Press release

March 2025

Alfa Laval secures first contract for ammonia fuel supply system, marking a major milestone in maritime decarbonization

Alfa Laval has signed its first contract for the ammonia fuel supply system, FCM Ammonia, reinforcing its position as a frontrunner in developing solutions for decarbonizing the maritime industry. The FCM Ammonia will be installed onboard seven LPG/ammonia carriers for Tianjin Southwest Maritime.

Ammonia-powered shipping becoming a reality

As a front-runner in enabling the use of ammonia, Alfa Laval has achieved a significant milestone by securing the contract for the ammonia fuel supply system, highlighting its technological readiness to handle ammonia as fuel. The FCM Ammonia will be installed on a CSSC Huangpu Wenchong shipyard in China for ship owner Tianjin Southwest Maritime (TSM). The installation will commence with three 25,000 cubic metre vessels, followed by four 41,000 cubic metre vessels.

"Through research, product development, and strategic partnerships, we are building the solutions needed for a safe and efficient transition to low-carbon alternative fuels," says **Peter Sahlen**, Head of Marine Separation, Fuel Supply System & Heat Transfer, Alfa Laval. “Our deep experience with fuels like methanol and LPG has given us a head start with ammonia, and this first contract validates our commitment to driving decarbonization in shipping with reliable and innovative solutions.”

Collaborative development drives innovation

The FCM Ammonia contract follows extensive testing and development conducted in close collaboration with Swiss engine designer WinGD. In December 2024, comprehensive testing of the full fuel supply system, fuel valve train, and vent treatment system commenced at WinGD’s Engine & Research Innovation Center (ERIC) in Winterthur, Switzerland. These tests, utilizing test benches delivered by Alfa Laval Monza, will first validate key components for the vent treatment system, also called the ammonia release mitigation system, and then secure control logic and performance at varying engine loads.

"Collaborating with trusted partners such as Alfa Laval has been instrumental in bringing these new clean-fuel technologies to market, making ammonia-powered shipping a reality. This partnership, along with our joint R&D efforts, underscores our shared commitment to the clean energy transition to enable a sustainable future for shipping,” says **Sebastian Hensel**, Vice President, Research & Development, WinGD.

The research and development project with WinGD for testing FCM Ammonia has laid a strong foundation for its commercial adoption. This is further evidenced by K Shipbuilding receiving Approval in Principle (AIP) from ABS in December 2024 for the design of an ammonia dual-fuel MR1 tanker. The project, a collaboration between South Korea’s shipbuilder K Shipbuilding (KSB), Alfa Laval, WinGD, and the classification society American Bureau of Shipping (ABS), saw Alfa Laval contribute to the design of the entire fuel system, including the ammonia fuel supply system, fuel valves train, and vent treatment

system, with Alfa Laval also adding an Aalborg ammonia dual-fuel boiler system to the project scope. This achievement marks the first instance of a combined vent treatment system incorporating both a water absorber and burning.

The success of the rigorous testing project is generating trust across the industry, and the recognition from class societies further confirms that ammonia can be a safe and viable marine fuel when backed by expert collaboration and robust system design.

The first FCM Ammonia unit for TSM is scheduled for delivery at the end of 2025. The contract with TSM, a current customer for FCM LPG, Alfa Laval fuel supply system for LPG, further underscores Alfa Laval's key role in providing comprehensive fuel solutions to meet the evolving needs of the maritime industry.

Read the PR on MOU with WinGD, ABS and K Shipbuilding:
WinGD, Alfa Laval, ABS and K Shipbuilding join forces for ammonia-fuelled tanker design | WinGD

Read the PR on the joint development agreement with WinGD:
WinGD partners with Alfa Laval | Alfa Laval

Visit marine equipment and solutions for ammonia as fuel page:
Marine equipment and solutions for ammonia as fuel | Alfa Laval

For more information, please visit the Alfa Laval Marine webpage:
www.alfalaval.com/marine

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Editor's notes

This is Alfa Laval

The ability to make the most of what we have is more important than ever. Together with our customers, we're innovating the industries that society depends on and creating lasting positive impact. We're set on helping billions of people to get the energy, food, and clean water they need. And, at the same time, we're decarbonising the marine fleet that's the backbone of global trade.

We pioneer technologies and solutions that free our customers to unlock the true potential of resources. As our customers' businesses grow stronger, the goal of a truly sustainable world edges closer. The company is committed to optimizing processes, creating responsible growth, and driving progress to support customers in achieving their business goals and sustainability targets. Together, we're pioneering positive impact.

Alfa Laval was founded 140 years ago, has customers in 100 countries, employs more than 22,300 people, and annual sales were SEK 66.6 billion (5.8 BEUR) in 2024. The company is listed on Nasdaq Stockholm.

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