



# **AQUACULTURE CASE**



# Superior Water Secures High Quality Organic Fish

## The Case

Langsand Laks (Atlantic Sapphire) wanted to be the first commercial sized Atlantic salmon farm in the world. Growing environmentally friendly salmon on land in a Recirculating Aquaculture System. Therefore they were looking for a supplier with breaking-edge water treatment technology.



## The Solution

**One of the crucial points in Langsand was to secure bacteria free feedwater to avoid any diseases affecting the fish. Diseases means loss of the fish stock and waste of months hard work. Also important was reduction of antibiotics and chemicals to reduce the impact on the environment.**

The Solution was a hightech water treatment system from LiqTech, featuring ultrafiltration membranes. It was chosen based on its ability to provide the best and most reliable water filtration technique together with a clean and consistant water quality. The membranes are seawater resistant and provides supreme bacteria free seawater.

Today the ultrafiltration systems provides Lang-sand with superior feedwater, to secure healthy, organic and environmental friendly salmons farmed with no use of antibiotics. On top the salmons grow faster and have less fat.

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We are really satisfied with the water quality we have achieved, installing the LiqTech system. On top we have a fantastic co-operation with the sales and service team in LiqTech.

**Lars Ditlev**

Managing Director, Langsand Laks



# LiqTech System Design

## Materials and Components

Our membrane systems are standardized and built in either corrosion resistant stainless steel (SS316L) or plastic (PP). High quality pumps, valves and sensors are used to ensure operational stability and longevity. Materials of construction and sealings are selected depending on the water composition and end-user requirements. LiqTech also offers customized solutions such as containerized units.

## Modular Systems

The LiqTech membrane system is based on standardized membrane modules. This facilitates the option of expanding the system with additional membrane modules to further increase the capacity if necessary. LiqTech offers systems for water in a flow range as low as 0.5 m<sup>3</sup>/h (2 GPM) and up to more than 1000 m<sup>3</sup>/h (4,400 GPM). These units are designed and manufactured with the objective for easy maintenance and expedient and compact footprint.

## Cleaning tools

The membrane systems are as standard made with automatic back wash. Automatic CIP (cleaning in place) is optional.

## Membrane

The heart of the system is based on LiqTech's patented SiC ceramic membranes. These membranes are extremely robust, tolerating high temperatures; aggressive cleaning and they provide a long lifetime. The SiC membranes are available with pore sizes in the MF spectrum and the UF spectrum as well, serving a wide range of applications.

## Control

The systems are fully automated and may be remotely monitored and controlled.

# LiqTech Installation



- LiqTech UF20, Semi dead-end system
- Automatic CIP system
- Remote management control system
- Bacteria free feedwater
- 20 silicon carbide ceramic membranes
- Turnkey with full PLC control system and remote control
- 1000 MT/yearly production

# We are here to help you



**Kenneth Højrup Johansen**

VP Sales

Phone: +45 2055 5217

khj@liqtech.com

**LiqTech Water A/S**

Phone: +45 7020 7258

water@liqtech.com

<https://liqtech.com/water>



**Jacob Møller Grimstrup**

Sales Manager

Phone: +45 4057 6947

jmg@liqtech.com

**LiqTech Water A/S**

Phone: +45 7020 7258

water@liqtech.com

<https://liqtech.com/water>