HAFFMANS MDS MEMBRANE DEAERATION SYSTEM

GENERAL PRODUCT INFORMATION

Due to membrane technology, the Membrane Deaeration System (MDS) not only achieves very low residual dissolved oxygen content in the deaerated water but is also available in a wide range of flow rates. The flexible and compact design makes it a cost-attractive water deaeration system with low operating costs and reduced space requirements.

The MDS is a skid-mounted system that uses proven components, including all required piping, wiring and control systems. The hygienic, fully automatic and reliable design guarantees easy handling and low maintenance. Extensive factory tests guarantee the quality and reliability of the MDS.

The MDS uses high efficiency hollow fiber membranes to create a highly efficient contact surface between the water and the gas. The water flows on the outside of the hollow fiber membranes while a low amount of sweep gas [CO₂] flows inside the hollow fiber membranes at low pressure aided by a vacuum pump.

By creating this very low partial pressure in oxygen [O₂] on the inside of the hollow fiber membranes, the O₂ from the water will diffuse through the membrane, resulting in exceptionally low residual O₂ content in the deaerated water around the world.

BENEFITS

- Cost saving
  - low energy consumption
  - very small footprint
  - virtually unlimited capacity

APPLICATIONS

- Automated and reliable deaeration of water

FOOD & BEVERAGE

MEMBRANE DEAERATION SYSTEM, TYPE MDS
### TECHNICAL DATA

<table>
<thead>
<tr>
<th>O₂ content</th>
<th>&lt; 0.01 ppm</th>
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<tbody>
<tr>
<td>Material</td>
<td>Product contact parts: AISI 316L; Non-contact parts: AISI 304/316</td>
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<tr>
<td>Control cabinet</td>
<td>Protection class: IP 54</td>
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</tbody>
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### OPTIONS

- In-line dissolved O₂ measurement with Pentair Haffmans’ OGM
- Water cooling system
- UV-disinfection
- CO₂ injection

### SCOPE OF SUPPLY

- Skid for mounting all components
- Membrane modules
- Vacuum pump
- CO₂ sweep gas tubing, flow meter and control valve
- Water flow meter and control valve
- PLC control
- Instruction manual