



# Aalborg OM-TCi

## Oil-fired steam boiler

Aalborg OM-TCi sets the new standard for fuel economy in marine boilers. The high efficiency means less fuel consumption, thereby lower operating cost for the ship owner and reduced emissions to our environment. Aalborg OM-TCi is a vertical oilfired boiler with a large furnace and an enhanced convection part. The standard boiler can be fired with various fuel oils.

Aalborg OM-TCi is a vertical cylindrical steam boiler in the capacity range of 8,000 - 20,000 kg/h. It has been developed based on our well-proven technology and long experience. The best features of the well-known Aalborg CHB (formerly UNEX™ CHB) and Aalborg OM (formerly MISSION™ OM) boilers have been incorporated into the new boiler design.

### Furnace

Aalborg OM-TCi consists of a large furnace with gas-tight membrane walls. A sufficient number of downcomers ensures safe natural circulation, and adequate furnace dimensioning guarantees good combustion, moderate loading and low material stresses.

### Convection part

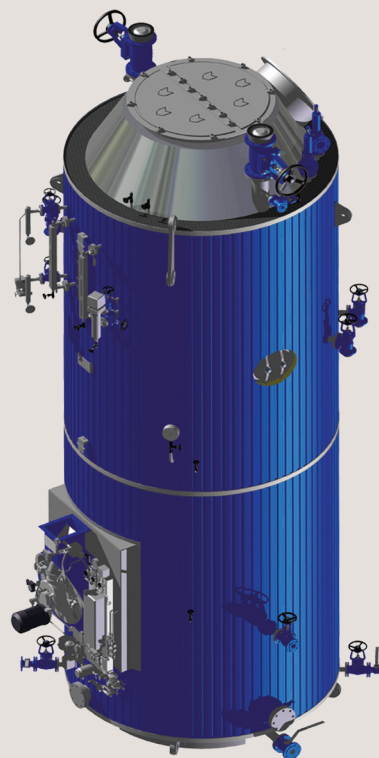
The cylindrical shell surrounds the smoke tubes. These smoke tubes have enhanced heat transfer features guaranteeing low exhaust gas temperature and thus high efficiency.

### Burner

The standard boiler can be delivered with an Alfa Laval burner with fully automatic operation and control. The burner is designed for a high turndown ratio with complete combustion at low oxygen levels. Alfa Laval's Aalborg KB rotary cup burner or Aalborg KBSA steam atomizing burners are offered based on application or customer preference.

### Control system

The burner and boiler can be monitored and regulated by Alfa Laval's own panels such as Aalborg Control, Aalborg Control Touch or the self-diagnostic Aalborg Steam Pilot safety and control systems.

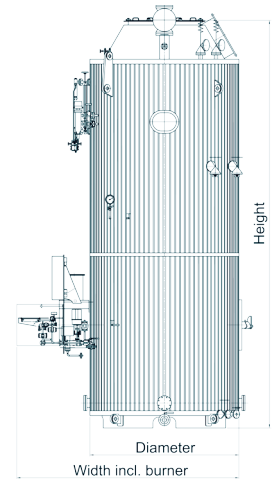


# Standard product range

# Capacity & dimensions

Steam capacity	Design pressure	Height*)	Diameter	Width incl. burner	Total dry weight **)	Water volume
kg/h	bar(g)	mm	mm	mm	kg	m <sup>3</sup>
8,000	10	6,995	2,450	3,870	16,200	7.6
10,000	10	7,125	2,600	3,870	18,600	8.4
12,500	10	7,250	2,900	4,290	22,100	10.6
16,000	10	7,740	3,100	4,490	26,200	11.9
20,000	10	7,920	3,500	4,930	32,300	15.3

