

## BIOWARMER STANDARD

Biowarmer is a steel, one function boiler. It is a multifuel device with automatic feeding system, designed to burn biomass. Biowarmer can be installed in both boiler rooms new and retrofit to automate the process of burning, improve ease of use as well as due to the reduction of harmful emissions gas into the atmosphere.

### FUEL

#### Recommended fuel:

- sawdust briquette diameter 50mm,
- sawdust containing a maximum of to 10% non burned-part.

Maximum humidity of the fuel should not exceed 20%. The calorific value should be at least 16 MJ/kg for the nominal power of the boiler.

At another fuel or humidity producer is not guaranteed achieve nominal power of the boiler and successful operation. Using too wet fuel shortens the use of the boiler.

#### Alternative fuels for Biowarmer Standard:

- Cereal straw briquettes with a diameter of 50 mm (may be up to 80mm with no high hardness)
- grains: oats
- stones cherries

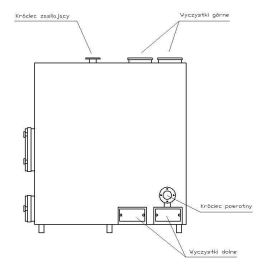
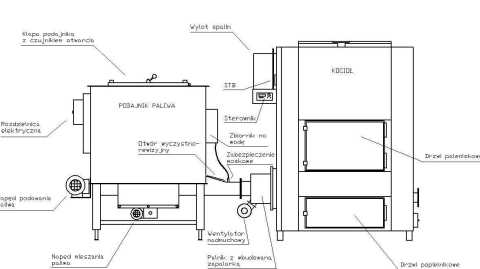
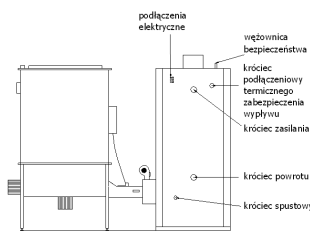
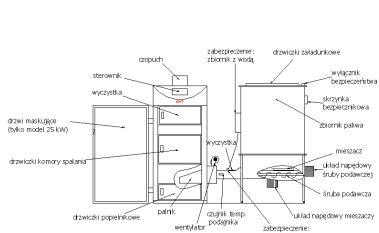


### Technical Data

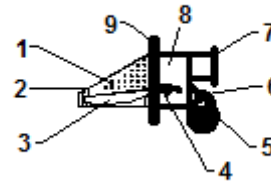
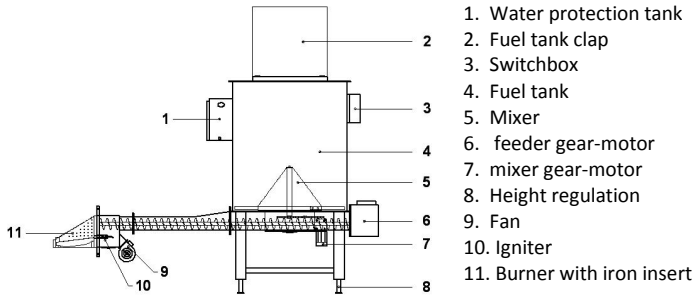
Model		Biowarmer	Biowarmer 50*	Biowarmer	Biowarmer	Biowarmer	Biowarmer	Biowarmer	
Power Range	Briquettes from sawdust	25	50	75	100	150	200-250	300-350	
Efficiency	%	78-82							
Water capacity	dm <sup>3</sup>	120	190	260	360	470	1600	1820	
Max working pressure	bar	2							
Min. outlet temperature	°C	65							
Min. Outlet temperature	°C	90							
Fluegases temperature at nominal power	°C	200-340 °C							
Fluegases temperature at minimal power	°C	100-140							
Class PN-EN – 303-5		3							
Water-side resistance; Δt=10K	mbar	2+20							
Water-side resistance; Δt=20K		0,5+5							
Chimney pressure	Pa	15-20	20-25	20-25	25-30	25-30	25-30	30-35	
Recommended chimney height	m	8	8	8-10	8-10	12	14	14	
Recommended chimney section	cm <sup>2</sup>	400	400	600	600	600	1200	1500	
Fuel tank capacity	dm <sup>3</sup>	620	620	1130	1130	1130	1130	Na	
Fuel consumption	Nominal Power: sawdust briquettes	kg/h	6,9	13,8	20,7	27,6	41,4	55,2	82,9
Approximate working time at one load		h	51,2	25,6	31,1	23,3	15,6	11,7	-
Power consumption		W	850	850	850-2250	850-2250	850-2250	850-2250	850-2250
Powerconsumption of the igniter (optional)		W	400						
CO Emission (O2=10%)	mg/m <sup>3</sup>	2100-2610							-
OGC Emission (O2=10%)	mg/m <sup>3</sup>	85-94							-
Dust Emission (O2=10%)	mg/m <sup>3</sup>	95-130							-

### BOILER CONSTRUCTION 25-100

### BOILER CONSTRUCTION 250-350



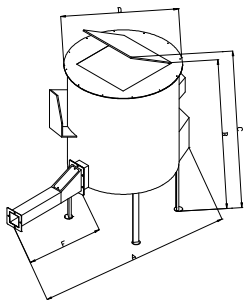
**BIOWARMER STANDARD SPECIFICATION SHEET**  
Construction of the biomass combustion in the boiler Futura Bio Standard



**Dimensions**

BIOWARMER Standard 25	BIOWARMER Standard 50	BIOWARMER Standard 75, 100					
BIOWARMER Standard 150	BIOWARMER	Standard 250, 300-350					
BIOWARMER St	25	50	75	100	150	200-250	300-350
<b>A</b>	1570	1660	1865	1895	1960	2100	2400
<b>B</b>	560	750	845	1010	1010	1550	1550
<b>C</b>	1025	1130	1310	1310	1350	3000	3000
<b>D</b>	850	1025	1265	1430	1435	1900	1900
<b>a</b>	½"	½"	½"	½"	½"	¾"	¾"
<b>b</b>	1 ½"	2"	2"	2"	2"		
<b>c</b>	1 ½"	2"	2"	2"	2"		
<b>d</b>	160	200	250	250	300	510x315	510x315

**Dimensions of the fuel tank**



Tank BIO St	25-50	75-200
<b>A</b>	2040	1950
<b>A*</b>	3040	2950
<b>B</b>	1600	1600
<b>C</b>	2300	2300
<b>D</b>	960	1270
<b>F</b>	740	360
<b>F*</b>	1740	1360

**CONTROLLER**



**RK2006 L2B**

Supports the feeder, fan, C.H. pump, domestic hot water pump and cooperates with a room thermostat. It has a double thermal protection, autodiagnostic system and total bacteria control process in hot water tank.

**ADVANTAGES OF THE BOILER**

- Automatic combustion control
- Electric ignition
- Large fuel tanks
- Possibility to arrange your own tank
- Can be installed ash removal system