Outdoor Wood Furnaces

Hearth, Patio & Barbecue Association

Important Information on an Increasingly Popular Heating Source

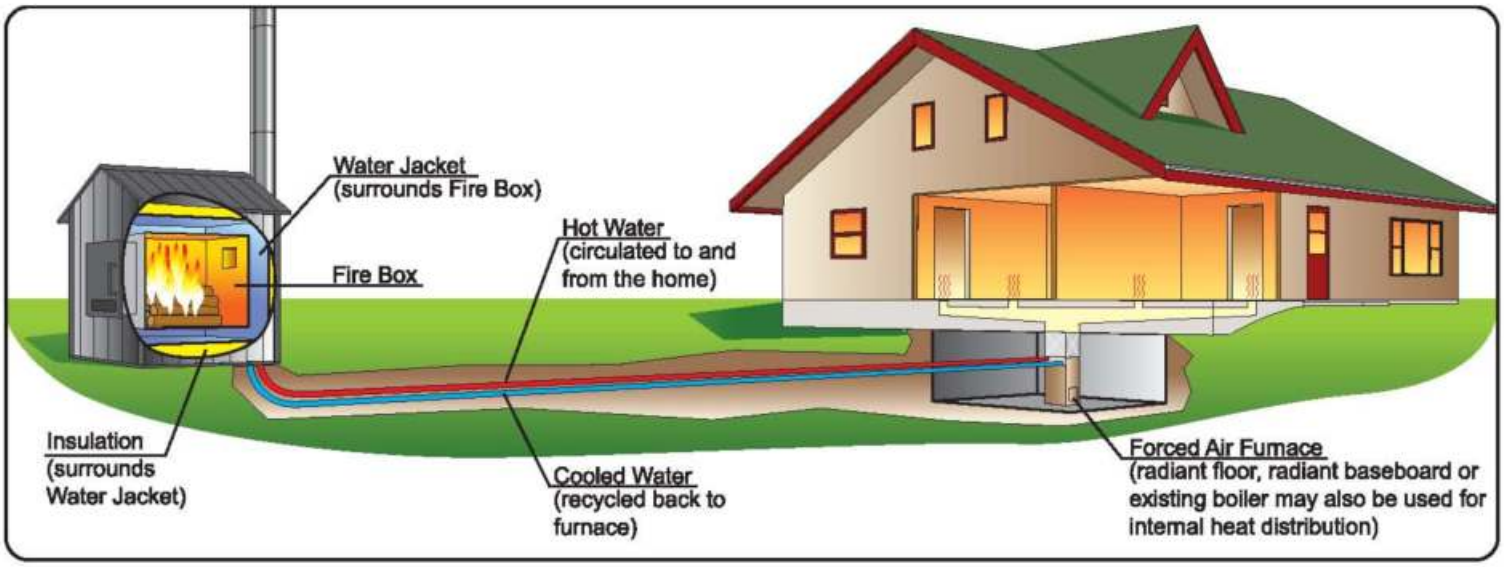
In today's era of skyrocketing energy costs, many families have been forced to seek innovative means of staying warm. A growing number are turning to a safe, affordable and renewable option for heating – *Outdoor Wood Furnaces.*

Outdoor wood furnaces are freestanding units that provide heat and hot water to one or more nearby buildings. These units heat water by burning wood. The hot water is then circulated to and from the home through underground, insulated piping. Once inside the home, the heated water circulates through heat exchangers, radiant floor tubing, or radiators to warm the home. Users control the indoor temperature with a thermostat.

The Benefits of Outdoor Wood Furnaces

Outdoor wood furnaces offer users tremendous benefits compared to other heating appliances. These units provide:

- **Affordability** – Most owners live in rural areas and have access to supplies of either free or low-cost wood.
- **Renewable Energy** – Unlike fossil fuels, wood is a renewable, biomass resource. Burning wood is carbon neutral, meaning there is no net increase in greenhouse gas emissions.
- **Safety** – Units are located outside, reducing the risk associated with combustion inside the home.
- **Convenience** – Depending on the size of the unit, most outdoor wood furnaces need to be loaded only once or twice a day. Heat output is regulated by a thermostat, ensuring comfort and warmth throughout the entire house. Plus, users never need to bring firewood inside.



