

Log Wood Boilers (US & CAN)

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Boiler Model	Nom H. Output kW	Fuel	Efficiency based on LCV %		Carbon Monoxide mg/MJ		Particulates mg/MJ		NOx mg/MJ		Organic Carbon mg/MJ		Nom. Electrical Consumption W		
			Full Load	Part Load	Full Load	Part Load	Full Load	Part Load	Full Load	Part Load	Full Load	Part Load	Full Load	Part Load	StandBy

LOG WOOD BOILERS

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FHG Turbo - NORTHERN AMERICA ONLY - Size of storage tank dependant on modulation possibility

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FHG Turbo 20	20,0	Logwood	90,9	---	76	---	19	---	91	---	3	---	107	not reg.	not reg.
FHG Turbo 30	30,0	Logwood	90,8	90,9	110	103	25	12	100	88	3	3	109	99	not reg.
FHG Turbo 40	40,0	Logwood	90,5	91,4	136	122	23	not reg.	100	not reg.	4	5	135	not reg.	not reg.
FHG Turbo 50	50,0	Logwood	90,2	91,8	161	141	20	not reg.	100	not reg.	5	7	160	not reg.	not reg.

Boiler Model	Nom H. Output MBtu / h	Fuel	Efficiency based on HCV %		Carbon Monoxide lbs. / MBtu		Particulates lbs. / MBtu		NOx lbs. / MBtu		Organic Carbon lbs. / MBtu		Nom. Electrical Consumption W		
			Full Load	Part Load	Full Load	Part Load	Full Load	Part Load	Full Load	Part Load	Full Load	Part Load	Full Load	Part Load	StandBy

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Boiler Model	Nom H. Output MBtu / h	Fuel	Efficiency based on HCV %	Carbon Monoxide lbs. / MBtu	Particulates lbs. / MBtu	NOx lbs. / MBtu	Organic Carbon lbs. / MBtu	Nom. Electrical Consumption W							
FHG Turbo 20	68	Logwood	81,8	---	0,18	---	0,044	---	0,21	---	0,006	---	107	not reg.	not reg.
FHG Turbo 30	102	Logwood	81,7	81,8	0,26	0,24	0,058	0,028	0,23	0,20	0,006	0,007	109	99	not reg.
FHG Turbo 40	136	Logwood	81,5	82,2	0,31	0,28	0,052	not reg.	0,23	not reg.	0,009	0,012	135	not reg.	not reg.
FHG Turbo 50	171	Logwood	81,2	82,6	0,37	0,33	0,046	not reg.	0,23	not reg.	0,012	0,016	160	not reg.	not reg.

Testing Procedure:

- 1) Testing fuel: Logwood 20" length (beech logs during testing), split into pieces max. diameter 6", water content of fuel shall be from 15% to 25% of total mass (average 16% during type testing).
- 2) Firing one full filling to reach a stable basic firebed; during first fire adjust all settings for desired nominal heat output test or part load test (< 50% nominal).
- 3) Register fuel mass and fill up filling chamber totally.
- 4) Registration of output heat, ambient, boiler and exhaust gas temperature and emissions starts directly after closing filling door.
- 5) Measurement of dust (PM) has to be performed at least 4 times for 30 minutes each during each firing batch.
- 6) If firebed has reached start level: another full filling has to be charged into the filling chamber for nominal heat test; part load tests end at this point.
- 7) All testing and registration runs from end of first filling until reaching start level at last firebed, including any interruptions, even during refilling.
- 8) All emission and temperature measurements are calculated by average values during testing / registration.
- 9) All mass or energy balancing is done from start to end of testing / registration.
- 10) All emission values are normalized to 0°C (32°F), water free base, normal ambient pressure 101,325 Pa (14.5 psi)
- 11) Emission values are related to exhaust gas volume at a special oxygen reference or related to fuel heat input.