Vermont Certified Outdoor Wood Boilers - Updated October 2016

The following table lists OWBs certified by Vermont to meet the Phase II particulate emissions standard. OWB models are listed from lowest to highest emissions to the atmosphere based on lb/mmBTU of heat output.

After March 31, 2010, all OWBs sold or purchased for installation in Vermont must be certified to meet the Phase II standard of 0.32 lb/mmBTU heat output.

OWB Certification Application Form (pdf)

Phase II Outdoor Wood Boilers with Emissions Below 0.32 lb/mm BTU output

Manufacturer	Model & Fuel Type	8-hr. heat Output Rating* (BTU/hr)	Average Emission Rate (grams/hr)	Maximum Emission Rate (grams/hr)	Average Emission Rate (lbs/mmBTU heat output)
Central Boiler, Inc.	Maxim M255P/M 255PE Pellet	165,215	0.8	3	0.04
SteelTech, Inc.	G200-2 Cordwood	111,315	1.74	5.11	0.067
Heatmor, Inc.	200SSP Pellet	162,793	1.1	2.1	0.07
Maine Energy Systems LLC	PES 56 Wood Pellets	199,408	1.7	3.6	0.07
NBE Production A/S	Kedel RTB 102 Wood Pellets	87,379	0.7	1.8	0.07
Northwest Manufacturing, Inc.	Woodmaster Clean Fire 400 Cordwood	88,750	1.04	3.6	0.07
SteelTech, Inc. (Heatmaster)	G100 Cordwood	47,772	1.04	4.26	0.07
NBE Production A/S	Kedel RTB 170 Wood Pellets	162,191	1.4	3.6	0.079
Polar Furnace	G3 Cordwood	142,533	2	5.9	0.08
NBE Production A/S	Kedel RTB 54 Wood Pellets	59,785	0.5	1.4	0.081
Dectra Corporation	Garn WHS 2000 Cordwood	106,109	1.7	6.1	0.09

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Dectra Corporation	Garn WHS 1500 Cordwood	88,519	2.9	10.5	0.13
Hawken Energy	GX 10 Cordwood	76,887	2.2	8.4	0.14
Econoburn Boilers, LLC	EBW200-170 Cordwood **	Not Determined	2.7	6.68	0.162
Central Boiler, Inc.	Classic Edge 350 Cordwood	67,702	3.6	7.9	0.18
Central Boiler, Inc.	Classic Edge 750 Cordwood	186,669	4.6	15.3	0.18
Central Boiler, Inc.	E-Classic 1450 Cordwood	120,529	4.7	11.9	0.18
Central Boiler, Inc	E-Classic 3250 IR Cordwood	244,174	3.81	6.65	0.18
Mahoning Outdoor Furnaces, Inc.	Sky Series V Cordwood	82,594	2.44	4.46	0.18
Piney Manufacturing (Portage & Main)	Enviro Chip 500 Woodchips	280,000	5.4	12.6	0.19
Polar Furnace	G2 Cordwood	66,897	3.5	6.1	0.19
SteelTech, Inc.	G400 Cordwood	180,409	9	14.2	0.23
Wood Boiler, LLC	E4 Cordwood	77,308	4.5	10.2	0.25
Heatmor, Inc.	400-4S Cordwood	160,599	10.1	14	0.28
Earth Manufacturing, LLC	Klear Sky 400 Cordwood	45,786	2.4	5.1	0.29

Manufacturer	Model & Fuel Type	8-hr. heat Output Rating* (BTU/hr)	Average Emission Rate (grams/hr)	Maximum Emission Rate (grams/hr)	Average Emission Rate (lbs/mmBTU heat output)
Hardy Manufacturing	KB 125 Cordwood	60,261	4.09	7.96	0.3
Heatmor, Inc.	200X Cordwood	54,019	8.1	14.5	0.3
Piney Manufacturing (Portage & Main)	Optimizer 350 Cordwood	160,421	7.3	10.5	0.3
Central Boiler, Inc.	Classic Edge 550 Cordwood	81,168	5.2	7.7	0.31
Hardy Manufacturing	KB165 Cordwood	73,753	3.9	5.4	0.31
Heatmor , Inc.	350X Cordwood	89,753	9.2	16.9	0.31
Pro-Fab Industries	Empyre Elite XT 200 Cordwood	64,047	6	16.4	0.31

* Average output when burning a load of wood over 8 hrs. Maximum outputs may be considerably higher.

** Must be installed with a properly sized buffer tank as described in the owner's manual.

NOTE: All of the OWBs listed above meet the definition of "Outdoor Wood-Fired Boiler" in Vermont's regulations because the manufacturer has indicated they should or may be installed outdoors or in uninhabited structures. However, some of the listed boilers (the Econoburn, Maine Energy Systems, and Garn models) are primarily sold for installation inside residences or other climate controlled structures.

Choosing an OWB: All the Phase II OWBs are far more efficient and less polluting than the uncertified OWB models. Although some of the efficiency based test results are questionable, the grams per hour emission rates listed above should be correct. For comparison, the US EPA standard for indoor wood stoves is 4.5 g/hr. The emissions from most recently designed indoor woodstoves are approximately half the level of the wood stove standards during tests. The grams/hr emissions from most of the Phase II OWBs approach or exceed the woodstove standards during laboratory testing, even though they produce at least twice to several times the heat output (in BTUs).