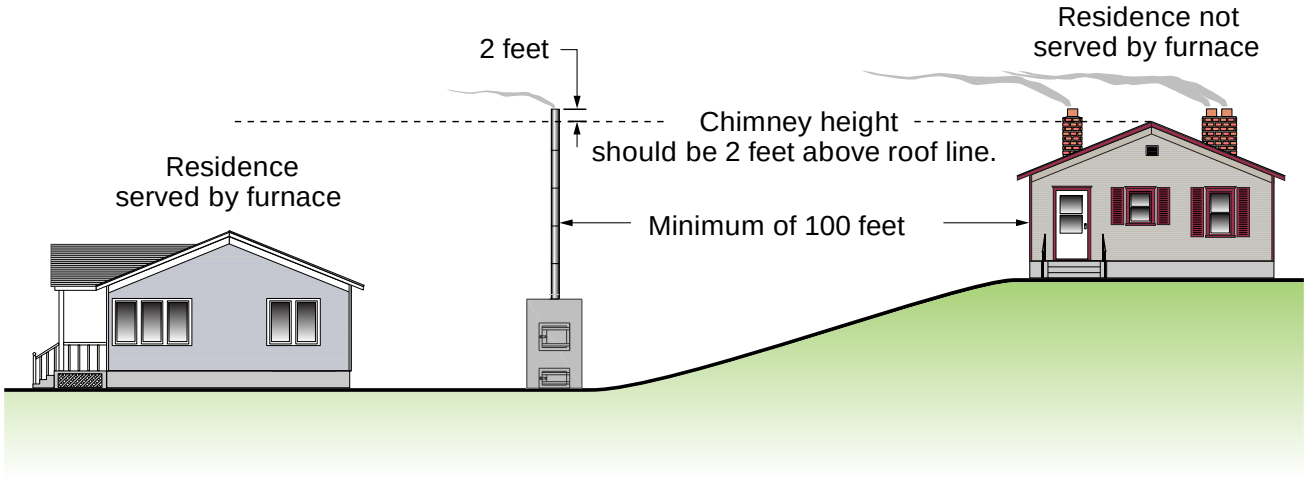
Growing Popularity, Continued Industry Commitment

Due in part to the growing popularity of wood heating, some city and state officials are focusing greater scrutiny on outdoor wood furnaces. In response, manufacturers of outdoor wood furnaces are taking a number of proactive steps. These efforts include:

1. Supporting Proper Installation Requirements

Outdoor wood furnaces were first popularized in agricultural communities and still require sufficient land and chimney height to operate properly. The manufacturers and distributors of outdoor wood furnaces support reasonable siting requirements designed to ensure newly purchased units are properly located and installed with adequate chimney heights.

In general, manufacturers recommend locating outdoor wood furnaces at least 100 feet away from the nearest residential building not served by the unit, taking into consideration the prevailing wind direction. If the unit is located within 100 feet to 300 feet of any residence not served by the furnace, the smoke stack should be at least 2 feet higher than the peak of that residence.



2. Establishing a Uniform Emissions Testing Procedure

The U.S. Environmental Protection Agency (EPA) tested outdoor wood furnaces and concluded that, "[c]ompared to a wide range of residential heating options, these furnaces' emissions were of the same order as other stick wood burning appliances."[1]

However, there are no uniform testing procedures for measuring the emissions and efficiency of outdoor wood furnaces. To fill this gap and quantify emission levels from outdoor wood furnaces, manufacturers have been collaborating with federal and state air quality agencies for nearly two years to develop a universally accepted testing protocol. This coalition is working through ASTM International to establish a procedure that will help interested stakeholders identify and the industry develop cleaner burning furnaces.

[1]"Emissions from outdoor wood-burning residential hot water furnaces." EPA-600/R-98-017, page ii, Feb. 1998.

3. Educating Consumers about Best Burn Practices

Users are ultimately accountable for responsibly operating their outdoor wood furnace. Manufacturers and dealers provide detailed, written instructions on how to properly fuel and maintain an outdoor furnace.

Only those fuels recommended by the manufacturer – such as seasoned, untreated wood – should be burned in the unit. Furnace operators should not use starters (such as lighter fluids, gasoline or chemicals) and should never burn garbage, plastics, rubber, wood treated with petroleum products (such as particle board, railroad ties and pressure treated wood), leaves, paper products or cardboard. For a more efficient burn, users should follow the manufacturer's recommended loading times and amounts.

4. Investing in New Technology

Manufacturers are investing in research and development of next-generation outdoor furnaces with improved efficiency and emissions performance. The EPA, state officials and industry leaders are exploring options for setting guidelines to identify cleaner burning furnaces.

Summary

Outdoor wood furnaces provide a safe, convenient way for families to reduce heating costs while using a renewable source of energy. While manufacturers are investing heavily in the development of even cleaner, more efficient units, the industry is also educating consumers on how to operate their furnaces properly and supports well-crafted permitting and installation requirements.

About HPBA

HPBA's Outdoor Wood Furnace Caucus brings together leading manufacturers of these products. This group is dedicated to developing safe, affordable and convenient ways to provide heat in the most environmentally responsible manner.

For more information, contact Frank Moore, Caucus Chairman at 800-542-7395.