



Alfa Laval

Boosting krill processing efficiency through comprehensive commissioning

Service product
Commissioning

Equipment
Decanter, High speed separator,
DSI Krill Cooker, evaporation system

Customer
LIAOYU Group Antarctic krill
fishing and processing vessel

↑ **25%**

Production capacity

↓ **10%**

Maintenance cost

Liaoyu Group Antarctic krill fishing and processing vessel

As the global population surges, conventional agriculture and fisheries are under immense strain. Antarctic krill, with an estimated biomass exceeding tens of millions of tons, surpassing the total catch of all global fisheries, offers a sustainable and nutritious solution to future food challenges.

The “Fuxinghai” is an Antarctic krill fishing and processing vessel. Built by Liaoyu Group since 2021, it features a highly efficient vacuum pump system and advanced processing facilities for krill powder and food products. Designed, developed, and constructed in China, it represents the pinnacle of domestic krill fishing and processing technology. Alfa Laval supplied DSI Krill Cooker, decanters, evaporation system, and pumps, valves, sensors, and control systems for its two krill processing lines.



The challenge

From initial equipment installation guidance to testing, and later system feed commissioning, Alfa Laval service engineers ensured the precise commissioning at each stage. After 5 months of testing and commissioning, the equipment had its first feed test. Alfa Laval engineers quickly identified and fixed the issues from the test, efficiently completing the second and third feed tests, thoroughly verifying the equipment performance and ensuring the smooth delivery of the vessel.

Post shipyard commissioning, the key challenge lies in maintaining stable on-board operations in Antarctic, which is crucial for processing efficiency and output, and vital for production plan implementation.

Our solution

During the fishing period, Alfa Laval deployed two engineers on board for commissioning. They adjusted equipment parameters and hardware, including overhauling high-speed separators and maintaining decanters. Faulty pumps were repaired, and heat exchangers were disassembled and cleaned when production issues arose. Additionally, the engineers provided comprehensive maintenance training to the customer.

Customer benefit

Following 2 months of commissioning, all production equipment met the required standards. During this period, around 5,800 tons of krill were caught, with 4,900 tons processed into 630 tons of krill meal. The two krill processing lines, designed by Alfa Laval with a combined daily processing capacity of 528 tons, achieved the designed output.

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Start

Our installation and commissioning services ensure a smooth start-up, minimizing time and resources while guaranteeing performance expectations from day one.

Our professionals install your equipment to the latest industry standards, and our commissioning process rigorously tests and verifies every system to guarantee reliability and optimal performance.

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