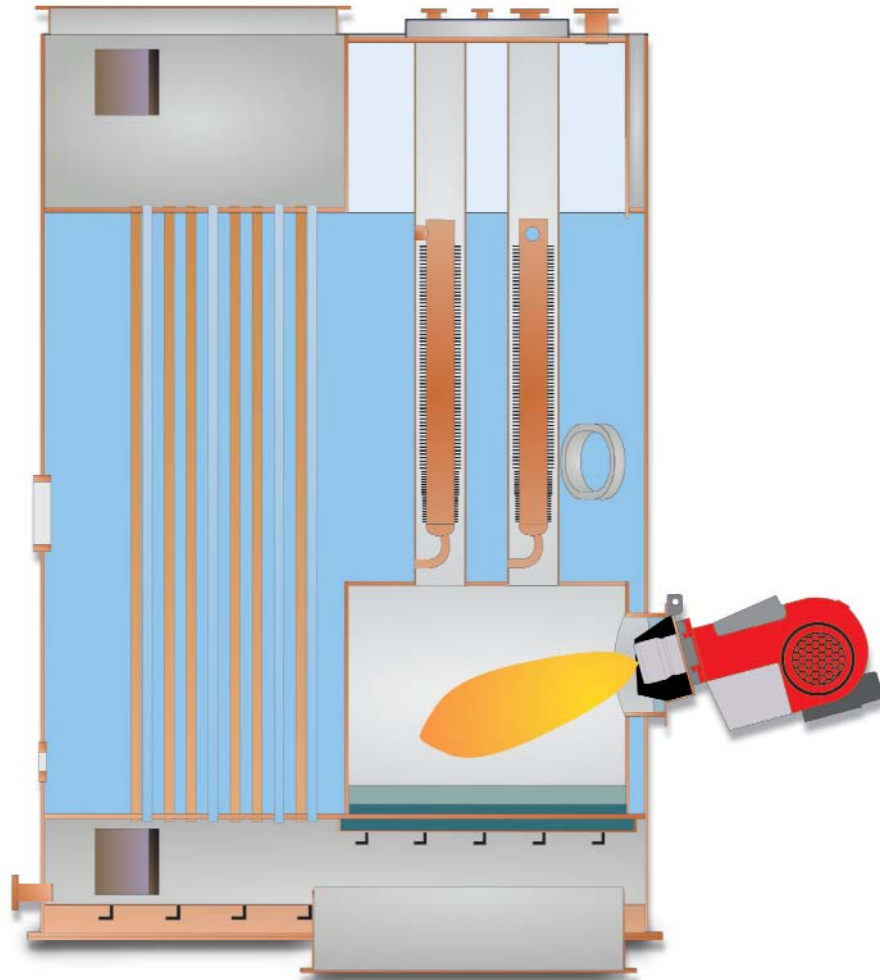


MISSION™ OC



MISSION™ OC is a high performance, combined oil and exhaust gas-fired boiler, with a 0.75-5 t/h capacity of the oil-fired section at 9 bar (g) design pressure. MISSION™ OC is a vertical, cylindrical boiler with an exhaust gas section consisting of bare smoke tubes while the oil-fired section features pin tubes in the convection section.

Composite boiler MISSION™ OC



The boiler design has integrated pin tube elements. The pin tube elements support both the furnace and the boiler top plate. The design has been significantly optimised to achieve lower weight and improved strength. The result: longer lifetime of the pin tube by a factor of 8.

Description

MISSION™ OC is a high quality composite boiler design offering the space-saving alternative of two boilers combined into one. MISSION™ OC is a combined oil and exhaust gas-fired boiler with a capacity range of up to 5 t/h steam from the oil-fired section and up to 3 t/h from the exhaust gas section. It is a standardised, preassembled boiler plant that is fast and easy to install. MISSION™ OC is designed according to Aalborg Industries' modular MISSION™ boiler concept. MISSION™ engages less deck area and has lower weight than older designs of composite boilers

Construction

MISSION™ OC is a vertical boiler with an exhaust gas section consisting of bare smoke tubes. The cylindrical shell surrounds the smoke tubes, the furnace, the steam space and the convective section, which consists of pin tube elements. The boiler pressure part is manufactured from mild steel able to withstand high temperatures. Stress concentrations in corners are minimised by the simple design of cylindrical shells with flat plates of equal thickness.

Burner

MISSION™ OC is equipped with a monobloc type pressure-jet burner. The burner is hinge-mounted and can be swung out for service and easy access to inspect the furnace. The burner

housing is mounted on the boiler front, angled 15 degrees downwards against the furnace bottom. This allows for a long flame and offers better utilisation of the furnace.

The flow of the combusting particles becomes optimal, and the result is a high performance combustion - even with the lowest grades of fuel.

As an alternative, MISSION™ OC can be equipped with a rotary cup burner.

Control system

The reliable and userfriendly micro-processor based MISSION™ control system facilitates the operation and control of the MISSION™ OC boiler. The control system provides fully automatic operation of the boiler plant and the pressure jet burner.

The MISSION™ control system includes burner load and sequence controls, water level and safety device, burner motor and fuel heater starter, and starter for 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

Customer benefits for shipyards and owners

MISSION™ OC is designed to meet the ever increasing demands for rational and cost effective shipbuilding - in every phase of the project.

Virtually no on-site assembling

MISSION™ OC can be delivered fully assembled.

Easy installation

Installation is a matter of connecting up with premounted fittings and connections situated almost exclusively on the boiler top. Inlet and outlet boxes are included and the boiler foundation is prepared for welding to the deck. When opting for the composite boiler solution, only one boiler has to be installed and the usual circulation pump is superfluous.

Project and engineering hours cut to a minimum

All information regarding boiler plants is available immediately upon request. Due to parametric design methods, the optimal solution can be identified and quoted instantly. This includes layout drawings for design of the engine room. MISSION™ OC is an advanced composite boiler in standardised design, offering thoroughly tested and optimised solutions. Due to the composite boiler functioning as both oil- and exhaust gas-fired boiler, a high degree of redundancy is obviously built into the system.

Easy inspection and maintenance

MISSION™ OC 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.

