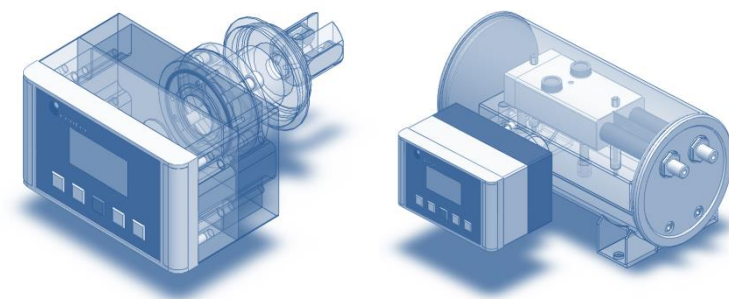


The Centec Group

Centec is a privately owned group of companies. We design and manufacture automated process skids for efficient and reliable production of beers and beer based mixed drinks. Our systems are applied in all steps of the brewing process, e.g. for water purification and deaeration, for wort cooling and aeration, for yeast dosing and management, for blending and carbonation as well as for flash pasteurization. Centec technology includes a range of high precision process sensors for accurately measuring brewery critical product properties such as extract, alcohol, O₂ and CO₂. The largest brewery groups in the world are among our key customers.



Accuracy. Reliability. Centec.

Germany

Centec GmbH
Wilhelm-Röntgen-Strasse 10
63477 Maintal
Tel.: +49 6181 18 78 0
Fax: +49 6181 18 78 50
info@centec.de

Czech Republic

Centec automatika s.r.o.
Pekařská 8/601
155 00 Praha 5
Tel.: +420 257 084 111
Fax: +420 235 518 701
prodej@centec.cz

USA

Centec LLC
P. O. Box 820
Germantown, WI 53022-0820
Tel.: +1 262 251 8209
Fax: +1 262 251 8376
info@centec-usa.com

UK

Centec UK
Stalworths, The Street
Great Tey, Colchester, Essex, CO6 1JS
Tel.: +44 1206 21 19 21
Fax: +44 1206 21 19 16
info@centec-uk.com

Serbia

Centec Serbia
Bogdana Žerajića 34/III
11000 Beograd
Tel.: + 381 11 358 11 24
Fax: + 381 11 358 11 24
info@centec.rs

India

Centec RRR Systems & Sensors Pvt Ltd
RRR House, Plot 80, Sector 23
Turbhe Naka, Navi Mumbai - 400 705
Tel.: +91 22 2783 3655 & 2783 1348
Fax: +91 22 2783 4814
mail@centecrrr.com

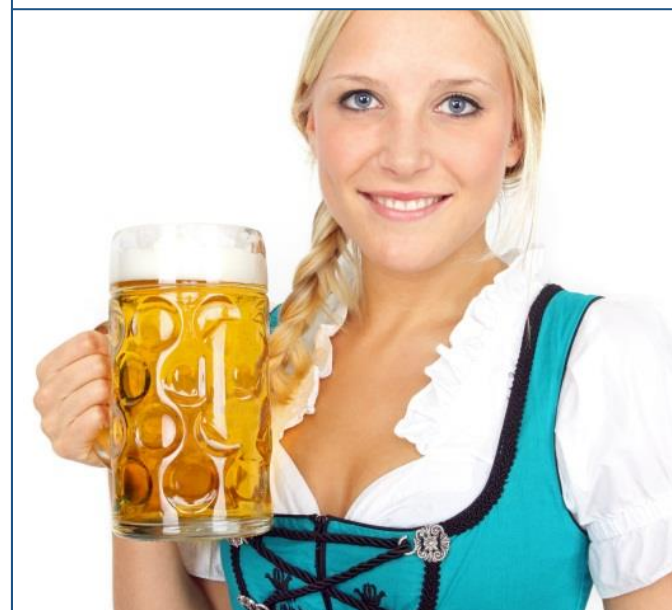
Brazil

Centec América Latina Ltda
Largo de Sao Francisco de Paula nº 26
Centro Cep. 20051 070 Rio de Janeiro
Tel.: +55 21 2223 2066
Fax: +55 21 2223 0324
centeclatina@terra.com.br

Wort Aerator

Aeration of Wort

Centec Brewery Systems



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

Wort Aerator

The Principle

Oxygen is introduced to the wort after boiling, but prior to the addition of yeast. Since yeast needs O₂ to grow and reproduce, oxygenation is essential for the establishment of the yeast colony. The amount of O₂ to be added depends on various factors like the wort gravity, the type of yeast, the temperature and the characteristics of the final beer. The Centec Wort Aerator is a fully automated system that measures and controls the oxygen content of the wort with extreme precision. It uses sophisticated OXYTRANS sensors developed and manufactured by Centec and reliable flow meters. Thus, the mass flow of oxygen can be adjusted according to the measured flow of wort. A Vortex injector automatically delivers the right amount of O₂. This nozzle ensures that the oxygen is injected as very fine bubbles and dissolved absolutely homogeneously. Since the solubility of oxygen in wort depends on the pressure and the temperature, the Vortex injector has to be designed according to the specific process parameters. For the use of sterile air instead of oxygen, the Centec Wort Aerator can be equipped with a sterile filter. Due to its compact and modular design, the skid can easily be combined with a yeast pitching system.

Technical Data

Capacity	10 - 3.000 hl/h
Range of O ₂	0 - 50 ppm
Temperature of CIP	up to 85 °C
Material	1.4301/1.4404 AISI 304/316L
PLC	SIMATIC S7
Options	air sterile filtration in-line O ₂ measurement booster pump yeast pitching

The Centec production is certified according to ISO 9001.



- **Application Specific and Energy Efficient**
exceptional accuracy with OXYTRANS sensor technology
specifically designed Vortex-nozzle for O₂ injection
expandable for automated yeast pitching
- **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*

