# Alfa Laval Aalborg D

The Alfa Laval Aalborg D design is compact, efficient, reliable and available for:

- Saturated steam boilers
- Superheated steam boilers
- Hot water heaters

These can be provided as complete modules that reduce installation time at the yard.

The Aalborg D design employs “top-fired” burner technology, which provides optimal flame conditions that result in excellent combustion. The burner system can use both steam and air for fuel atomization and can be fired with multiple fuels (MDO/MGO, HFO, crude oil and fuel gases).

The Aalborg D design is based on a vertical “D”-shaped boiler configuration with steam and water drums interconnected via steam-generating tube banks.

The furnace is made of membrane walls that form a fully water-cooled furnace. The convection section consists of straight pin tubes with bent pins, providing high heat transfer coefficient and low pressure loss.

In a steam boiler configuration, effective natural circulation is ensured at any operational condition through careful design of the pressure part. In a hot water heater configuration, effective circulation is ensured through careful design of the internal water passes and passages. In both cases, the results are excellent water circulation and heat transfer that prevent overheating and tube burnout.

Steam boiler operation is based on steam pressure control with feed-forward strategies and up to three-element drum level control that provide quick-acting automatic operation. This ensures high steam quality, stable steam pressure and drum level control, even during boiler load changes.

Hot water heater operation is based on discharge temperature control to ensure stable and reliable control in all heater load scenarios.

The Aalborg D design is the ideal solution when large capacities are required for service steam, power generation and hot water heat exchange applications.

- Production of steam and hot water
- Steam boiler capacities up to 130 t/h
- Design pressure up to 40 bar(g)
- Superheating temperature up to 400 °C
- High steam quality for power generation
- Hot water heater capacities up to 90 MW
- Multi-fuel combustion technology (MDO, HFO, crude oil and fuel gases)
- Integrated burner design that minimizes refractory
- Low operational cost, high efficiency
- Reliable operation with more than 99 % uptime