

# Vortex Injector



## Venturi Nozzles for Gas Applications



- Injection of Gases into Liquid Streams
- Carbon Dioxide into Beverages
- Nitrogen Injection into Beer
- Aeration of Wort
- Sterile Oxygen into Fermentation Broth
- Aeration of Effluent
- Gas Injection into Liquid Products



# Vortex Injector

## Technical Data

Capacity	0-100 m <sup>3</sup> /h 0-1000 hl/h
Diameter	DN20 – DN150
Material	1.4301 / 1.4404 / AISI
Gasket	EPDM
Pressure	0-10 bar
Pressure loss	> 0,5 bar
Optional	CO <sub>2</sub> Measurement O <sub>2</sub> Measurement N <sub>2</sub> Measurement Dosing Control Valve Booster Pump Pressure hold Valve PLC

The Centec Vortex Injector is especially designed for the use in highly Sophisticated Systems for the homogeneous mixing of Gas, e.g. CO<sub>2</sub>, O<sub>2</sub> or N<sub>2</sub>, with liquids or beverages.

Inside the nozzle the product will be accelerated to the defined speed given by the application and the gas will be dosed into the product passing the dosing chamber. The Vortex edge creates a high turbulence at the point of mixing and so the gas gets split into very fine homogeneous bubbles. Using the right range for Pressure and Temperature the time for the dissolving is minimised.

By using the Vortex Injector units which are often used for carbonating beverages, production systems can be made smaller and more efficient.

The integration a Centec Vortex Injector with a Centec dissolved gas sensor such as CARBOTEC-PT for example, with a PLC and a suitable control valve can produce an automated controlled system to automatically dose and mix exactly the right amount of gas into a liquid. This is especially important for a range of fermentation processes used in many hygienic and industrial process applications. The optional application of a booster pump or a pressure hold valve can achieve stable production results even under unstable conditions.

For more information, ask Centec about gas injection and carbonation systems

Centec GmbH  
Wilhelm-Röntgen-Str. 10  
63477 Maintal / Frankfurt, Germany  
Tel.: +49 (0) 6181 1878 0  
Fax: +49 (0) 6181 1878 50  
info@centec.de • www.centec.de



**UK Distributor**  
Protecnica Solutions Ltd  
Stalworths, The Street,  
Great Tey, Colchester,  
Essex, CO6 1JS, UK  
Tel: 01206 211921  
sales@protecnica.co.uk  
www.centec-sensors.co.uk

