

Oil-fired modular, Turbo Clean
intelligent composite boiler

MISSION™ OC-TCi

MISSION™ OC-TCi is a high performance, combined oil and exhaust gas-fired boiler, with a 1,200-6,500 kg/h capacity of the oil-fired section at 9 bar(g) design pressure.

MISSION™ OC-TCi is a vertical, cylindrical boiler with an exhaust gas section consisting of smoke tubes while the oil-fired section features helix tubes in the convection section.

Capacity range oil-fired section:
1,200-6,500 kg/h





The MISSION™ OC-TCi boiler can be installed on container ships, bulk carriers, LNG/LPG tankers and chemical/oil products tankers.

MISSION™ OC-TCi

The MISSION™ TCi series of boilers are Trbo Clean intelligent.

Description

MISSION™ OC-TCi is a high quality composite boiler, i.e. a combined oil- and exhaust gas-fired boiler, with a capacity range of up to 6,500 kg/h steam from the oil-fired section and up to 5,000 kg/h from the exhaust gas section. In simultaneous operation the capacity reaches 8,000 kg/h. Composite boilers offer the space-saving alternative of two boilers combined into one reliable production of steam both during voyage and port stay.

The convection part of the oil-fired part and the burner are fully integrated, and standard burners cannot be used for this boiler. The design of the MISSION™ OC-TCi has been significantly optimized to achieve a better self-cleaning effect in the smoke tubes and an improved water

level control. The gas velocity is relatively high compared to our other composite boiler designs, which improves the heat transfer. The high gas velocity also makes the boiler very effectively self-cleaning. It is a standardized, pre-assembled boiler plant that is fast and easy to install.

MISSION™ OC-TCi is designed according to Aalborg Industries' modular MISSION™ boiler concept. MISSION™ OC-TCi engages less engine floor area and has a lower weight than older designs of composite boilers.

Construction

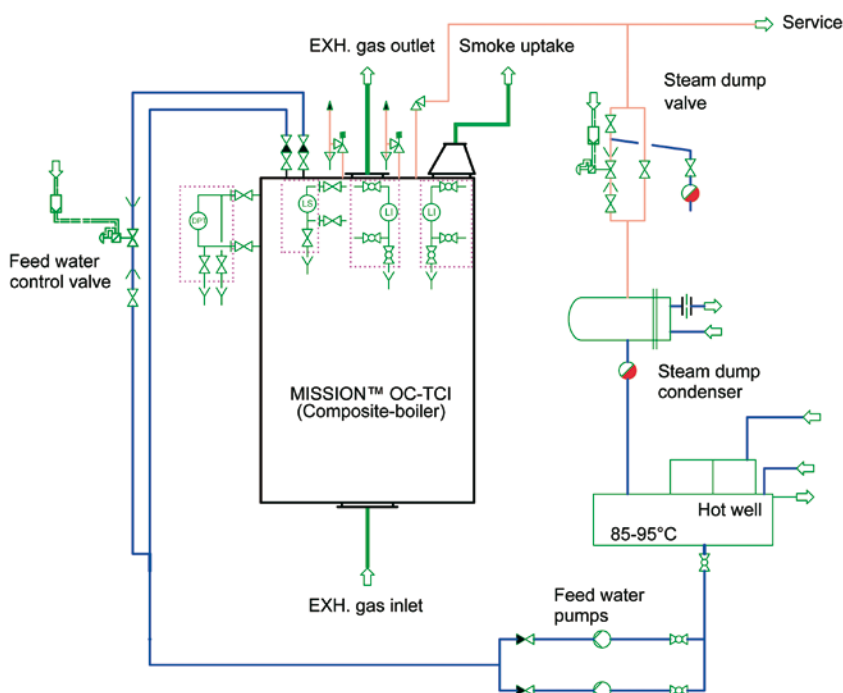
MISSION™ OC-TCi is a vertical boiler with an exhaust gas section consisting of smoke tubes. The oil-fired part consists of a furnace, steam space, and the convective section, which consists of helix tubes with a turbo cleaning effect, wherein the flue gas flows. The boiler pressure part is manufactured from mild steel able to withstand high temperatures.

Burner

MISSION™ OC-TCi is equipped with a monobloc type pressure atomizing burner, type KBPT™. Servicing the burner is easy as a top plate can be opened and the lance can be withdrawn in order to service the nozzle and lance. Access to the oil system and electrical components is possible through two separate covers on the side of the burner. The burner housing is mounted on the boiler front, angled 15 degrees downwards against the furnace bottom. This allows for a longer flame and offers better utilization of the furnace. The flow of the flame becomes optimal, and the result is high performance combustion.

Control system

The reliable and user-friendly microprocessor based MISSION™ CONTROL TOUCH system facilitates the operation and con-





trol of the MISSION™ OC-TCi boiler. The intelligent control system provides fully automatic operation of the boiler plant and the pressure jet burner.

The MISSION™ CONTROL TOUCH system includes burner load and sequence controls, water level and safety device, burner motor and fuel heater starter, and starter for the fuel oil pumps.

