

**Location:** United States



Applied Membranes delivers cutting edge RO system for biotechnology company, meeting strict timelines and quality requirements

Ensuring consistent, high-quality water for the krill oil extraction process is paramount. AMI systems demonstrate consistent results.

## Challenge

A biotech and krill-harvesting company manufactures products that improve human and planetary health. Its primary focus revolves around extracting krill oil with a commitment to environmental responsibility.

The company wanted to elevate its krill oil production process by upgrading the plant's infrastructure and replacing its existing Reverse Osmosis (RO) system.

The influent water was sourced directly from the city's municipal supply.

The project's critical aspects included producing water that met stringent water quality standards (conductivity < 6  $\mu\text{S}/\text{cm}$ ), complying with strict local codes and standards, and receiving the system within a tight timeline. The schedule was pivotal for the customer's operational needs.



## Solution

Applied Membranes Inc. engineered and built a fully modular, skid-mounted 2-pass RO system designed and specifically customized to address the customer's unique requirements.

The system produces **50 GPM (12 m<sup>3</sup>/h)** high-quality product water while meeting stringent conductivity standards. The design integrated membrane sanitization for the second pass, ensuring optimal performance and longevity.

The AMI solution is scalable for future expansion needs. It includes a spare pump for redundancy and uninterrupted operations.

### Key Components:

- High pressure feed pumps
- High pressure booster pumps
- Automatic flushing of membranes with permeate upon system shutdown
- Clean-in-place system
- Chemical injection system
- Programmable Logic Controllers (PLC)

## Results

AMI system plays a pivotal role in purifying water for the customer's krill oil extraction process.

**Quality and reliability** – Applied Membranes delivered a state-of-the-art RO system, meeting rigorous quality and compliance standards, which enabled the customer to safely increase their production capacity.

**Timely delivery** – Applied Membranes met customer's tight timelines. The system was fully designed and assembled within a few days, followed by rigorous FAT (Factory Acceptance Testing) completed within the stipulated week.

**Support and training** – Applied Membranes provided start-up assistance and comprehensive training, empowering the customer to operate the new system seamlessly.

The customer was very pleased with Applied Membranes' dedication, expertise, and ability to meet their deadlines without compromising quality.