



White paper



FCM challenge 2

Unpredictable fuel scenario

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Unpredictable fuel scenario

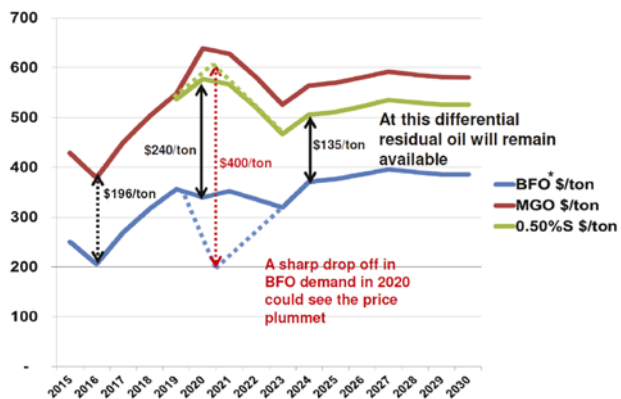
Engines are constantly evolving, and regulations shift in various parts of the world. This naturally means that the future of the marine industry is somewhat unpredictable, especially when it comes to which fuel will work best for you. There is no one-fuel-fits-all solution on the horizon, and this unpredictability means many challenges, including:

- A lot of uncertainty around fuel availability and cost in the coming years
- Many variables with each fuel type – there’s a large spread in possible viscosity levels for each fuel on the market, compared with the expected values according to engine specifications.
- Fuel quality is critical, and if it drops it presents a greater challenge in the conditioning process.

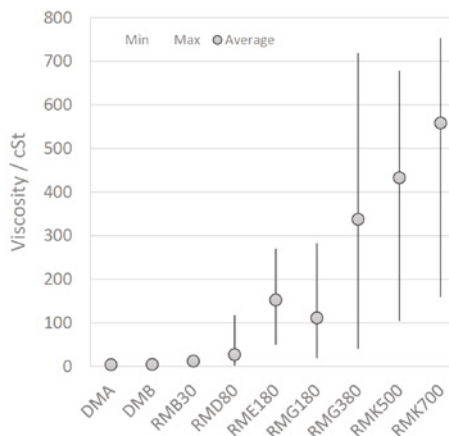
This means that ship owners need to focus on two things:

- You need to be able to handle the fuels that are available today
- You need to invest in a system that’s flexible, and can adapt to new, unpredictable fuel scenarios.

Fuel price prediction



Viscosity of marine fuels



Securing flexibility

How can owners secure the flexibility needed to maintain operational efficiency for years to come? There are a few key considerations when it comes to looking into a future proof fuel conditioning module. It needs to:

- Be able to automatically handle multiple fuels
- Be able to set the maintain the right operating conditions for any of the possible fuels in use
- Be able to secure fuel segregation
- Have a safety barrier between the engine and cat fines





The Alfa Laval solution

Alfa Laval's FCM is tried, tested, and suitable for the full range of fuel parameters which come into force in 2020. That means it can provide the engine with the right density, viscosity and composition safely and automatically.

It also has the capacity to select the fuel for use by simply pushing a button, and it can use up to 4 different fuels and fuel configurations. After the button is pushed, Alfa Laval FCM automatically adjusts valves and set points for the specific fuel, and heats or cools the fuel as needed. Nothing returns to the tanks, so there's no risk of mixing different fuel types and causing issues. The system can also prevent direct change between incompatible fuels, further improving operational safety and efficiency.

In addition to the functionality it has a highly efficient, self-cleaning filter which removes any harmful catfines. The efficient filter process also ensures that any clogging is avoided, even in the worst fuel conditions.



The FCM One Oil is designed to condition conventional marine fuel oils but can also be configured to handle multiple fuels, produce fuel blends and manage the automatic changeover between them.

Important considerations

- Having a flexible system only requires a limited investment, because most of what's required is already there, it's a case of a few additions to a newer system
- A total refit later on is a much more significant investment, and can cause issues with space and downtime to allow for installation
- You may need to use a fuel in the future that is not as financially viable as others on the market due to current booster limitations
- The costs that come as a result of improper fuel treatment are far higher than what an initial investment would cost in proper fuel treatment in the first place
- Having one supplier for the fuel treatment process ensures a commitment to overall performance, and gives you access to any support and service you may need



About Alfa Laval

Alfa Laval is a leading global provider of specialized products and engineering solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again. We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuff, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com

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