

# What if You Could Change Between All Marine Fuel Types Without any Changes to the Bunkering System ?

## Introducing the Emerson Fuel Bunkering System

- Prevents unnecessary onboard service visits and OPEX costs
- Measures marine fuels with wide range of viscosities
- Ensures the system is certified to measure all requested fuel types



- Wide viscosity range of 0.5 cSt till 2400 cSt
- Best system geometry makes it possible to handle aerated fuel
- No need for re-certification of the system after fuel type changes
- One calibration fits all fuel types

# Emerson's Fuel Bunkering System

## Regulatory Impact on Marine Fuel Types

The latest regulation (IMO2020) has made the marine industry look for more compliant fuels. It is expected that distillates demand will increase and new blended fuels will come into existence.

Bunker tanker operators are expected to supply more than one type of fuel. Some of the operators have gone ahead with multiple mass flow meter-based custody transfer systems to ensure flexibility of the operation. By using separated flow systems, the risk of fuel contamination is prevented. Most of the existing bunker tankers are not designed to handle multiple grades of fuel at one time. Operators of such bunker tankers expect to change bunker fuel type from Heavy Fuel Oil to Blended Fuel or Marine Gas Oil or vice versa depending on the demand.

## Challenging Process

Changing Fuel types can be a tedious and time-consuming process. It is costly when seals need to be broken to change the configuration settings and afterwards when the system needs to be re-sealed again by a notified body.

Bunkering operations need to take place to perform new zero setting and a certified service engineer needs to come on board to perform these configuration changes and re-seal the system.

## Coriolis Mass Flow Meters

Mass Flow meters are widely being adopted for the bunkering application as it gives the users a certified, transparent and traceable fuel measurement reading, and ensures confidence in the delivery.

Before the mass flow meter can be used for custody transfer, it is necessary to carry out a "Zero Setting" of the Coriolis mass flow meter to ensure that the meter is tuned to installation and to avoid Zero offset errors.

Emerson's Certified Bunkering System does not require a zero verification or zero setting when changing fuel types, enabling operators to save in OPEX cost and reduce downtime.

## Variation of Viscosity Ranges

Properties of different grades of marine fuels can vary a lot in terms of density, viscosity, operating temperature along with the Sulphur content. Fuel viscosity can vary from as low as 2cSt to up to 700cSt at 50°C depending on the fuel type. This can impact the mass flow meter accuracy. Emerson Certified Bunkering System gives operators trust in the meter reading for marine fuels with a viscosity range of 0.5 cSt till 2400 cSt.

## Emerson's Fuel Bunkering System

Emerson's Fuel Bunkering System with Micro Motion Coriolis mass flow meters eliminates this challenge by providing a robust meter geometry, which results in a lower natural resonance frequency of the meter. This makes it possible to better handle aerated fuel.

With Emerson's Fuel Bunkering System the operator does not need to worry about regulatory compliance when changing fuel types, or require a service engineer visit for re-verification of the bunkering system. Saving time and opex cost in the fuel changing process.

## CONTACT US

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