



Hot Concepts

829 Father Capodanno Blvd
Staten Island NY 10305
Hotconcepts@verizon.net
718 979-8300

Fuel Type Overview:

Choosing a burning Hearth Product may be a difficult decision. A critical decision that you need to make when purchasing a hearth product is: **The type of FUEL your hearth appliance will burn and consume.** This section of our site will help to make the Fuel Type decision that is right for you.

There are five major factors that must be considered when comparing fuel types:
Cost, Availability, Convenience, Efficiency, and Reliability.

What are the Pros and Cons of each Fuel Type?

Gas Direct Vent
Gas Vent Free
Gas Logs - Vented

Wood
Pellet
Electric (Vent Free)

Click for Fuel Efficiency Calculator
<http://napoleonfireplaces.com/Tech/FuelCost.html>

Gas Direct Vent

Pros

Cleaner than wood or pellet
Easy to use - operated with a flip of a switch or remote control
Can be automated by a thermostat or timer
Can be installed almost anywhere is the home-very versatile installation options
Energy efficient & great for zone heating to reduce heating bills
Air-tight combustion chamber to maintain indoor air quality
Air needed for combustion comes from outside
Performance not affected by tight homes or negative house pressure
Easily incorporated into any room design to complement or enhance the decor

Cons

Cannot re-create the smell or sound of a wood fireplace (but there are things you can buy to replicate the sound and the smell)
Cannot access the firebox to tend the fire

Gas Vent Free (a.k.a. Un-vented) Short Video about Gas Burning

Pros

Less involved installation
Easy to use - operated with a flip of a switch or remote control
Can be automated by a thermostat or timer
Very efficient, all heat stays in room

Cons

Can create a slight odor when in use.
Room must be a certain size to accommodate
A natural gas, room-vented appliance emits about a gallon of water every 2-3 hours
Not approved in some states and municipalities
Cannot be installed in bedrooms and basements

Gas Logs-Vented

Pros

Less expensive than a direct vent gas insert solution
Big beautiful yellow flames
Instant open-burning fire
Less involved installation
Costs pennies an hour to operate

Cons

Limited heating capacity
May not work properly in negative pressure environments (new tight homes)
May not qualify for every fireplace
Usually very high BTU/hr input-will cost more to operate than direct vent
Will not fix a poor-drafting wood fireplace-will actually cause more problems
Can be temperamental due to being natural draft appliances
Can be temperamental due to overheating of electronics, valves, and other controls
May actually pull more heat out of the room than it adds to it-negative efficiency?

1. **Cost** - Burning fuel that is converted to energy costs money. The local and global marketplace continues to change which will affect how much you will have to pay for the supply and delivery of your fuel. However when determining your TRUE COST, you must also consider the fuel's indirect costs: time/effort required to operate, the potential aggravation and annoyances (or lack thereof), and the cost of the initial investment.

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1. **Availability** - The long-term availability and the quality of fuel varies by geographical regions. For instance, availability of electric, natural gas, and liquid propane are readily available today in our area and the quality of these fuels, remain consistently very good. However, wood and wood pellet fuels require additional work on your part to source, and may be difficult to predict the consistent quality from year to year.
2. **Convenience** - For the enjoyable use of your hearth appliance, your fuel choice must best match your lifestyle. When thinking of how much ease-of-use operation means to you, you must think about the time it takes to source, handle, and store your fuel. Additionally how much time and effort would you like to take to operate, clean, and maintain your fuel-specific hearth product?
3. **Efficiency** - Efficiency measures how much of the potential energy of the fuel used is released as heat-energy into the home. When heating value is high on your list of goals for your hearth product, you must analyze the actual operating efficiency of a product/fuel type to get a clear picture of how much you will benefit from money that you spend on the fuel usage.
4. **Reliability** - When adding a hearth appliance to serve as back-up heat source or as a primary heat source in a section of your home, reliability is important. You must consider: Will this product work in a power outage? What would cause the hearth appliance to fail or operate less efficiently? Based on the fuel type you select and the hearth appliance the answers to these questions will vary.