



HOW TO CHOOSE YOUR WOOD STOVE

It can be difficult to choose a wood stove with the mass of technical information that's available. The two graphs on the next page summarize the most important information to help you select the Drolet stove that matches your expectations.

Vertical scale (number of BTUs/hr)

One of the most important factors to consider when buying your wood stove is the number of BTUs required to heat your residence. And that number depends to a great extent on the total area of the space to be heated. To find the number of BTUs required for your residence, first determine the total area of the floor on which the stove will be installed and add half the area of the upper floor (if applicable), if you want to heat that floor as well. Example: 25 ft. x 32 ft. residence with basement, main floor and second floor. If the stove is put on the main floor, the total number of square feet to be heated will be: $(25' \times 32') + 1/2 \text{ of } (25' \times 32') = 800 + 400 = 1,200$ square feet. Then, the number of required BTUs is obtained by multiplying the total area by 17.5 for a house built within the past 25 years or by 35 for a house that is more than 25 years old. In our example, if the house has been built recently, we multiply 1,200 by 17.5, which gives 21,000 BTU. These figures are approximate because each residence has its own specific features. We also assume that the stove is used for auxiliary heating rather than for central heating, which means the temperature is not maintained in uniform fashion throughout the residence.

Horizontal scale (time in hours)

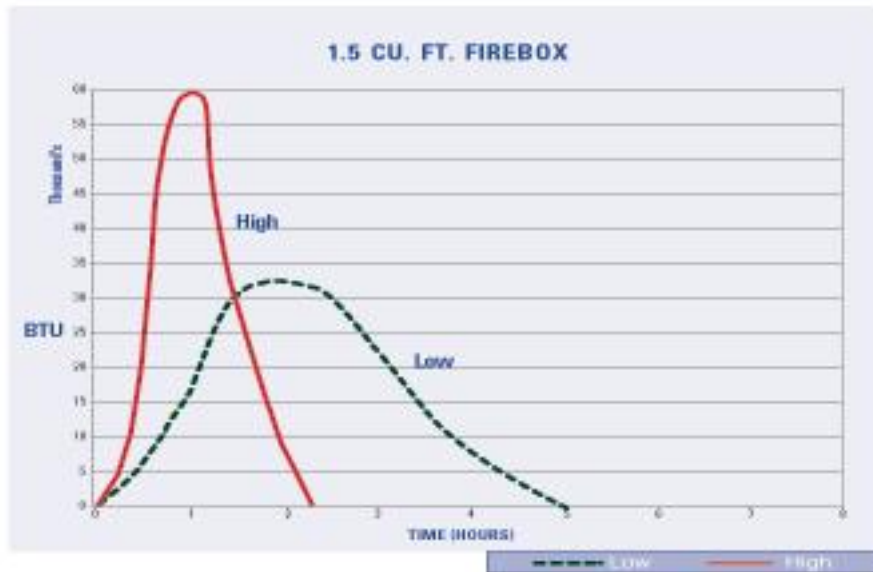
Another factor to consider is the amount of time (in hours) that you want to pass between each load of wood without having to re start the fire completely. This means a bed of embers must always be present. You must therefore add a load when the curve gets almost to its lowest point on the graphs. But you may not want your stove to be lit all the time. If so, you can let the fire go out by itself and start it the next day or even wait until the weekend.

Combustion air

Simply put, the amount of BTUs developed by a wood fire depends on the wood's combustion rate, which in turn depends above all on the amount of combustion air that is supplied to the unit through the main air vent. A minimal amount of combustion air will generate fewer BTUs. In other words, the smaller the amount of combustion air, the slower the wood will burn. It's just a matter of finding the right balance between the desired number of BTUs and the desired combustion time.

Firebox size

Combustion time in a wood stove depends, among other things, on the size of the firebox. In general, the larger the firebox, the longer the combustion time.



The right choice

The above graphs show that the maximum number of BTUs developed and the combustion time both depend on the amount of air that gets to the fire. The combustion time also depend on the firebox size. When the main air vent is completely open (high, continuous redline), the stove develops maximum BTU output, whereas when it is almost entirely closed (low, dotted green line), the fire will burn the maximum amount of time.

Positioning the vent control at medium-low usually represents the happy medium, that is, the right balance between combustion time and BTUs/hr. Depending on your specific situation, you should choose a stove that will maintain an adequate BTU level in relation to the time you want to pass between loads.