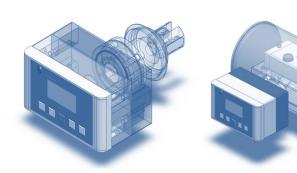




# **The Centec Group**

Centec is a privately owned group of companies. Based on extensive know-how, we are a specialist for automated process skids for high precision dosing — even of smallest quantities. For media supply we offer water purification and pure steam generation systems. CIP- and SIP-units designed and manufactured by Centec are widely used in chemical industries. Centec technology includes a range of high precision process sensors for accurately measuring critical product properties such as the concentration of acidic and caustic solutions and  $O_2$  content. The largest chemical groups in the world are among our key customers.



# Accuracy. Reliability. Centec.

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# Centec

# e Ga

# **Vacuum Deaeration**

# **Centec Chemistry Systems**



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

More information at www.centec.de

# **VeGaS**

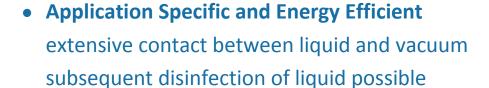
# **The Principle**

The Centec vacuum deaeration system VeGaS is a modular skid using a vacuum vessel for the removal of oxygen and other gases from a wide range of liquids. The presence of even low oxygen levels can cause serious corrosion damage by attaching to metal piping and other metallic equipment and forming oxides. Through special dispersion nozzles the liquid is sprayed into a continuously evacuated vessel. Due to the distribution of the fine liquid droplets, the transfer surface area between the liquid and the vacuum is maximized. The large partial pressure difference of  $O_2$  forces the oxygen out of the liquid into the vacuum. This fundamental scientific principle is described by "Henry's Law". Once the oxygen has been removed, it transfers out of the vessel through the vacuum line. The deaerated product collects at the bottom of the tank from where it is discharged for further processing. Vacuum deaeration can be assisted by a strip gas like nitrogen or carbon dioxide.  $O_2$  content monitoring with highly accurate OXYTRANS optical sensing technology developed and manufactured by Centec can be added, as can various other options.

### **Technical Data**

Capacity	2 - 180 m <sup>3</sup> /h
Residual Oxygen	< 10 ppb
Pressure of Operation	0 - 8 bar
Temperature of Operation	2 - 85 °C
Temperature of CIP	max. 85 °C
Material	1.4301/1.4404 AISI 304/316L
PLC	SIMATIC S7
Options	in-line O <sub>2</sub> measurement pre-filtration disinfection





- Modular Design with Standard PLC
   skid mounted for easy installation and start-up
   sturdy execution and customized design of vessel
- Hygienic Execution and Full CIP Capability
- Outstanding Price-Performance-Ratio

# **Experience. Expertise. Centec.**

Particle Pre-Filtration · Disinfection · Water Softening & Demineralization · Ultrafiltration · Reverse Osmosis

Electro Deionization · WFI Distillation · Membrane Deaeration · Column Deaeration · Vacuum Deaeration

Multi Component Mixing · Additive Dosing · Flash Pasteurization · Cleaning-in-Place · Pure Steam Generation





