

The oxygen sensor that makes it possible to produce environmentally friendly salmon

Norwegian company Akvafuture produces salmon in a sustainable and environmentally friendly way. One of the solutions that makes this possible is a WTW oxygen sensor supplied by Xylem.

We have done a lot of work and research to optimize the oxygen distribution to the actual oxygen consumption in closed cages. The WTW sensors have played a crucial role in ensuring the best possible results, says Aleksander Ormøy from Akvafuture.

The cooperation between Akvafuture and Xylem started ten years ago, as Xylem has the expertise in technology and solutions for technology and solutions for high water quality.

The technology behind the environmentally friendly salmon

Akvafuture produces salmon in a sustainable and eco-friendly manner, while also prioritizing fish welfare in their production process.



Happy salmon, happy life. Aleksander Ormøy, Akvafuture, (ttl.) and Øystein Sigurdson, Xylem, (ttr) are also measuring the oxygen level in the sea cages with a handheld instrument from YSI, which is a Xylem brand.

They have developed their own technology, utilizing a semi-closed sea cage that pumps clean water from deeper below the surface to avoid sea lice.

Additionally, they produce and maintain their own patented semi-closed sea cages. The fish is of excellent quality with a shiny appearance, and its meat texture has an ideal distribution of fat and proteins. To optimize and ensure the best possible process control, Akvafuture began using WTW oxygen sensors. The sensors come with a controller display that has all the necessary control and reporting functions, sensor cables, and communication cables.

By changing the optical sensor caps periodically, you will receive consistent and dependable outcomes that can be stored and logged at any time, as indicated by Øystein Sigurdson from Xylem Water Solutions Norway.

The sensors are user-friendly and require minimal maintenance. What's unique in our case is that we aim to measure the salmon's oxygen consumption in varying situations utilizing the WTW oxygen sensors, says Aleksander Ormøy of Akvafuture.

WTW has been a Xylem brand for 12 years.

These sensors have been installed in many well boats and closed cages where precise and reliable oxygen measurements are important.

The system also offers other sensors such as pH, ORP, conductivity, salinity, and turbidity. For freshwater, you can measure nitrite, nitrate, ammonia, BOD, and water color. Øystein Sigurdson from Xylem Water Solutions Norway summarizes this information.



The optical oxygen sensors from WTW are hanging at the edge of the closed fish cage with a sensor cable and a rope to relieve the weight of the sensor. The oxygen sensors are also put at different depths in the middle of the cage, which can be 20 meter deep.



A WTW controller with display, along with frequency converters for the Flygt pumps, ensures a safe delivery of clean water into the fish cages, free from sea lice.



With a WTW controller with display you will always have the complete overview of the oxygen levels in all closed fish cages. With these measured values you can control pumps and oxygen supply directly, or sending the signals to the PLC. There is also an option for a web-based solution.

Do you have further questions?
Please contact our
Customer Care Center:

Xylem Analytics Germany Sales
GmbH & Co. KG, WTW
Am Achalaich 11
82362 Weilheim, Germany
Phone +49 881 1830
Fax +49 881 183-420
Info.WTW@xylem.com

xylemanalytics.com

All names are registered tradenames or trademarks of Xylem or one of its subsidiaries.
Technical changes reserved.
© 2023 Xylem Analytics Germany Sales GmbH & Co. KG.

October 2023