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## SOLVOX<sup>®</sup> oxycloud

### High-capacity sea water oxygenation

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**Introduction** SOLVOX<sup>®</sup> oxycloud is a microbubble oxygenation unit for sea water and brackish water. It features a uniquely compact design with superior capacity.

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- Benefits**
- Compact design
  - Large oxygen capacity
  - Low power demand
  - Tailored installation designs
  - Removes nitrogen from the water
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**Description** SOLVOX oxycloud is based on Linde's patented and renowned microbubble technology. The oxygenation unit has a high capacity, despite its compact size. SOLVOX oxycloud is designed to oxygenate large volumes of sea water. The unit can be mounted on the system inlet pipe or directly against the side wall or bottom of a tank.

The device produces a cloud of oxygen microbubbles that are effectively dissolved in the water using a minimum of energy. The microbubbles created by SOLVOX oxycloud have low rising velocity. This extends the bubble residence time in the water. Combined with the large surface-to-volume ratio, this increases the oxygen dissolution efficiency – even at low pressures.

SOLVOX oxycloud has up to 100% efficiency. For optimal oxygen efficiency, we recommend the use of oxygen at purity > 99.5%. The use of oxygen at lower purity can reduce the dissolving efficiency and potentially result into super-saturation of nitrogen in the process water.

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**Installation**

SOLVOX® oxycloud is usually fixed to the main water supply or directly on to the wall or bottom of a tank using a flange interface. Oxycloud requires a separate water supply and oxygen dosing for operation. The required water flow is 60 m<sup>3</sup>/h at 1 bar. The required oxygen dosing pressure equals the installation depth pressure +3 bar. Positioning and water flow is crucial for the capacity and efficiency of the system. For minimal energy consumption, Linde recommends using a variable frequency drive for full water flow and pressure control to operate the SOLVOX oxycloud.

**System integration**

To meet customer demands, Linde offers the following accessories:

- SOLVOX in control
- SOLVOX dosing cabinet

Linde offers system integration support.

**Technical data**

Oxygen dosing capacity	50 kg/h
Water supply requirement	60 m <sup>3</sup> /h at 10 mWC
Supply interface	Flange DN 80 PN 10
Tailored interface for PE pipe	Flange DN 225 PN 6
Oxygen connection	Hose nipple ½"
Weight	8 kg
Material	POM-C, SS 316 and EPDM

1. Water inlet
2. Oxygen connection
3. Tailored interface for PE pipe
4. Optional oxygen connection
5. Tailored cloud outlet

