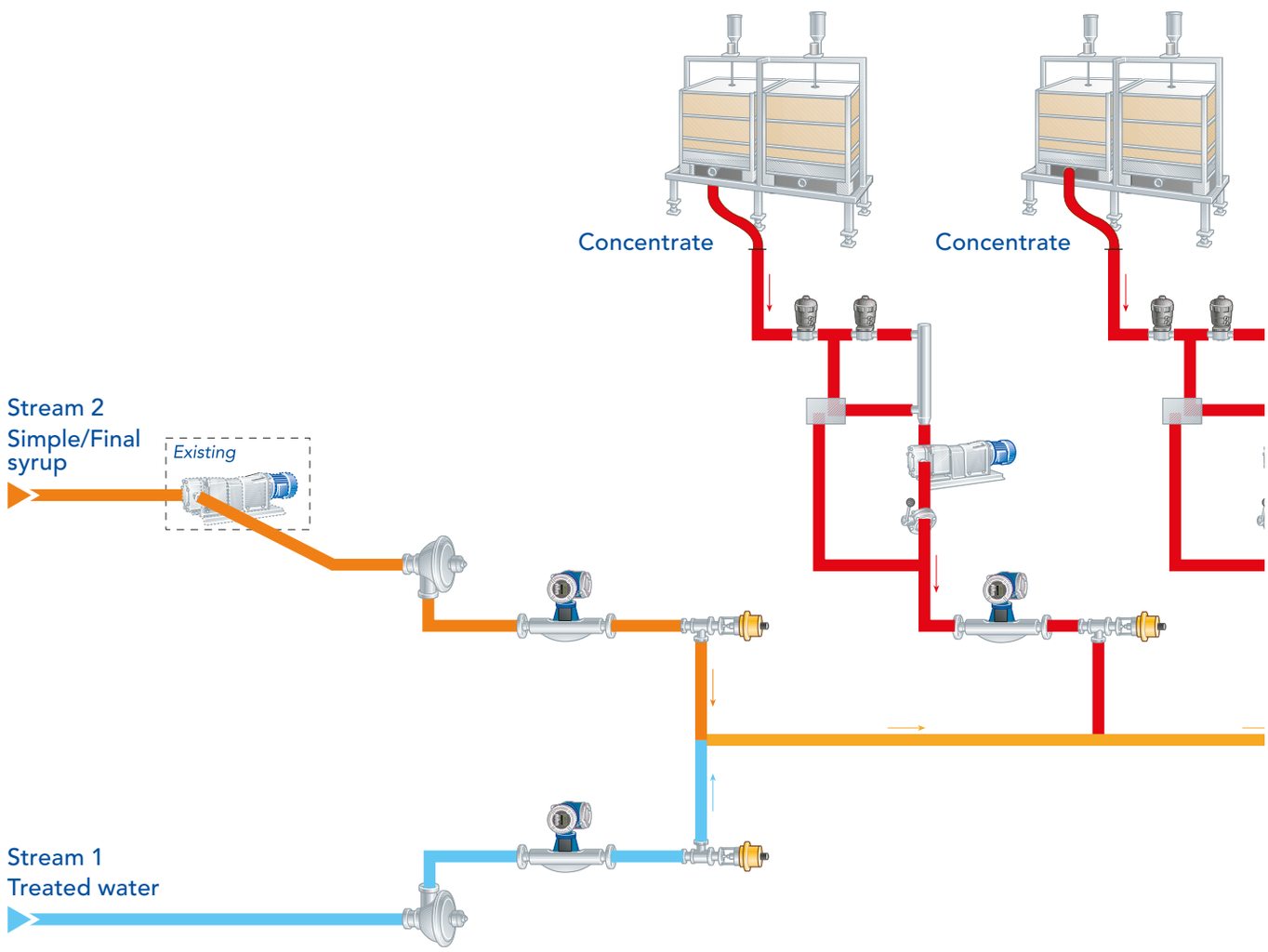
An intuitive, operator-friendly HMI, now with a larger panel, gives a detailed overview of the process and enables easy selection, commissioning and troubleshooting.

Main components

Basic unit

Software:

- AMC technology
- Concentrate recovery
- Standard HMI: B&R 5AP830 21.5, 21.5" full HD TFT
- PLC: Siemens
- Ethernet



Stream 1:

- Stream for treated water
- Equipped with constant pressure valve, mass flowmeter and regulating valve

Stream 2:

- Stream for syrup concentrate
- Consists of constant pressure valve, regulating valve and mass flowmeter, connected to main header pipe

Stream 4:

- Stream for syrup concentrate:
  - Small concentrate (IBC)
  - Handles high acid concentrate

Stream 5:

- Stream for syrup concentrate:
  - Small concentrate (IBC)
  - Handles high acid concentrate

Optional equipment

Special food treatment:

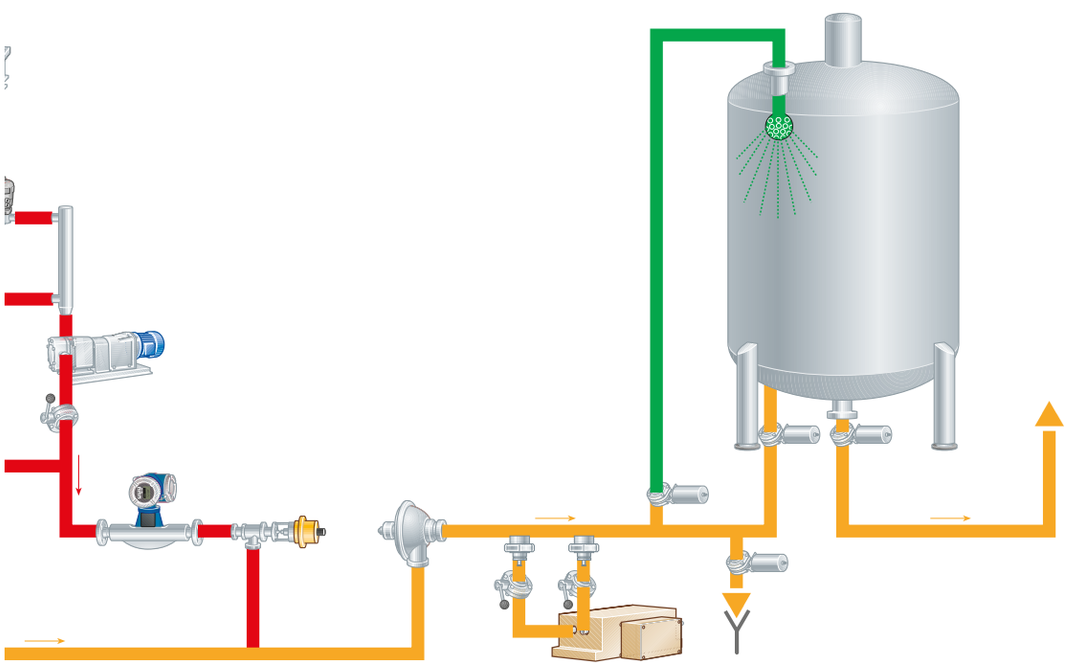
- Water balance tank – The treated water stream is equipped with a break tank (option 9) to eliminate pressure variation in the treated water feed line. A discharge pump will pump the water through a control valve and a mass flow meter, to control the mass flow according to recipe proportions, into the main header pipe.
- Additional stream

Operational efficiency:

- Quality control in-line Brix measurement
- Concentrate recovery IBC

Automation and control:

- Air-cooling for panel
- Relay communication
- Uninterrupted power supply, buffer block 24V DC



Technical data

Capacity

- 8,000 l/h
- 18,000 l/h
- 35,000 l/h

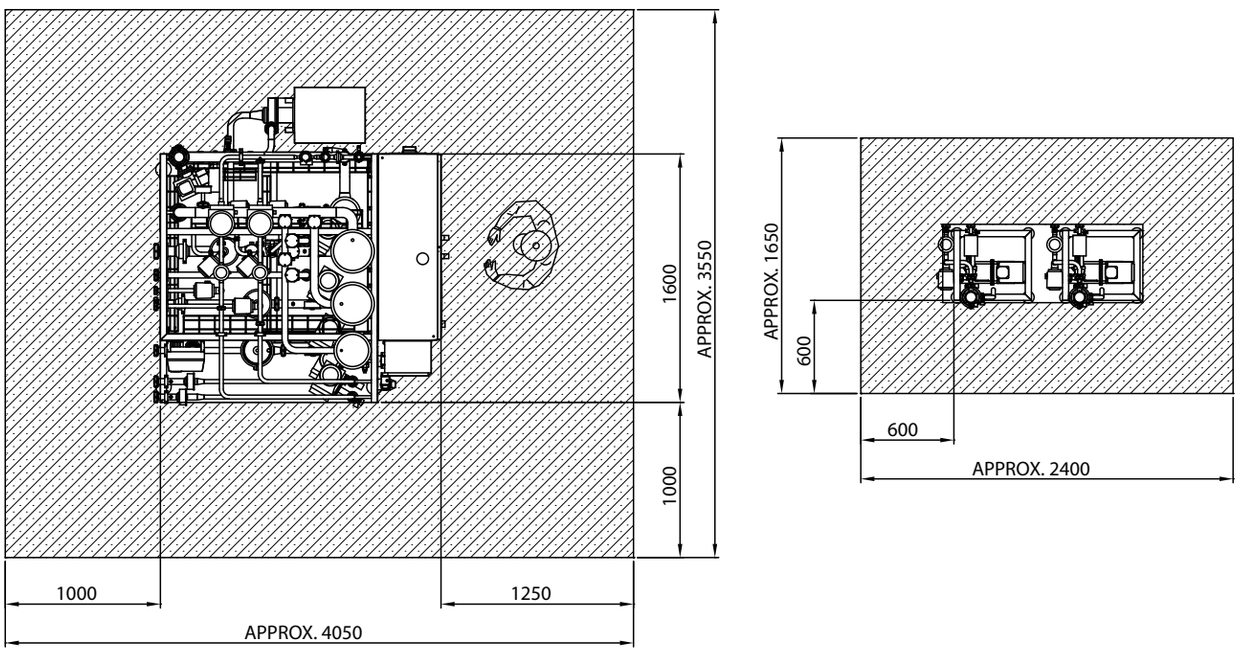
Performance guarantees

• Accuracy, Brix	+/- 0,1
• Precision, Brix	0,025

Consumption data

• Power	6 kW
• Instrumental air	20 Nl/h
• Treated water	6 bar
• Syrup/pre-mix	6 bar
• CIP	6 bar
• Instrument air	6 bar

Layout



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