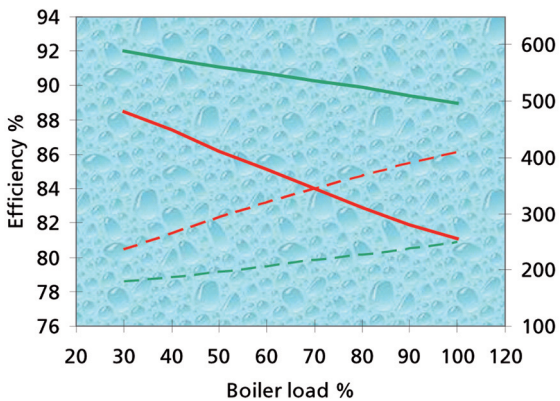
\*) If exhaust gas economizers are connected, the height is increased or a dual water level system is used  
 \*\*) boiler dry weight incl. burner, insulation, valves, and refractory.  
 In addition to our standard scope of supply, customized solutions can be offered based on specific requirements.



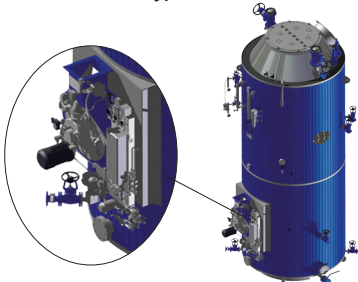
### High efficiency & environmental concern

The upgraded thermal design with optimized flue gas oxygen content ensures a total efficiency of 89–92% depending on boiler load conditions, which is in average 6% above the typical boilers in this capacity range. This means less fuel consumption and lower CO<sub>2</sub> and NO<sub>x</sub> emission levels. On a 16,000 kg/h boiler operating 5,000 hours at 75% load every year, this means USD 130,000\*) saved on fuel cost annually.

\*) at the fuel price of 500 USD/ton



The diagram shows a comparison of the boiler efficiency (based on LCV) and flue gas outlet temperature between the Aalborg OM-TCi boiler and a typical marine boiler



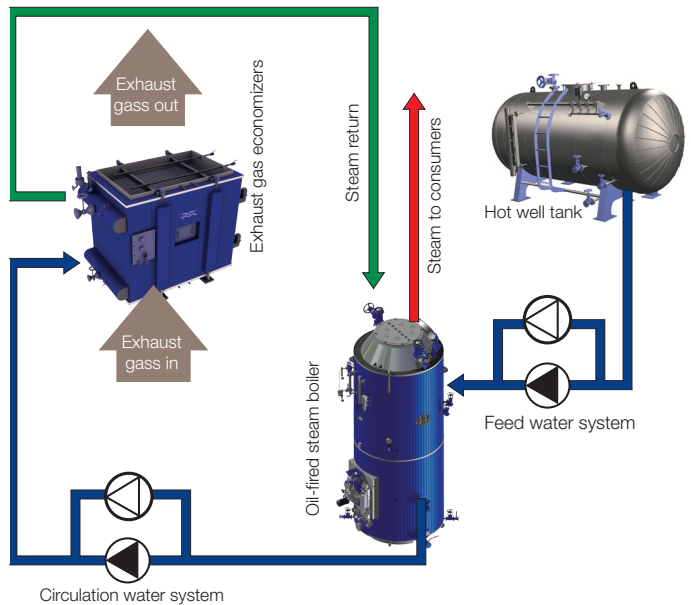
Alfa Laval's own design of rotary cup burners Aalborg KBE or the steam atomizing types Aalborg KBSA can be used on the Aalborg OM-TCi boiler. The burners have a long life cycle and are easy to maintain.

### Features & benefits

- Traditional and proven design - easy to operate and very reliable
- Standard product - fast engineering support and short delivery time
- Easy to clean
- High efficiency with low fuel consumption

### System solutions

Alfa Laval offers total solutions. All marine accessories for heat recovery and auxiliary boiler systems can be supplied by Alfa Laval. Aalborg OM-TCi can operate as a steam drum for the exhaust gas economizers onboard.



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### How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information.