



Tetra Pak® In-line Blender B for final beverage

Accurate, high efficiency in-line blending



Application

Tetra Pak® In-line Blender B for final beverage is optimized for high precision, in-line blending of a wide range of beverages with low operational and raw material costs. It is fully automated to ensure uniform product quality and uncompromising food safety.

Tetra Pak In-line Blender B for final beverage 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.

Highlights

- Cost-efficient continuous production of final beverage
- Efficient deaeration cuts water and energy consumption for lower operational costs
- Cuts product losses and raw material costs with high Brix precision, exact dosing and product recovery features
- Flexibility to handle a wide range of products – from juice to CSD
- Guaranteed performance on parameters that matter

Working principle

The Tetra Pak In-line Blender B for final beverage blends liquid components to formulate a final beverage. 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.

A number of product recovery features cut your product losses to an absolute minimum for significant savings:

- Production start recovery – takes mix phases at start-up back to Tetra Pak® In-line Blender B for final beverage and automatically concentrates them to correct blend with help of AMC
- Production reject recovery – takes care of all rejects from pasteurizer and filler, eliminating manual handling of rejects
- 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

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

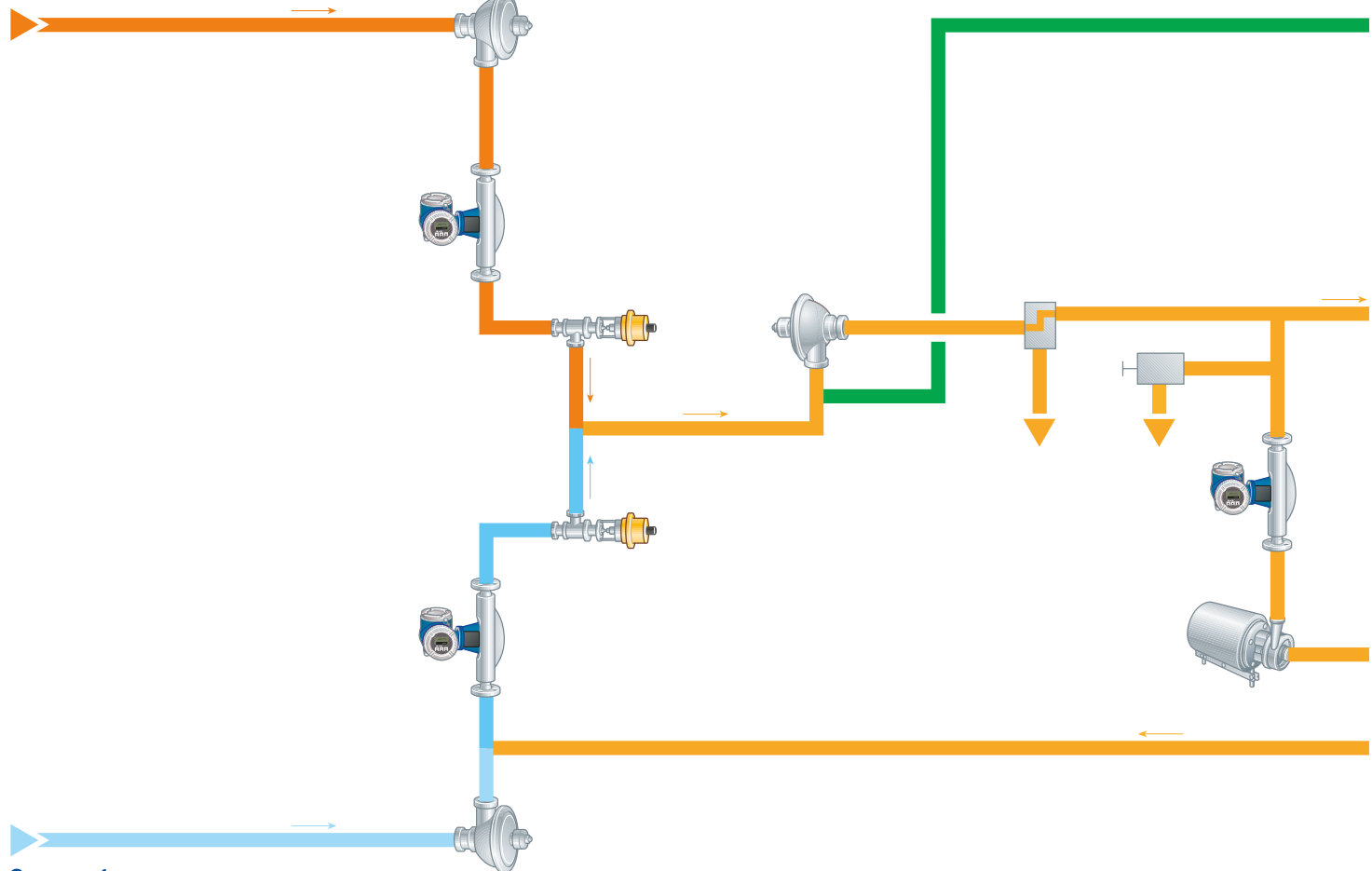
Stream 1:

