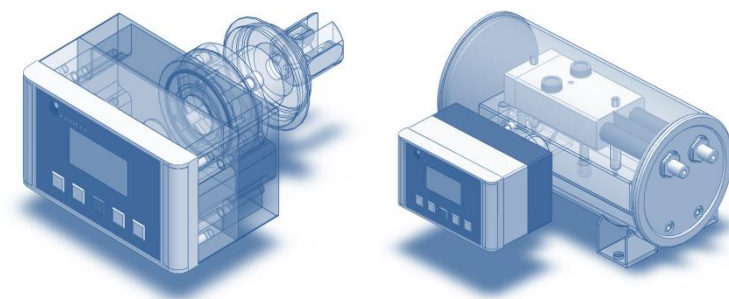


## The Centec Group

Centec is a privately owned group of companies. Our automated process skids are used throughout the entire brewing process. For soft drinks, dairy and food industries we offer a large variety of skid mounted systems. We have decades of experience in water purification and deaeration, carbonation, liquid blending and dosing, flash pasteurization and cleaning-in-place. Centec technology includes a range of high precision process sensors for accurately measuring critical product properties such as extract, alcohol, milk fat, O<sub>2</sub> and CO<sub>2</sub>. The largest brewery, soft drink, dairy and food groups in the world are among our key customers.



**Accuracy. Reliability. Centec.**

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# DeGas-H

## Hot Column Deaeration

## Centec Beverage Systems



Automated  
process skids  
and high precision  
sensors from a  
single source.  
**Centec.**

# DeGaS-H

## The Principle

The Centec column deaeration system DeGaS-C is a modular skid for removing oxygen from water heated to about 75 °C. The presence of even low O<sub>2</sub> levels can increase microbiological activity and adversely affect quality and shelf life. For treatment in DeGaS-H, the liquid is injected at the top of the column. The column contains a matrix of structured packing comprising thin corrugated metal plates arranged so that the liquid takes multiple paths as it flows downwards through the column. This maximizes the transfer surface and the contact time between the liquid and the strip gas; CO<sub>2</sub> or N<sub>2</sub> may be used. For carbonated drinks, CO<sub>2</sub> is preferred. It has to be injected into the beverage anyway. The strip gas is fed into the bottom and flows upwards inside the column. The large partial pressure difference of O<sub>2</sub> forces the oxygen out of the liquid into the gas phase. This fundamental scientific principle is described by “Henry’s Law”. At the top of the column the removed O<sub>2</sub> leaves the system together with the undissolved CO<sub>2</sub> or N<sub>2</sub>. The resultant deaerated liquid is slightly carbonated or nitrogenated depending on the strip gas used. O<sub>2</sub> content monitoring can be done with accurate OXYTRANS optical sensing technology provided by Centec.

## Technical Data

Capacity	10 - 2.000 hl/h
Residual Oxygen	< 10 ppb
Pressure of Operation	0 - 8 bar
Temperature of Operation	8 - 95 °C
Temperature of CIP	max. 95 °C
Material	1.4301/1.4404 AISI 304/316L
Heating Medium	steam
Cooling Medium	glycol, ice water, ammonia, brine
PLC	SIMATIC S7
Options	in-line O <sub>2</sub> /CO <sub>2</sub> measurement pre-filtration carbonation disinfection

The Centec production is certified according to ISO 9001.



- **Application Specific and Energy Efficient**  
reduced solubility of oxygen in hot water  
simultaneous disinfection of liquid  
excellent heat regeneration performance
- **Modular Design with Standard PLC**  
skid mounted for easy installation and start-up
- **Hygienic Execution and Full CIP Capability**
- **Outstanding Price-Performance-Ratio**

## Experience. Expertise. Centec.

*Ion Exchange · Reverse Osmosis · Membrane Deaeration · Column Deaeration · Hops Pre-Isomerization  
Wort Aeration · Yeast Pitching · Nitrogenation · Carbonation · Carboblending · High Gravity Blending  
Multi Component Mixing · Additive Dosing · Flash Pasteurization · Cleaning-in-Place · Dealcoholization*

