



## Aalborg KBOG-E

Gas-fired dual-fuel burner for use with small-capacity Aalborg OS and OC marine boilers



For fuel flexibility, the Alfa Laval Aalborg KBOG-E dual-fuel modulating gas-fired burner is designed for use with small capacity Aalborg OS and OC boilers. It is suitable for firing liquefied natural gas (LNG) as an alternative to heavy fuel oil (HFO) and marine gas oil (MGO) onboard all types of commercial vessels.

### Application

Forthcoming environmental legislation calls for greater fuel efficiency, more stringent emissions reductions and expanded emission control areas (ECAs) covering a broad swath of oceans worldwide. These legislation initiatives will undoubtedly have an effect on bunker prices, especially as related to distillate fuels, as well as raise demands for fuel flexibility.

Ship owners and ship operators must therefore address these challenges to reduce the global environmental impact of international maritime activity while safeguarding business as well as the bottom line.

### Aalborg KBOG-E dual-fuel burner from Alfa Laval

Based on the proven Aalborg KBO-E modulating pressure-jet burner, the Aalborg KBOG-E is a reliable dual-fuel burner that meets the growing demand for fuel flexibility onboard the

world's fleet. When used with small capacity Aalborg OS and OC boilers, it is suitable for firing liquefied natural gas (LNG) as an alternative to heavy fuel oil (HFO) and marine gas oil (MGO) onboard LNG carriers as well as other commercial vessels, such as tankers, bulk carriers and container ships carrying LNG bunker tanks.

Safety, simplicity and reliability are the key points in Alfa Laval's design of the boiler fuel delivery system, that is now able to handle HFO, MGO, MDO and LNG supply. To ensure the Aalborg KBOG-E meets these requirements, Alfa Laval developed this modulating dual fuel burner for small capacity boilers in close cooperation with recognized classification societies. In addition, the Aalborg KBOG-E burner is based on Alfa Laval experience in supplying and servicing reliable industrial and offshore floating production systems that include liquid- and gas-fired boilers.

An extension of the proven Aalborg dual-fuel burner range for medium- and large-capacity boilers, the Aalborg KBOG-E dual fuel burner system requires two separate fuel supply systems – one for liquid fuel and one for gaseous fuel. The integrated Aalborg marine burner control system is also based on safe and proven technology used in industrial and offshore applications.

### Features and benefits

#### Ultimate fuel flexibility

The Aalborg KBOG-E dual fuel burner enables the use of liquefied natural gas (LNG) as a single fuel to generate steam onboard the ship as well as LNG in combination with HFO and/or MGO (non-simultaneous).

#### Legislative compliance

Using the Aalborg KBOG-E burner for firing LNG onboard vessels ensures compliance with ECA/SECA legislation related to sulphur oxide (SOx) emissions. Highly flexible and adaptable, it also provides the capabilities to meet future obligations of such legislation.

#### Potential fuel cost savings

The Aalborg KBOG-E has the potential to reduce the cost impact from possible distillate fuel price increases due to peak market demand.



### System Components



The scope of supply for the Aalborg KBOG-E dual-fuel burner system consists of the burner unit, control system and individual fuel delivery systems for gas fuel and for oil fuels.

### Capacity

The Aalborg KBOG-E dual fuel burner is designed to fit small Aalborg OS and Aalborg OC boilers ranging in steam capacity from 1.6 - 6.5 t/h and 0.75 - 5.0 t/h, respectively.

### Technical data for main components

#### General Burner Data

Excess Air Ratio:	1.2
Combustion Air Temperature:	45° C

#### Oil Fuel:

Oil Types:	DMX, DMA, DMZ, DMB according to ISO8217
Oil Supply Pressure:	30 barg

#### Gas Fuel:

Gas type:	LNG
Gas Supply Pressure:	4-10 barg

#### General Electrical Data

Main Voltage:	440/380 VAC
Pilot Voltage:	220/110 VAC
Frequency:	50/60 Hz

MDD00250EN 1508

### 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](http://www.alfalaval.com)