

ABKH type

ABKH type grate-fired boilers are designed to be able to burn fuel up to 55% of moisture content. Boilers of this type are produced from 500 KW to 3000 KW. Suitable fuels for these boilers are wood chips, sawdust, pellets and other bulk fuels. The control range of this model is 30% -100%.

Boiler specification and functions:

- The combustion stove is equipped with a movable grate.
- Annealing arches are installed in the furnace.
- Primary air (2 or 3) zones is supplied to the individual combustion zones.
- Secondary air is supplied to the furnace.
- Automatic ash removal from zone under the grate.
- Automatic ash removal from the furnace.
- Pneumatic heat exchanger cleaning device.
- Screw or hydraulic fuel supply to the furnace.
- Protection against overheating of furnace.
- Protection against overheating of boiler.
- Primary and secondary air is heated by combustion products.

Boiler automatics control options:

- Fuel storage and conveyor work.
- Fuel supply to the furnace.
- Grate movement hydraulics.
- Primary and secondary air blower.
- Removal of ash from the zone under the grate.
- Ash removal from the furnace.
- Heat exchanger request algorithm.
- Support for the required traction in the furnace.
- Smoke recirculation (optional).
- Control of the combustion process according to the "λ" probe.
- Control of boiler recirculation pump or three-way valve according to set temperature.
- Sending emergency messages via GSM connection.

Control of boiler	ABKH-500	ABKH-750	ABKH-950	ABK-1250	ABK-1500	ABK-2000	ABK-2500	ABK-3000	
Rated thermal input (Qmin.) - (Qk), kW	180-600	250-750	285-950	390-1300	450-1500	600-2000	750-2500	900-3000	
Boiler efficiency factor%	88								
Maximum permissible temperature of the heat carrier oC	110								
Return temperature of the heat carrier not less than: oC	60								
Boiler operating pressure, bar	6								
Furnace volume m3	1.42	2.13	2.96	5.21	6.08	9.4	12.5	16.98	
Furnace grate area M2	1.43	2.23	2.83	4.63	4.68	5.88	7.81	9.3	
Boiler heating surface area m2	47	65	86	117	134	181	218	-	
Exhaust smoke temperature, oC, not more	170								
Boiler dimensions, mm, no more									
- height	3250	3500	3500	4190	4190	4650	5740	6076	
- width with ash removal screw	2100	2350	2450	2370	2370	4150	2572	2612	
- length	4380	5345	5345	5770	6020	6480	8344	9104	
Nominal heat carrier flow at Δt 20 oC t / h	22.62	33.9	42.9	56.56	67.9	90.50	113.13	135.76	
Minimum heat carrier flow at Δt 20 oC t / h	6.78	10.2	12.9	16.96	20.36	27.15	33.93	27.15	
Flue dimensions D, mm	320	400	480	480	480	600	630	650	
Heat carrier input/return dimensions	80	80	100	100	125	125	150	150	
Mass, kg, not more	6700	11700	15850	24200	29000	37000	52000	62000	