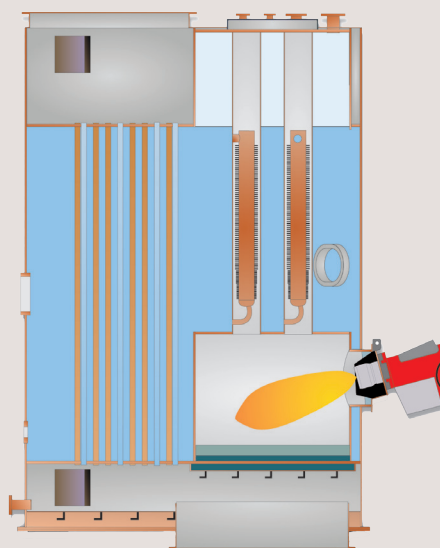




Aalborg OC

Modular composite boiler



Aalborg OC is a high performance, combined oil and exhaust gas-fired boiler, with a 750-5,000 kg/h capacity of the oil-fired section at 9 bar(g) design pressure. Aalborg 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.

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

Aalborg OC is a high quality composite boiler design offering the space-saving alternative of two boilers combined into one. Aalborg OC is a combined oil and exhaust gas-fired boiler with a capacity range of up to 5,000 kg/h steam from the oil-fired section and up to 3,000 kg/h from the exhaust gas section. It is a standardised, preassembled boiler plant that is fast and easy to install even if we design the boiler from case to case to get optimum design. Aalborg OC is designed

according to Alfa Laval's modular Aalborg boiler concept. Aalborg OC engages less deck area and has lower weight than older designs of composite boilers.

Construction

Aalborg 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

Aalborg OC is equipped with a Aalborg type pressure-jet burner or Aalborg types rotary cup burner. The burner is 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 and the result is a high performance combustion - even with

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, Aalborg OC can be equipped with a rotary cup burner.

Control system

The reliable and userfriendly microprocessor based Aalborg control system facilitates the operation and control of the Aalborg OC boiler. The control system provides fully automatic operation of the boiler plant and the pressure jet burner. The Aalborg 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

Aalborg 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

Aalborg 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

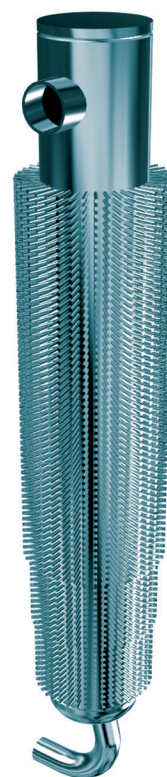
installed and a circulation pump is superfluous.

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. Aalborg 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

Aalborg OC has adequate space for inspection and maintenance in the steam/water space. The boiler can easily be



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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 to access the information.