



## Marine Fuel Conversion - Case Study



### Case Study Information

Customer	Ferry Operator
Location	United Kingdom
Enquiry Received	16th September
Order Placed	13th October
Order Dispatched	7th November

### Equipment Supplied:

#### 1 x Bombas Azcue Vertical Inline Screw Pump - For Low Sulphur Marine Gas Oil

Fluid	LSMGO - Marine Gas Oil
Installation	Vertical
Flow	40 m3/hr
Discharge Head	5 bar
11kW Motor 690V 3 Phase 60Hz IP55	

### Enquiry:

- ✓ Vessels are increasingly undergoing on board fuel system conversions from HFO (Heavy Fuel Oil) to fluids such as Marine Gas Oil (MGO), this is due to the legal requirement to comply with emission targets set in the Sulphur Emission Control Area (SECA). The Low Sulphur Directive now requires ships to use fuel with a maximum of 0.1% sulphur content in Emission Control Areas, and in 2020 the IMO'S global sulphur cap means a 0.5% limit must be achieved in any seas.
- ✓ Due to the lower viscosity nature of such fluids, the fuel systems previously used with HFO are often not compatible with the new low sulphur fuels and therefore the system and pumps required to transfer the fuel that feeds the engines and boilers need updating.
- ✓ A UK ferry operator undergoing a marine gas oil conversion, required a pump for this application with Lloyds approval in 3-4 weeks. This was a tight deadline as normally these pumps are supplied on a 4-6 week lead time. This tight schedule was to meet the vessels dry docking program, which if not met would have incurred costly downtime.

### Solution:

- ✓ Castle Pumps supplied an Azcue vertical inline screw pump in 3.5 weeks meeting the deadline, complete with marine certification as per the clients request. The pump also came complete with suction and discharge manometers to satisfy class requirements.
- ✓ Due to the viscosity of MGO, a screw pump is the ideal technology to transfer this liquid. The pump was delivered complete with a pressure relief valve, set as per the customer's request, enabling the pump to avoid damage should it experience higher than expected pressures.
- ✓ Due to the quick response in supplying the pump, we were also tasked with supplying a DN80 strainer and flow meter suitable for MGO.