Silencer

The composite boiler can be supplied with a compact silencer to suit any type of diesel engine. The silencer is based on well-proven technology. The optimum silencer dimensions are unique for each installation and calculated on the following basis:

- Engine type
- Exhaust gas amount and temperature at 100% engine load
- Required level of silencing
- Exhaust gas system dimensions

Virtually no on-site assembling

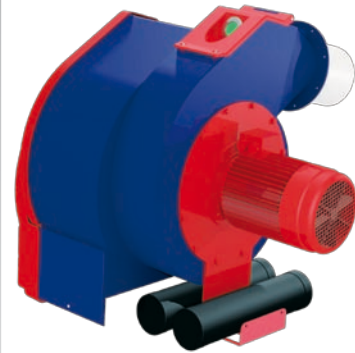
MISSION™ OC-TCi can be delivered fully assembled so only the burner needs to be mounted on-site. Installation is a matter of hooking up pre-mounted fittings with connections situated almost exclusively on the boiler top. Inlet and outlet boxes are integrated. The boiler foundation is prepared for welding to the deck.

Project and engineering hours cut to a minimum

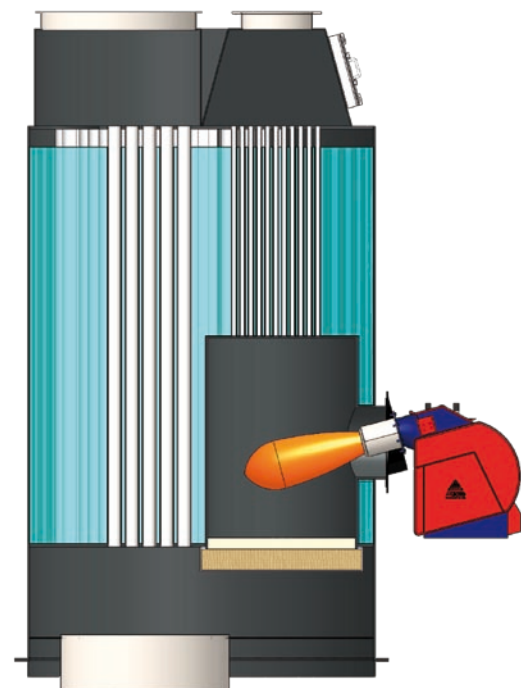
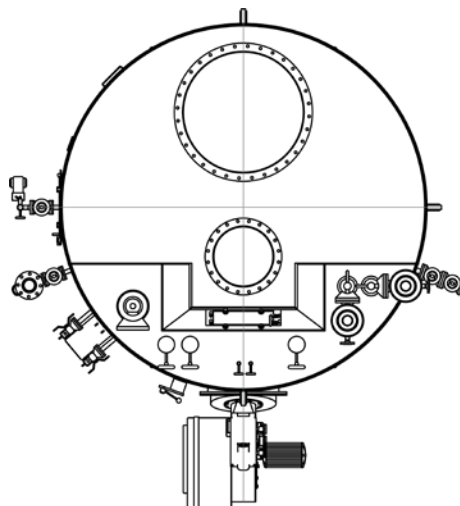
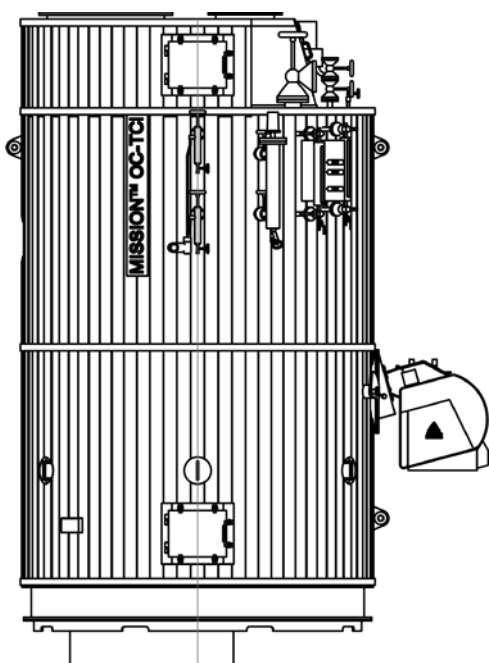
All information on our boilers is available immediately upon request. Due to our parametric design methods, the optimal solution can be identified and quoted instantly. This includes layout drawings for design of the engine room.

Easy inspection and maintenance

MISSION™ OC-TCi has adequate space for inspection and maintenance in the steam/water space. The boiler can easily be water washed or mechanically cleaned through the boiler uptakes, and the smoke tubes are easy to clean.



MISSION™ OC-TCi is equipped with a monobloc type pressure atomizing burner, type KBP.





The MISSION™ concept

Aalborg Industries' high quality and documentation standards are evident in our MISSION™ concept for marine boilers, burners and control systems. The MISSION™ concept provides detailed configurations and well defined options to shipyards and shipowners.

The MISSION™ series embodies reliable, high quality, innovative and environmentally friendly solutions. This generation of boilers, together with our range of burners, was developed as high performance equipment of superior quality from quotation and documentation through to manufacturing and plant commissioning.

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