



# WATER DEAERATION SYSTEM

Maximize Quality, Minimize Oxygen

## Tackling Oxygen Absorption

In the food and beverage industry, maintaining low oxygen content in water is essential to preserve product quality, including taste, color and shelf life. Oxygen absorption needs to be minimized during various processes such as pre-coating filters, push out of product lines, blending high gravity beer and other alcoholic beverages.

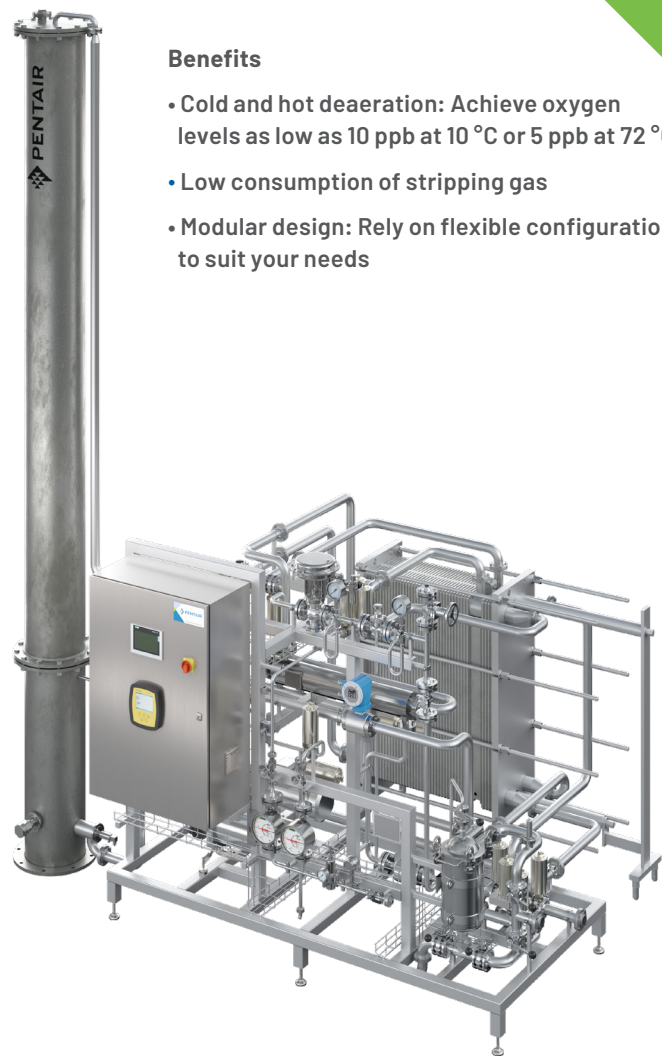
## Oxygen Removal

The Pentair Water Deaeration System (WDS) effectively removes bound oxygen from water through desorption processes utilizing CO<sub>2</sub> or N<sub>2</sub> in a stripping column. With cold deaeration, residual oxygen values of 10 ppb can be achieved at a water temperature of 10 °C. Residual oxygen values of down to 5 ppb can be achieved with hot deaeration, using water heated to 72 °C. Siemens TIA Portal is the standard control software for the deaeration system.

The modular design of the WDS enables maximum installation flexibility with minimal space requirements for the frame, column and heat exchanger. Using this as a basis, it is easy to customize the WDS in terms of volume flow, hot or cold deaeration and additional options to meet specific needs.

## Benefits

- **Cold and hot deaeration:** Achieve oxygen levels as low as 10 ppb at 10 °C or 5 ppb at 72 °C
- **Low consumption of stripping gas**
- **Modular design:** Rely on flexible configurations to suit your needs



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## Technical Data

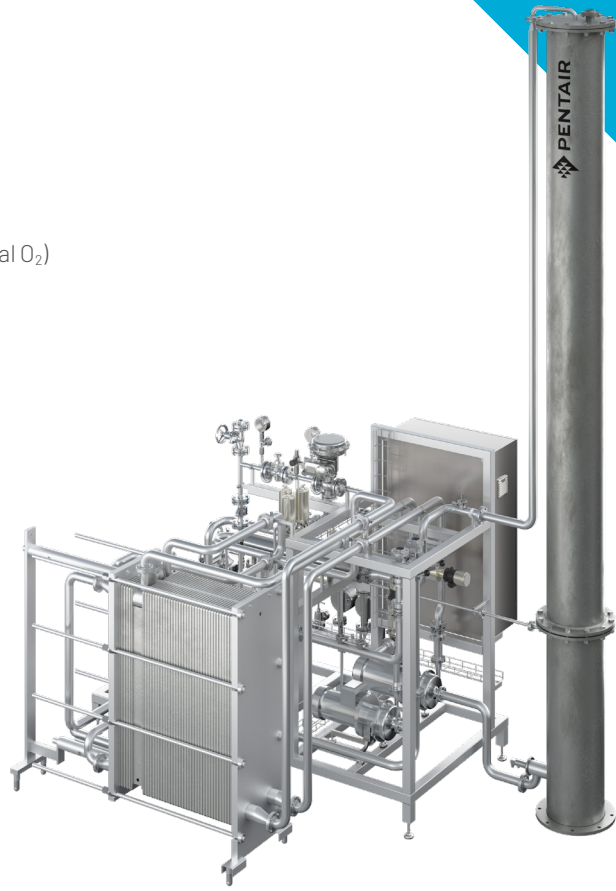
Residual O <sub>2</sub> WDS hot deaeration:	5 ppb*
Residual O <sub>2</sub> WDS cold deaeration:	10 ppb*
Column height:	6.5 - 7.0 m (depends on residual O <sub>2</sub> )
Heat recovery:	91 % (standard design)

## Materials

Parts in contact with the product:	1.4404 (AISI316L)
Parts not in contact with the product:	1.4301 (AISI 304)

## Options

- Pressure booster pump (if water inlet pressure is too low)
- Additional carbonation of DAW
- Coolant Control (freezing protection)
- Pentair Haffmans O<sub>2</sub> measurement
- UV disinfection (only for cold deaeration)
- Water filter at inlet



PERFORMANCE RANGE [m <sup>3</sup> /h]*	PIPE Ø [mm]	COLUMN Ø [mm]	WDS LENGTH [m]	WDS WIDTH [m]
3.0 - 7.5	40	250	3.3	2.2
7.5 - 15.0	50	350	3.3	2.2
15.0 - 30.0	65	500	3.4	2.4
30.0 - 50.0	80	700	3.4	2.4

Other performance ranges on request

\*The values apply under the following conditions:

- Water pressure: 3 - 4 bar
- CO<sub>2</sub> pressure: 6 bar
- CO<sub>2</sub> purity: 99.995 %

To address any further inquiries, feel free to contact our product management: [Robin.Hess@pentair.com](mailto:Robin.Hess@pentair.com)



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