



# Multiple blender

A blender to serve multiple production lines simultaneously and continuously



## Application

A multiple blender is used to produce final beverages or syrups on more than one production line simultaneously and continuously.

A typical application is:

- Producing two or more types of final syrup or beverage simultaneously

## Highlights

- Continuous recirculation flow ensures stable mixing conditions at any time
- High process reliability and accuracy
- Highly efficient radial jet mixer technology to mix inside mixing vessels
- Handles more than one final product at the same time continuously
- Minimised product losses

## Working principle

The multiple blender has a similar working principle to the continuous soft drink blender, which is a single-line unit.

The multiple blender operates several ingredient streams that feed into a recirculation line connected to the main mixing vessel. Each ingredient stream flow rate is adjusted according to recipe set points.

The system ensures a constant flow on the recirculation line independently of output flow rate. This provides stable blending conditions with the highest accuracy. A continuous °Brix measurement function monitors production parameters and can cascade sugar and water stream adjustments to meet the end-product's °Brix requirements.

The multiple blender's ability to produce more than one beverage at a time means it has one recirculation line for each end-product while sharing some ingredient streams for multiple recirculation lines. The system uses each mixing tank as a buffer to ensure a stable and continuous production flow. It also switches between product recipes to supply the other tank while the first is discharging.

## Main components

- Frame
- Ingredient streams
- Mixing, circulation loops
- Mixing tanks
- Radial jet mixer (RJM)
- Transfer pump

## Technical data

All parts in contact with the product are made of AISI 316L. The frame is made of AISI 304L.

<b>Electrical power</b>	400 V, 50 Hz
	Other supply voltage or frequency available

<b>Compressed air</b>	Main panel 600 kPa (6 bar)
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## Control panel

The multiple blender is controlled by an Allen Bradley ControlLogix or Siemens PLC. This is fitted in a cabinet located on the frame but can be moved away from the module on request.

