

LEMAG FQI

SAFETY FUEL-OIL HOMOGENISER

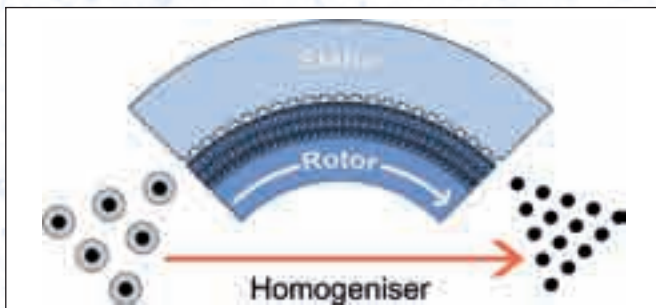
- For fuel quality improvement
- Sealed by magnetic coupling
- Integrated temperature sensor
- Rotation speed monitor
- Integrated heat pockets
- Safety bypass valve (optional)



The fuel quality improving homogeniser with additional safety features

The LEMAG Fuel Quality Improver (FQI) is designed to solve the problems ship owners and operators face when running on heavy fuel oil. The homogeniser reduces the size of asphaltenes in the fuel, creating a consistently fine fuel-oil structure that enables a more stable combustion, which can extend equipment life.

The homogeniser is based on the stator-rotor principle. The rotor with a highly efficient grinding profile runs at high speed against the stator, causing the long carbon chains in the fuel to break up.



Due to the conical design of the stator and rotor, the clearance between the two can easily be adjusted with an accuracy of <math><5\mu\text{m}</math>.

The LEMAG FQI is equipped with the following safety features:

- **Integrated magnetic coupling** to seal the mixing chamber hermetically
- **Integrated temperature sensor** to prevent the unit overheating
- **Rotation speed monitor** to ensure the homogeniser is functioning correctly
- **Internal heat pockets for steam or thermal oil** to protect the bearings and extend the product's lifetime and to reduce installation costs
- **Integrated safety bypass valve (optional)** for easy implementation in a fuel system to reduce installation costs

Subject to change without notice

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The LEMAG Fuel Quality Improver is suitable for both newbuildings as well as retrofit installations and can optionally be supplied with an integrated bypass valve for easy implementation in fuel systems.

For improved combustion we recommend installing the homogeniser between the final pre-heater and the viscosimeter (see Fig.1).

The LEMAG FQI can also be used for other applications, e.g. blending fuel-oil or boiler applications. Special types for extreme fuel qualities e.g. 1.000 cSt. are also available on request, as well as pipe class 1 for >150°C. It is also possible to test the effect of the homogeniser on special fuels in advance on our R&D test unit. Please contact us directly for further details.

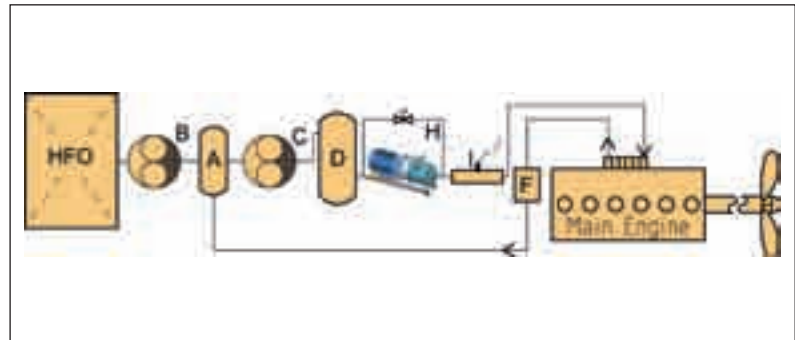


Fig. 1 Improved Combustion

- A: Buffer Tank
- B: Supply Pump
- C: Circulation Pump
- D: Final Pre-heater
- F: Pressure reg. Valve
- H: LEMAG FQI
- I: Viscosimeter

LEMAG Homogeniser	FQI-3	FQI-5	FQI-8	FQI-12	FQI-15
Capacity	3,0 t/h	5,0 t/h	8,0 t/h	12,0 t/h	15,0 t/h
Max. temperature	150 °C	150 °C	150 °C	150 °C	150 °C
Connections	DN50 PN16*	DN50 PN16*	DN50 PN16*	DN65 PN16*	DN65 PN16*

Standard model / Art. No.	3104001	3104002	3104003	3104004	3104005
Weight	145 kg	145 kg	145 kg	165 kg	165 kg
Dimensions	L: 832 mm W: 320 mm H: 420 mm	L: 832 mm W: 320 mm H: 420 mm	L: 832 mm W: 320 mm H: 420 mm	L: 945 mm W: 350 mm H: 420 mm	L: 945 mm W: 350 mm H: 420 mm

With integrated bypass / Art. No.	3104101	3104102	3104103	3104104	3104105
Weight	170 kg	170 kg	170 kg	190 kg	190 kg
Dimensions	L: 936 mm W: 320 mm H: 830 mm	L: 936 mm W: 320 mm H: 830 mm	L: 936 mm W: 320 mm H: 830 mm	L: 1072 mm W: 350 mm H: 844 mm	L: 1072 mm W: 350 mm H: 844 mm

* Other connections on request

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