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

Stream 2:

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

Stream 2
Final syrup



Stream 1
Water

Optional equipment

Operational efficiency:

- Quality control in-line measurement of Brix
- Eco vacuum pump
- Buffer tank – (option 11) dimensioned for reject recovery and enables greater precision. The buffer tank, with stirrer, ensures the blend is consistently homogenous and enables you to produce a wider range of products. A density meter (option 10: quality control in-line measurement) checks the blend and gives input to the AMC technology to keep the process on target.

Product recovery:

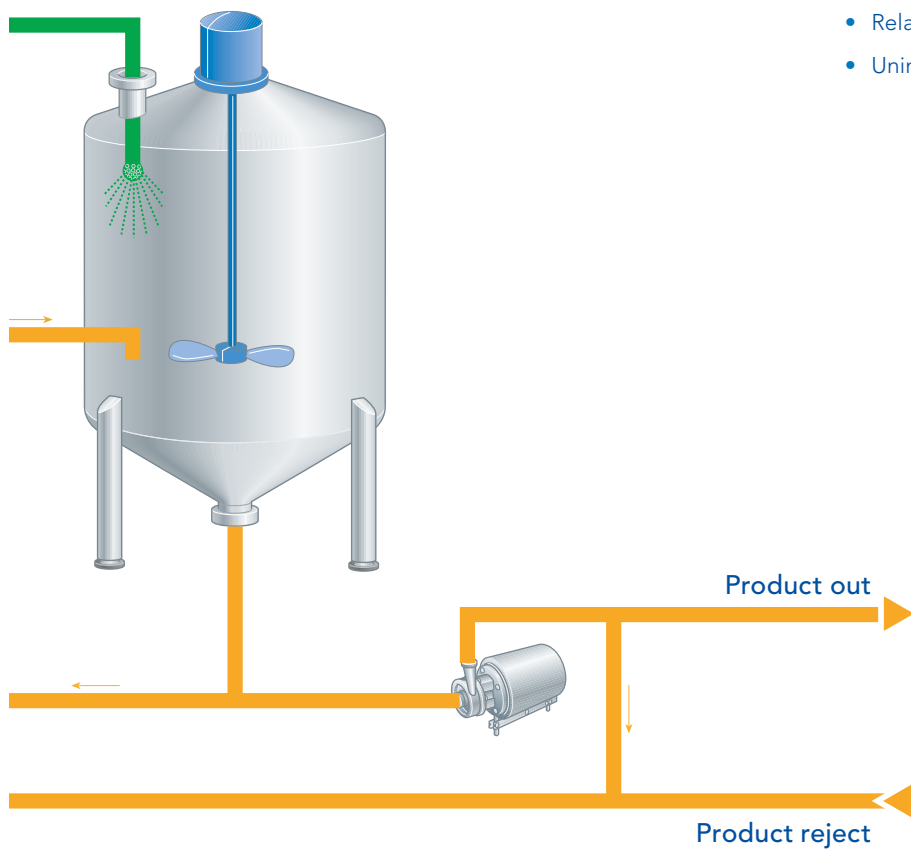
- Production start recovery (only available with Tetra Pak® Pasteurizer)
- Production reject recovery (only available with buffer tank)
- Concentrate recovery IBC

Special food treatment:

- Stream 2 for syrup/pre-mix/juice concentrate:
 - >500 cP
- Stream 3 for syrup/pre-mix/juice concentrate:
 - >500 cP
 - <500 cP
 - Pure fibre
- Stream 4 for syrup/pre-mix/juice concentrate:
 - >500 cP
 - <500 cP
 - Small concentrate (IBC)
- Stream 5 for syrup/pre-mix/juice concentrate:
 - >500 cP
 - <500 cP
 - Small concentrate (IBC)
- Deaerator
- Booster pump
- Bypass of Tetra Pak In-line Blender B for final beverage
- Water balance tank

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
- 55,000 l/h
- 75,000 l/h

Performance guarantees

- Accuracy, Brix +/- 0,03
- O₂ level, ppm 0,5

Consumption data

- Power 7,5 kW
- Instrumental air 20 NI/h
- **Inlet pressure**
- Treated water 6 bar
- Simple/pre-mix syrup 6 bar
- CIP 6 bar
- Instrumental air 6 bar

Layout

