BOC
A Member of The Linde Group

SOLVOX® A.
Low-pressure oxygen dissolving unit for seawater.

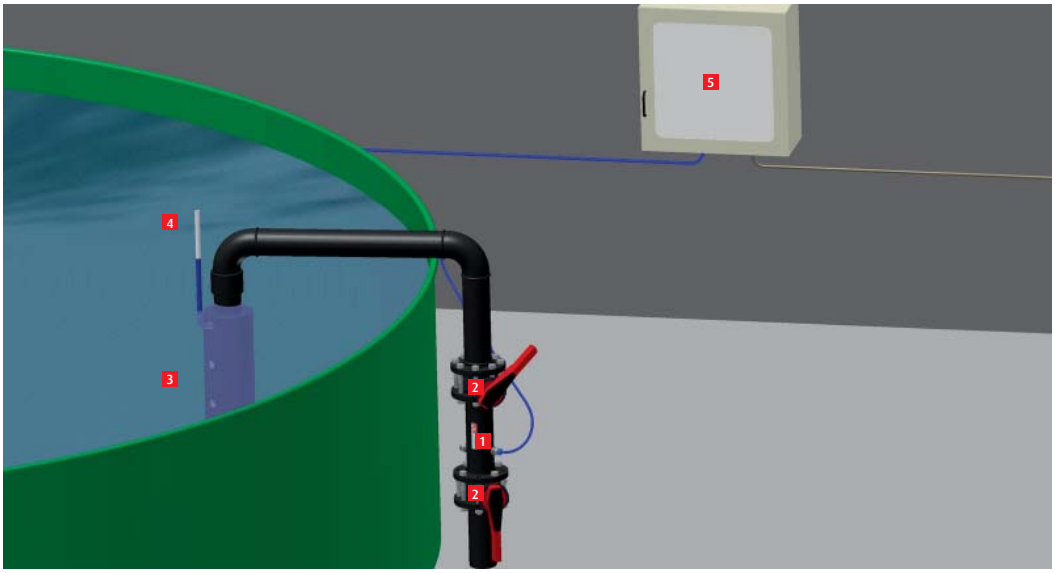
Introduction

According to the Food and Agriculture Organization of the United Nations (FAO), aquaculture is the fastest growing sector within the food industry. Based on a culture that emphasises research and innovation, BOC is a leading partner for aquaculture companies. Sharing information and experiences with our customers has created leading aquaculture solutions. One of these solutions is the SOLVOX® A low-pressure oxygen dissolving unit for seawater, a cost-effective oxygenation system for fish farming.

Description

SOLVOX® A is a flexible dissolving unit patented by BOC and can be applied to any fish tank. Usually, the unit is integrated into the pipe work to oxygenate the entire flow entering the tank. For larger tanks, more than one SOLVOX® A unit can be installed to achieve optimum distribution of dissolved oxygen within the tank. SOLVOX® A is easy to install and combines high oxygenation efficiency with low energy demand. For optimum results, a positive pressure of approximately 0.2 bar is required in the water supply pipe. In order to ensure an even distribution of oxygenated water throughout the entire volume of the fish tank, we recommend that SOLVOX® A is combined with SOLVOX® Stream, a product already well known by many of our customers. By combining these two products, optimum environmental conditions are established, thus improving fish health and allowing for faster growth.

Components



BOC recommend combining SOLVOX® A with SOLVOX® Stream, providing optimal tank hydraulics and oxygen distribution.
1 SOLVOX® A, 2 Valves, 3 SOLVOX® Stream, 4 Water flow indicator, 5 Oxygen control cabinet

Installation

SOLVOX® A can easily be flanged onto the water inlet pipe to the fish tank. Normally, it is installed in a vertical operation with flow passing up through the unit. However, it is also possible to install it with flow passing down through the unit. Bypass or parallel installations are also possible. SOLVOX® A is exclusively made of plastic material and has no moving parts. The need for service and support is therefore minimal.

For correct installation, the flow direction is marked on the SOLVOX® A body. The fitting length of various SOLVOX® A models can be found in the table below. It is important to install the water adjustment downstream of the SOLVOX® A unit close to the fish tank inlet. Moreover, the piping between SOLVOX® A and SOLVOX® Stream should be positioned as low as possible to avoid it protruding above the water level of the fish tank.

The gas inlet to SOLVOX® A must be connected to an oxygen control cabinet. A connection for the oxygen hose is provided. Degreased, acid-proof steel or copper pipes are recommended for standard gas distribution.

The regulating valve is installed in the pipework downstream of the SOLVOX® A unit at a height under the water level of the tank. Regulating valves in plastic must be used, preferably a butterfly valve. The service valve is installed upstream of the dissolving unit, so that service can be carried out easily and conveniently.

Benefits

- → Low energy demand
- → High oxygen dissolution efficiency
- → Low investment cost
- → Flexible oxygen dissolver
- → Simple to install
- → Low maintenance
- → Easily retrofitted to existing tanks

Technical data

Product name	Item number	Water flow litres/min	Overall unit length mm	Oxygen capacity kg/h*
SOLVOX® A 6	318419	100	300	0.150
SOLVOX® A 9	318420	150	350	0.225
SOLVOX® A 15	318421	250	300	0.375
SOLVOX® A 24	318422	400	400	0.600
SOLVOX® A 33	318423	550	350	0.825
SOLVOX® A 45	318424	750	450	1.00
SOLVOX® A 54	318425	900	400	1.35
SOLVOX® A 150	318426	2500	500	3.75

*At nominal water flow rate and 15°C water temperature.

Contact

Would you like to know more about our SOLVOX® A and other gas application technologies for aquaculture? Experts from BOC are at your service.

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