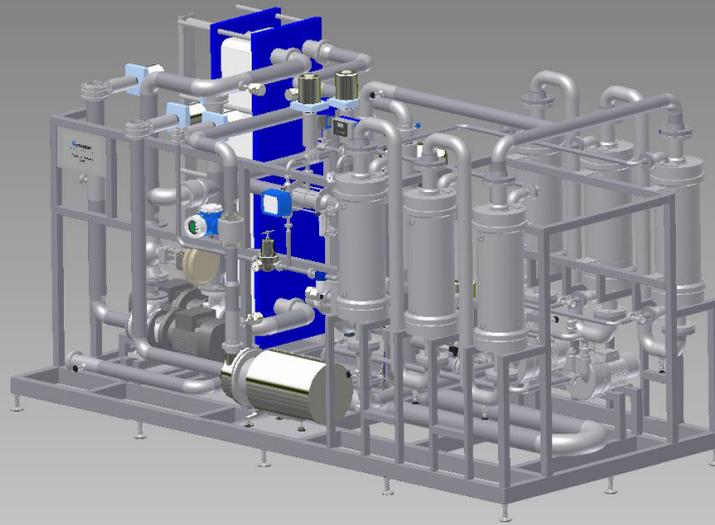


Decarbonation and Carbonation of Liquid Products

DeCarbonator



The Principle

The DeCarbonator is designed for continuous injection of carbon dioxide into liquids. CO₂ is used e. g. for neutralization of alkaline wastewater, pH adjustment and various chemical reactions. Highly efficient membrane modules allow the CO₂ concentration to be in-creased and decreased with extraordinary accuracy. At the same time the oxygen content is reduced. Each module contains thousands of hydrophobic, gas permeable hollow fibre membranes resulting in a large surface. This large surface maximizes the transfer area and the contact time between product and gas. While CO₂ is applied on the inside of the hollow fibres, the product flows in counter current between them on the outside. Depending on the CO₂ partial pressure difference between product and gas, the CO₂ permeates through the membranes either out of the membranes into the product or out of the product into the membranes. The CO₂ content of the carbonated product is permanently monitored by a high precision CARBOTEC sensor made by Centec. Based on this measurement, the CO₂ flow is fully automatically adjusted.

Technical Data

Capacity	1 - 200 m ³ /h
Dosing Range CO ₂	0,5 - 10 g/l
Dosing Accuracy CO ₂	± 0,1 g/l (option: ± 0,05 g/l)
Material	1.4301/AISI 304; 1.4404/1.4435/AISI 316L; etc.
Options	in-line O ₂ measurement nitrogenation buffer tank cooling

Highlights

High precision CARBOTEC CO₂ sensor for process control
Membrane modules for adjustment of CO₂ and reduction of O₂ content
According to cGMP, FDA, etc. and qualified (DQ, IQ, OQ) if required

The Centec Group

Centec offer fully automated, skid-mounted process units and high precision measurement technology from a single source. Our systems and sensors are engineered to perfectly meet the most demanding requirements of the brewery, beverage, food and pharmaceutical industries. With a team of experienced engineers, we aim to create quantifiable added value for our customers. We are your partner from planning and design through to commissioning of your plant.



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