



CARBOBLEND™

Blending & Carbonation

Application

CARBOBLEND™ is a process module for blending two or more liquids, with subsequent carbonation. In the beverage industry, it is employed for blending and carbonation of beer, soft drinks and other beverages.

Working Principle

Blending

In CARBOBLEND™, 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 of the end products. The corresponding blending ratio is then automatically calculated and used instead.

Carbonation

CO₂ is injected in the product line directly, without utilising any porous disc or sinter candle. This means that CIP of the CO₂ and product lines can be carried out without reduction of flow.

A specially designed mixer / accelerator makes sure that the CO₂ dissolves rapidly into the product by a combination of turbulent flow and increased pressure.

An analyzer is included after the mixer and carbonated product is analyzed for CO₂ content.

A control valve regulates the CO₂ flow to keep a constant CO₂ content in the product. A PLC controls the plant operation.

- Relevant process data displayed:
- Actual and setpoint blending ratios
- Actual and setpoint flow rates
- Actual and setpoint CO₂ content
- Accumulated production volume
- Plant status
- Controller settings
- Alarm status

A fail-safe system is monitoring the operation.



Benefits

- Automatic control
- Sanitary design
- Robust construction
- Compact design
- Outstanding blending accuracy
- Efficient dissolving of CO₂
- 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:	50-100, 80-150, 120-220, 200-300, 280-500, 480-800
Blending ratio, water / beer flow:	5-50%
Deviation, flow measurement:	Less than $\pm 0.3\%$ of max flow
Carbonation level:	Up to 7 g/l
CO ₂ analyzer accuracy:	± 0.05 g/l
Utility data:	Depending on capacity range

Dimensions

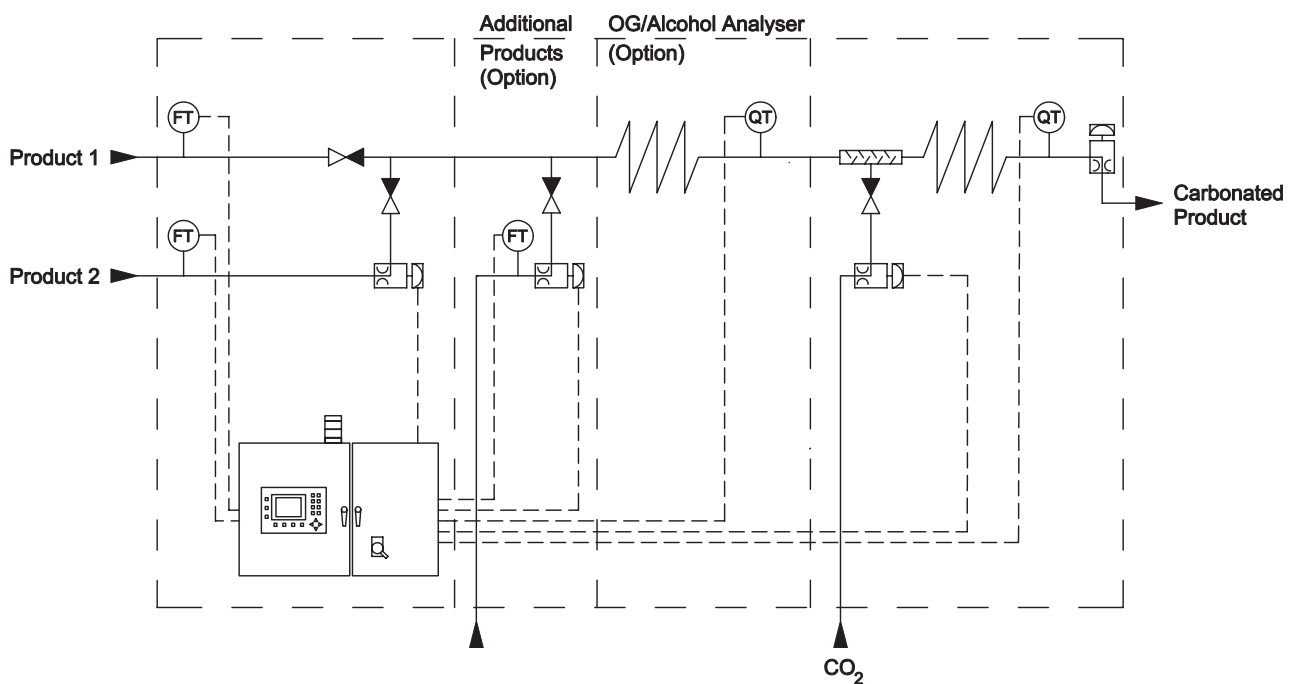
Approximate dimensions and weight depending on capacity range:

L= 2.5 m W= 1.0 m H= 2.3 m

Weight: approx 200 kg

Optional Equipment

- In-line analyzer
CARBOBLEND™ 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.
- Remote control
- Communication with other control systems



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