ABKV - boilers operating on the volcanic principle, with a single bunker arch, designed to burn dry wood with moisture content up to 41%. Boilers of this type are manufactured with a power range from 150 kW to 1300 kW.

ABKV model boilers are equipped with automated fuel feeding systems, therefore dry biofuel such as wood chips, sawdust, or other dry types of biomass are possible fuels. Additionally, bulk biomass can be burned by feeding it through the service doors. The boiler is supplied together with a fuel screw feeder into the bunker. Fuels used include chips, sawdust, pellets, and other dry fuels.

The efficiency coefficient of this type of biomass boiler reaches up to 82%.

The control range of the ABKV model boiler is 30%-100%.

## Boiler specification and functions:

- Primary air is supplied under the grate.
- Secondary air is supplied into the bunker.
- Pneumatic heat exchanger cleaning device (optional).
- Screw fuel dosing into the bunker.
- Protection against fuel dosing screw jamming.
- Primary and secondary air heated by exhaust combustion products.

## Boiler automation control capabilities:

- Fuel dosing into the bunker.
- Operation of fuel storage and conveyors.
- Primary and secondary air fans.
- Maintenance of set draft in the bunker.
- Combustion process control based on the " $\lambda$ " probe.
- Control of the boiler recirculation pump or three-way valve based on the set temperature.
- Sending emergency messages via GSM.
- Remote control of the boiler (via the Internet).