



# ALEX™

## Blending

### Application

In the blending system, ALEX™, a blending of two or more liquids is performed. It is used for:

- Blending of high-gravity beer with deaerated water
- Reconstitution of low-alcohol beer
- Blending of beer with adjustment beer
- Blending of soft drink ingredients

### Working Principle

In ALEX™, blending is carried out by continuously controlling the ratio of flows of the constituent liquids, e.g. beer and water. The blending ratio is preselected on the control panel. The microprocessor receives continuous data from the flow meters in the beer and water/beer lines and regulates the control valve in the water/beer line, so that the preset blending ratio is accurately maintained. Alternatively, the operator keys in the known and required properties, such as alcohol content or original gravity of the feed and the end products. The corresponding blending ratio is then automatically calculated and used instead.

Each line has an accurate electronic flow transmitter. In the high-gravity beer line, a manual regulating valve is setting the flow rate. In each additional product line there is an automatic modulating valve controlled by the microprocessor.

The control panel with a PLC controls the plant operation.

Relevant process data displayed:

- Actual and setpoint blending ratios
- Actual and setpoint flow rates
- Accumulated production volume
- Controller settings
- Plant status
- Alarm status

For production the blending ratio and, if required, the total production batch volume are preset by the operator. Operation is then fully automatic and a stop signal is given when the preset production batch is reached.

A fail-safe system is monitoring the operation.



### Benefits

- *Developed in co-operation with the brewing industry*
- *Automatic control*
- *Sanitary design*
- *Robust construction*
- *Compact design*
- *Wall mounting*
- *Outstanding blending accuracy*
- *Versatile and adaptable to different process requirements*
- *Low maintenance*

### Basic Unit

The unit is self-contained and factory preassembled on a frame. In compliance with food industry regulations, all components in contact with the process liquids are made of stainless steel with heat resistant seals. It is designed for CIP.

### Technical Data

Capacity ranges, blended beer, hl/h: 50-150, 100-250, 200-400, 300-600, 500-800

Blending ratio, water/beer flow: 5-50%

Deviation, flow measurement: Less than  $\pm 0.3\%$  of max flow

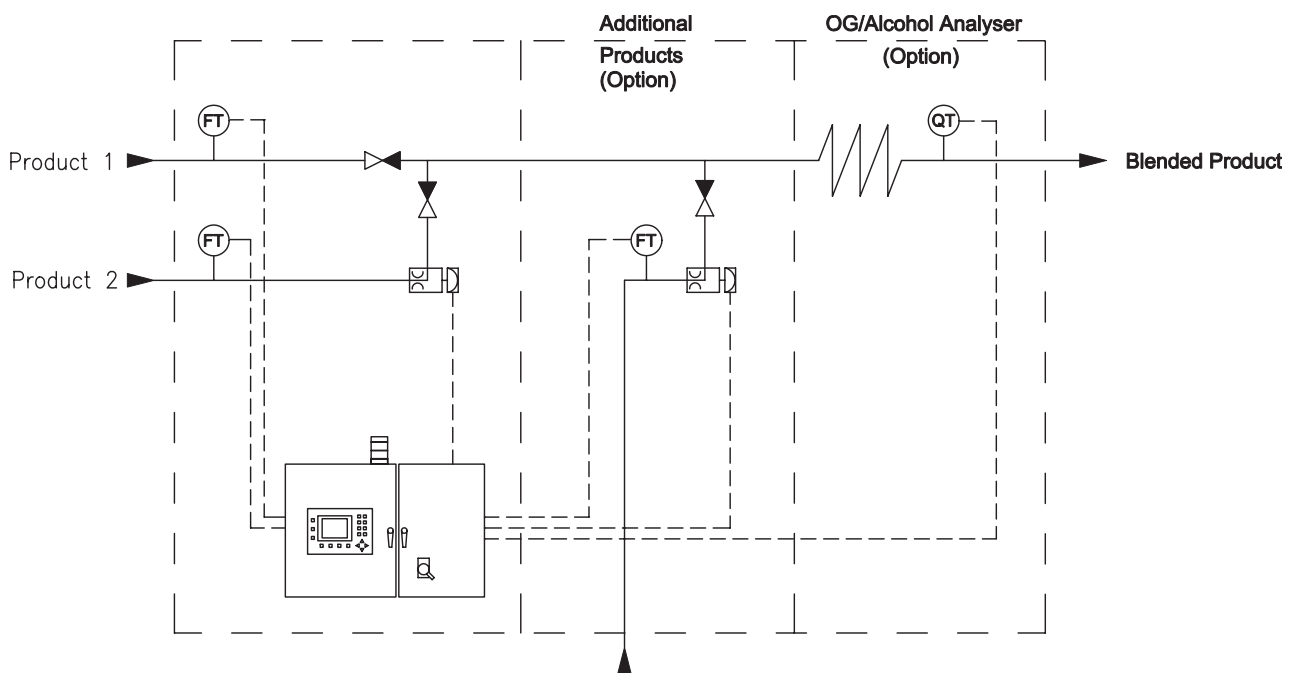
Utility data: Depending on capacity range

### Dimensions

Approximate dimensions and weight depending on capacity range:  
L = 1.5 m      W = 0.5 m      H = 1.0 m  
Weight: 90 kg

### Optional Equipment

- In-line analyzers  
ALEX™ can be equipped with an analyzer for continuous in-line adjustment of the alcohol content and/or original gravity of the beer after blending.  
A Brix meter can be supplied for control of syrup content in soft drinks and other beverages.
- Carbonation control for automatic in-line carbonation of the blended product
- Control of more than two blended liquids
- Floor mounting
- Remote control
- Communication with other control systems



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