

## The Centec Group

Centec is a strong, privately owned group of companies. We design and manufacture automated process skids for efficient and reliable production of beers and beer mix drinks. Centec technology includes a range of process sensors for accurately measuring several brewery critical product characteristics. The largest brewery groups in the world are among our key customers.

Our operations in Germany and the Czech Republic include a skilled mechanical, electrical and automation department and skid manufacturing with piping and fitting construction as well as our own switch cabinet production. All essential manufacturing expertise is available in house.

This outstanding infrastructure allows efficient logistics, short lead times and strict adherence to delivery deadlines. The quality of our products is outstanding, so is the price-performance ratio.

## Product Highlights

### Carboblender

Combined unit for accurate high gravity blending and carbonation – all in one skid. Suitable for beer and cider. Centec precision sensors are used to control pumps and valves and to provide information for the operator.



### Optical CO<sub>2</sub> Measurement

Based on Attenuated Total Reflection (ATR) technology, the new generation of CO<sub>2</sub> sensors revolutionizes dissolved carbon dioxide measurement in liquids. For the measurement of “true” CO<sub>2</sub> content and virtually maintenance free.



## Automated Process Skids

The broad range of our process units includes automated process skids designed to customer requirements for various applications in breweries:

- Iron & Manganese Removal
- Activated Carbon Filtration
- Water Softening & Demineralization
- Reverse Osmosis
- Membrane Deaeration
- Column Deaeration
- Hops Pre-Isomerization
- Wort Cooling & Wort Aeration
- Yeast Pitching
- Carbonation & Nitrogenation
- High Gravity Blending
- Multi Component Mixing
- Additive Dosing
- Flash Pasteurization
- Carbon Dioxide Recovery
- Cleaning-in-Place (CIP)
- Sterilization-in-Place (SIP)
- Dealcoholization



No matter how complex requirements may be, Centec will provide exactly the right solution. Our capabilities include engineering, assembly, Factory Acceptance Test (FAT), delivery and commissioning of turn-key plants.

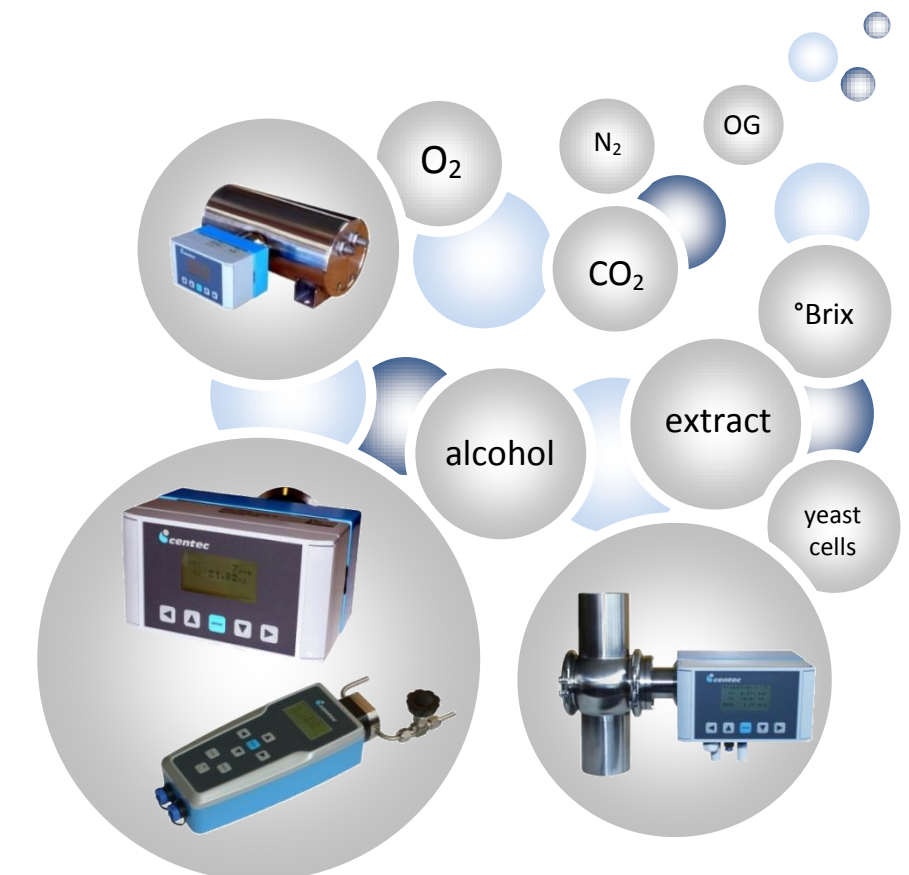
**Experience. Expertise. Centec.**

## High Precision Sensors

Centec sensors are applied in laboratory and process environments. They ensure that products are produced to consistently high standards and that processes run extremely efficiently with the least consumption of energy and raw materials. Our portfolio covers the following measurements:

- OXYTRANS – O<sub>2</sub> in liquids and gases
- CARBOTEC – dissolved CO<sub>2</sub> in liquids
- RHOTEC – density of liquids
- SONATEC – sound velocity in liquids
- BEERMONITOR – functionality of SONATEC and RHOTEC combined

The measurement of density or sound velocity allows the concentration of a media such as sugar, alcohol or extract to be displayed. In three component liquids both density and sound velocity need to be measured.



**Accuracy. Reliability. Centec.**

**Innovation. Dedication. Centec.**

## Modular Concentration Monitors

Centec provides a variety of output signal processors to interpret the product data obtained from one or more different sensors. It can be displayed locally or transmitted to a process control system. Equipped with Profibus interface and touch screen, MCM 68 evaluates O<sub>2</sub>, CO<sub>2</sub>, N<sub>2</sub>, turbidity, °Brix, °Plato/extract, alcohol, pressure, temperature and other values.



### External Display

Aiming for increased user-friendliness, the external display is the perfect solution for installations that are difficult to access. Available for OXYTRANS, RHOTEC and SONATEC. With two 4 mA - 20 mA outputs. Cable length between sensor head and display up to 10 meters.

## Innovation for the Laboratory

### Laboratory Density Meter

For extremely accurate determination of density and temperature in the lab. Sample volume 2 ml. Equipped with a user friendly 10" touch screen.



## Global Knowledge for Local Applications

### Germany

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## Brewery Systems & Sensors



The Taste of Technology