

BIOWAT Boilers

These are batch boilers designed to heat residential houses and business facilities, having a surface area of up to 900m². They heat, using wood and straw without the need to install accumulation tanks. The boilers burn fuel slowly. The combustion rate is manually adjusted via an air damper. The boilers work on natural draught.

The exit fuel chamber is fully clad with fireclay bricks. Gases flow from the fuel chamber through a burner to an upper, ceramic combustion chamber. Primary air is mixed with secondary air in the burner. With the combustion chamber, the exhaust gas flows into the box-exchanger.

Biowat burners are mounted directly onto the existing system instead of, or parallel with, the coal boiler. The boiler operates in the mandatory 'open' system.

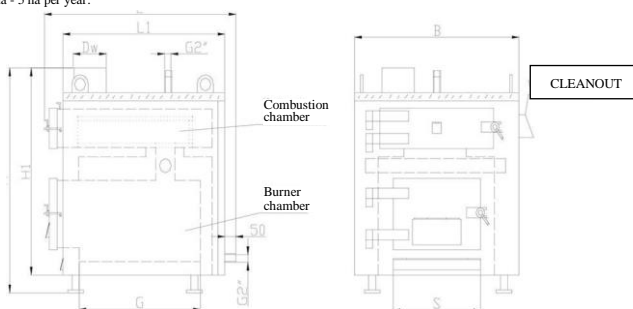
"U" boilers are wood-burning. Straw may, however, be used - with the provision that a bale measures 80x45x40 cm. These can be installed in the basement. They then operate gravitationally, without a circulation pump. Their primary fuel is wood. U-300 boilers are capable of burning wood up to 6m in length. The U-360 to U-1100 boilers can take "wood-pulp" with a length of up to 1.2 m.

The basic fuel for "S" boilers is straw. During average winter temperatures, the boilers are loaded with fuel twice per 24 hours. Such as a 250m² house will need the straw yielded by an area between 4.5 ha - 5 ha per year.



Ash removal should be carried out every few days. Ash is a phosphorus-potassium fertiliser.

The boilers can be loaded with fuel having up to 20% humidity; neither the species of the wood nor the use of tree stumps is of any consequence, however, the burning of sawdust only is not allowed: it must be mixed with, or put on top of, the straw. The boiler may be re-fuelled whilst in operation.



Type of Boiler	L	H	L1	H1	D	Fuel chamber				Weight [kg]	Surface heated [m ²]	Power [kw]	Net price [PLN]
						G	W	S	Capacity [l]				
1470	898	1482	1200	1135	250	926	530	546	245	1000	200	25	8 350
1525	898	1482	1325	1135	250	1050	530	546	300	1100	250	28	9 150
1795	898	1482	1525	1135	250	1250	530	546	360	1250	280	32	9 600
1525	1112	1482	1325	1135	250	1050	530	760	420	1300	400	40	10 300
1915	1234	1652	1576	1156	320	1250	560	858	600	2000	500	60	14 150
2035	1330	1732	1650	1342	320	1250	730	900	820	2600	600	80	16 000
1775	1485	2100	1610	1930	320	1250	800	1100	1100	3200	800	100	18 300
1470	1402	1892	1200	1545	250	926	934	1050	4 bales of straw	1800	200	25	13 300
1870	1402	1892	1600	1545	250	1326	934	1050	6 bales of straw	2200	250	30	15 050