



Tetra Pak® In-line Blender B

Transform your beverage production
with ultra-versatile continuous blending



Application

Tetra Pak® In-line Blender B is used for blending multiple, liquid ingredient streams into a final beverage or syrup for further processing. Tetra Pak In-line Blender B can also be combined with upstream batching system as a beverage blender, to reduce the amount of water to be added in the batching area and with that increase the overall line productivity.

Highlights

- **Keep moving – even during stoppages**
Recirculation loop and a radial jet mixer S deliver highest production reliability and contribute to superior accuracy.
- **Mass compensation**
Automatic mass compensation allows to balance deviations of dry sugar mass inside an ingredient stream by levelling the ingredient and water supply flowrate.
- **Unique recovery function**
Recovery of water used for sterilization or mix phase from pasteurizer into blender during ramp-up, production stops or emptying sequences. Water and gas push functions to reduce losses when emptying or recipe change.
- **Optimized in every aspect**
Avoid ventilation lanterns in ingredient streams and reduce product losses caused by emptying or recipe changeover.
- **Built in expertise**
More than 60 years of experience in delivering solutions to meet hundreds of recipes and thousands of ingredients across all beverage categories leading into one ultra-versatile platform. Technology refinement over decades from first continuous production in the industry for cola drinks up to industry leadership across all beverages.

Working principle

Tetra Pak In-line Blender B centres on a mixing tank equipped with a pump-driven recirculation loop. The recirculation loop collects liquid ingredients from a set of different infeed streams that dose according to the recipe's specifications. The incoming ingredients are blended continuously in the mixing tank. A measuring loop connected to the mixing tank constantly monitors Brix (the dry mass of sugar in the blend) and cascades adjustments to the setpoints of the relevant ingredient streams when needed. A pump transfers the final product (syrup or beverage) from the mixing tank for further downstream processing to a beverage treatment unit, filler or similar equipment. Features such as gas or water push, pasteurizer recovery or optimized piping design reduce losses and maximize production yield, especially during ramp-up, emptying or standby.

Main options

1. Automation

- Valve heads including position feedback, mixproof and safety relevant valves are equipped with feedback as a standard
- Human machine interface (HMI) 22" TFT Siemens

2. Capacity

- 20 000l/h (30-100% speed)
- 40 000l/h (30-100% speed)
- 60 000l/h (30-100% speed)

3. Ingredient streams

- Various combination of up to 10 ingredient streams depending on stream capacity, density and viscosity
- Optional stream buffer tanks on machine skid
- Various options for CIP integration
- Optional streams for IBC connection or streams for minimal dosing volumes

4. Mixing tank size

- Different mixing tank sizes from 450 litres to 6 000 litres depending on application and machine capacity

Water purge

- Water purge functionality (forward and backward push)

Gas purge

- Gas (carbon dioxide, nitrogen or sterile air) purge functionality (forward push)

Pasteurizer recovery

- Functionality to recover water used for sterilization or mix phase from the pasteurizer into the blender

Control panel

Tetra Pak In-line Blender B is controlled by a Tetra Pak® PlantMaster (Siemens) PLC fitted in a control cabinet located on the main module. Optionally, the control cabinet can be equipped with an HMI screen for local control of the machine.

We can deliver the PLC with Rockwell code on request.

Technical data

All parts in contact with the product are made of AISI 316L. The frame is made of AISI 304L. Fittings are executed in DIN 11853 or DIN 11684.

Transition pieces for SMS dimensions on interface connections can be delivered on request.

Electrical power

Control cabinet supply	400 V, 50 Hz
Other supply voltage or frequency available on request	
Compressed air	600 kPa (6 bar)