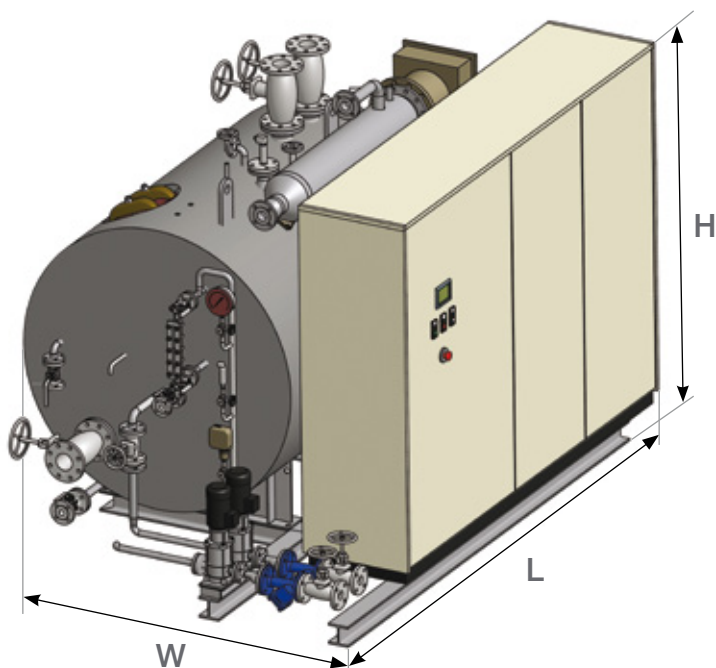


PARAT MEL

Electrical Steam Boiler



Technical data



- **Electrical element boiler with compact design**
- **Rugged design for Marine use**
- **Separate boiler and electrical cabinet. Fulfills NEK 400**
- **Approved by DNV, LRS, BV, GL, etc.**
- **Low turndown, 1:100**
- **Available in Direct Current version**
- **Available as Combined Steam and Hot water boiler**

The PARAT Electrical element boiler can be delivered with capacity up to 5000 kW. With our 40 years of experience in marine boilers PARAT has landed on a rugged design that fulfills all class requirements.

The electrical element boiler is very compact, and one of the greatest advantages with this product is the possibility of low load regulation, down to 15 kW. No smoke stack is needed, thus saving space and costs.

The electrical cabinet is not directly connected to the boiler. This ensures a low temperature in the electrical components. The cabinet is standardized, and type approved according to NEK 400. Included in the cabinet is the main switch, fuses, contactors and a complete safety and control system. This system is based on a Siemens PLC SIMATIC S7 system with a touch panel for local operation. Communication with the main control system is possible, via analog and digital signals to bussystems as PROFIBUS and MODBUS. The safety system is independent from the PLC system.

For vessels with ORO operation class, Parat has developed a successful package containing a heat exchanger for the hot water system and steam lances for heating of the ORO tanks.

Capacity (kW)	600	1250	1600
L (mm)	2200	3500	3500
H (mm)	2300	2300	2300
W (mm)	2000	2360	2500

The patented Parat **MEL-C** was developed to meet the demand for a compact and flexible system that allows the operator to use one boiler system for both steam and hot water production. In normal operation the boiler generates hot water at an operating temperature of 90°C. When there is a requirement for steam production the water level in the boiler is reduced to provide a sufficient steam separation area. Hot water production is maintained separately by an electric heater in a bypass circuit.

The **MEL-DC** was developed to enable connection to direct current power supply. It is based on our standard MEL low Voltage boiler but with specialized immersion heaters and control panel.



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