

SOLVOX® cone High-efficiency pressure dissolver



SOLVOX® cone installation

Introduction

SOLVOX® cone is a highly efficient pressure dissolver. Linde has continuously improved the cone design and accessories through many years of research and development. The result is the most oxygen- and energy-efficient pressure dissolver on the market.

Benefits

- → Market leading energy efficiency
- → Small footprint
- → Low installation cost compared to low-pressure cones
- → Approved and certified according to Pressure Equipment Directive (PED EN: 2014/68/EU)
- → Access to Linde's oxygenation setup assistance and automated control philosophy

Description

SOLVOX cone is a highly efficient pressure dissolver designed to increase the oxygen concentration in fresh water with as low as possible energy use. The unique combination of several of Linde's process technologies results in market-leading efficiency. SOLVOX cone achieves dissolving efficiency close to 100%, combined with an energy demand as low as 1 kWh of power for each kg of dissolved oxygen.

SOLVOX cone is made from glass-fiber-reinforced plastic (GRP), with high-quality stainless-steel fittings. It is classified as a pressure vessel according to the European Pressure Equipment Directive (PED); therefore, each cone is pressure tested and certified by third party.

To reach its full potential, the cone is complemented with SOLVOX cone booster and SOLVOX cone mixer. SOLVOX cone booster will increase the oxygen capacity of each cone. This is achieved by increasing the contact surface and retention time. SOLVOX cone mixer is a crucial part of the cone installation; it ensures that the oxygen stays dissolved.

Installation

→ Central cone installation with ring distribution pipe

One or more centralized cones feeding a common supersaturated ring distribution pipe for several tanks. Each injection point has its own manual or automated water dosing valve, for individual dosing to each fish tank.

→ Dedicated tank oxygenation

One cone dedicated to a single fish tank. This installation does not require a water dosing valve. Oxygen concentration is regulated by controlling the water pressure to the cone.

→ Bypass installation for base oxygenation of main water supply

Bypass installation of one or several cones to base load the water supply with oxygen. For oxygenation of the main water supply to a department or a whole plant.

System integration

To optimize your SOLVOX® cone installation, we recommend the following accessories:

- → SOLVOX cone booster
- → SOLVOX cone mixer
- → SOLVOX dosing cabinet
- → SOLVOX streamline
- → SOLVOX Oxystream

Linde offers system integration support and control philosophy.

Technical data

	SOLVOX cone 60	SOLVOX cone 110
Maximum operating pressure	4.5 barg	4.5 barg
Maximum flow rate with cone booster	75 m³/h	138 m ³ /h
Maximum oxygen dosing at 12°C	14.3 kg/h	26.1 kg/h
Height	2460 mm	2730 mm
Footprint	Ø 1140 mm	Ø 1350 mm
Net weight (empty)	200 kg	300 kg
Net volume	610 liters	1170 liters
Water connections (in and out)	DN 100	DN 150

- 1. Inlet flange
- 2. Recirculation to cone booster
- 3. Digital level switches
- 4. Analog level indicator
- 5. Pressure gauge
- 6. Outlet flange
- 7. Drain valve
- 8. Pressure transmitter



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aquaculture@linde.com, www.linde-gas.com