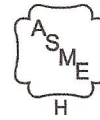




# Ratings — ECO boilers

**Figure 122** Ratings and engineering data — **ECO 70/110/155**



Boiler Model ECO	CSA Output / DOE Heating capacity	CSA Input	Net AHRI water rating	DOE Seasonal Efficiency	Boiler Water Content	Vent/ Comb. Air Connection Diameter	% Input derate vs vent length (Values shown are at MAX vent/air pipe length — See Note 6) Direct Vent Venting ONLY				Shipping Weight	Operating Weight
	Btuh (Note 2)	Btuh (Note 5)	Btuh (Note 3)	AFUE, % (Note 1)	Gallons	Inches (Note 4)	Natural gas		Propane		Pounds	Pounds
							2" Vent/air piping	3" Vent/air piping	2" Vent/air piping	3" Vent/air piping		
<b>70</b>	65,000	70,000	57	95.2	2.54	3" PVC	12 %	5 %	12 %	5 %	117	110
<b>110</b>	101,000	110,000	88	95.0	2.54	3" PVC	15 %	5 %	15 %	5 %	117	110
<b>155</b>	143,000	155,000	124	95.1	3.22	3" PVC	N/A	5 %	N/A	5 %	130	125



**Notes**

- As an Energy Star Partner, Weil-McLain has determined that ECO boilers meet the Energy Star guidelines for energy efficiency.  
NOTE: Adjusting boiler firing rate will affect AFUE rating.
- Based on standard test procedures prescribed by the United States Department of Energy. Ratings also referred to as CSA Output.  
NOTE that only DOE Heating Capacity and AFUE are certified by AHRI. AFUE is also known as Annual Fuel Utilization Efficiency or Seasonal Efficiency.
- Net AHRI ratings are based on net installed radiation of sufficient quantity for the requirements of the building and nothing need be added for normal piping and pickup. Ratings are based on a piping and pickup allowance of 1.15. An additional allowance should be made for unusual piping and pickup loads.
- ECO boilers must be direct-vented. ECO boilers require special venting, consistent with Category IV boiler. Use only the vent materials and methods specified in this manual.  
ECO 70 or 110 vent/air pipes can be either 2" or 3"  
ECO 155 vent/air pipes must be 3"
- All vent and air pipe elbows must be sweep elbows, NOT short-radius elbows.
- Ratings shown are for sea level applications only. For altitudes from sea level to 5,500 feet above sea level, the ECO boiler requires no modifications and automatically derates itself by approximately 4% per 1000 feet above sea level.
- All of the boilers will automatically de-rate as vent/air pipe length increases, due to the pressure loss through the piping. For vent/air pipe lengths less than the maximum, the derate equals the value above times vent length ÷ 100.

**THE OUTDOOR SENSOR SUPPLIED WITH THE BOILER MUST BE INSTALLED UNLESS EXEMPTED BELOW:**

**IMPORTANT**

In accordance with **Section 303 of the 2007 Energy Act**, this boiler is equipped with a feature that saves energy by reducing the boiler water temperature as the heating load decreases. This feature is equipped with an override which is provided primarily to permit the use of an external energy management system that serves the same function.

**THIS OVERRIDE MUST NOT BE USED UNLESS AT LEAST ONE OF THE FOLLOWING CONDITIONS IS TRUE:**

- An external energy management system is installed that reduces the boiler water temperature as the heating load decreases.
- This boiler is not used for any space heating.
- This boiler is part of a modular or multiple boiler system having a total input of 300,000 BTU/hr or greater.
- This boiler is equipped with a tankless coil (not applicable to ECO).