

## **GRATE HOT WATER BOILER TYPE – VKH-E**

### **Use:**

The hot water boiler VKH-E is designed for production of hot or warm water with nominal working overpressure up to 2 MPa and up to an outlet water temperature of up to 190°C. Robust construction, high efficiency, simple installation and long operating life make VKH-E boilers one of the top products.



### **Technical description:**

This is a new concept of coal-fired boilers following the proven previous VKP series. The main differences are that the boiler is fully membranes, with easily accessible pressure parts of the boiler in case of repair, and modifications of the boiler due to environmental regulations are also taken into account.

The boiler is designed as membrane, water-tube, without a drum, with forced water circulation.

The pressure system is self-supporting, block-shaped. The lower frame of the pressure system consists of two lateral chambers interconnected by transverse chambers from which all the tubes delimiting the combustion chamber and the second draught are led out. The combustion chamber is formed by membrane walls. In the upper part of the combustion chamber there is a tube grid. In the second draught, the main heating surface of the boiler is formed by tube bundles.

As a standalone block there is an air heater.

Insulation made of mineral wool is suspended on the membrane walls of the combustion chamber.

The whole boiler has a steel casing from the galvanized sheet.

Combustion devices consist of a chain counter grate and fuel feeding with spreader. The boiler is delivered in separate transport blocks comprising a substantial part of the delivery.

The boilers burn brown coal (soft coal) and black coal (hard coal) including biomass.

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Boiler type - size	VKH-E	3,5	5,5	8	11,5	17	22
Nominal heat output	MW	3,5	5,5	8	11,5	17	22
Nominal water pressure Max.	MPa	2					
Outlet water temperature Max	°C	190					
Inlet water temperature Min	°C	70					
Informative efficiency	%	≥ 87					