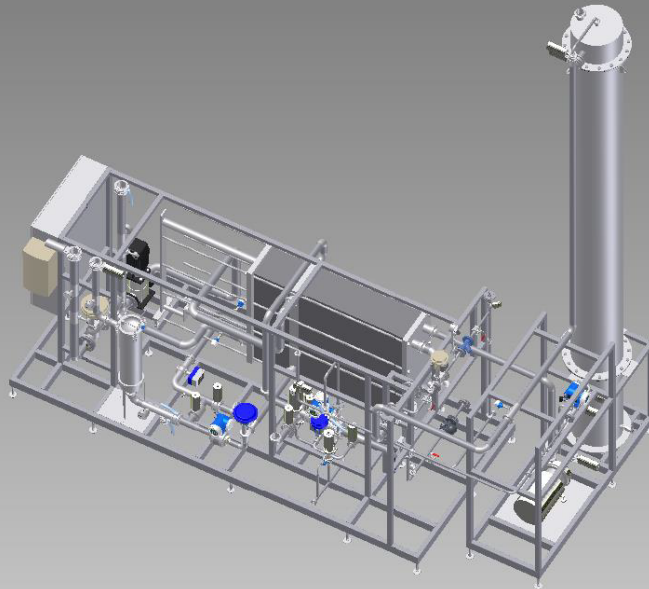


Column Water Deaeration (hot)

DeGas-Hot



The Principle

To prevent corrosion of piping systems and boilers, water needs to be deaerated. In a regenerative heat exchanger the water is first heated to 72 °C or more. Heating reduces the oxygen solubility and simultaneously disinfects the water. The hot water is then dispersed at the top of the column. The column contains densely packed, thin stainless steel sheets arranged in such way that the water takes multiple paths as it flows down through the column. This maximizes the transfer surface and the contact time between the water and the strip gas (CO₂ or N₂). The strip gas is fed into the bottom of the column and flows upwards inside it in counter current to the water. The large partial pressure difference of O₂ forces the oxygen out of the water into the gas phase. At the top of the column the removed oxygen leaves the system as a gas, together with the undissolved strip gas. The O₂ content of the deaerated water is permanently monitored. The virtually oxygen free water is collected at the bottom of the column and further processed.

Technical Data

Capacity	1 - 200 m ³ /h 1 - 200 t/h
Residual Oxygen	50 ppb - < 10 ppb lower on request
Heat Recovery Rate	≥ 92 % higher on request
Material	1.4301/AISI 304; 1.4404/AISI 316L; etc.
Heating Medium	hot water, steam
Options	double column design for lower height in-line measurements (e. g. O ₂ , CO ₂) column insulation carbonation cooling

Highlights

High precision OXYTRANS O₂ sensor for process control
Simultaneous disinfection during deaeration; low strip gas consumption
Customized design; different automation levels

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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