



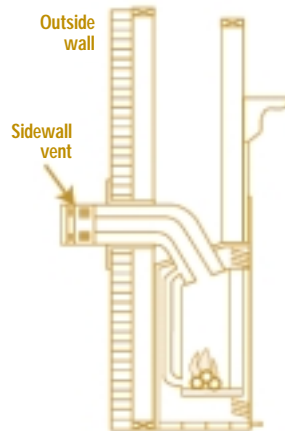
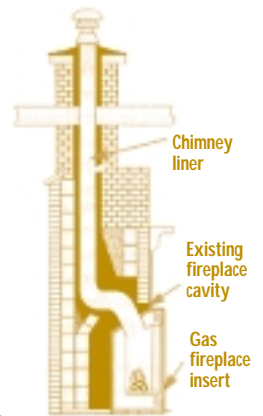
# Cosy Up in Comfort With a Vented Gas Fireplace

## Make the Right Choices

**W**hen choosing a gas fireplace, make sure that the unit you purchase can be vented to the outdoors. This is especially important in Canadian homes because units that are not vented to the outdoors can pose serious health hazards by emitting increased levels of nitrogen oxides, carbon dioxide, carbon monoxide and large amounts of water vapour.

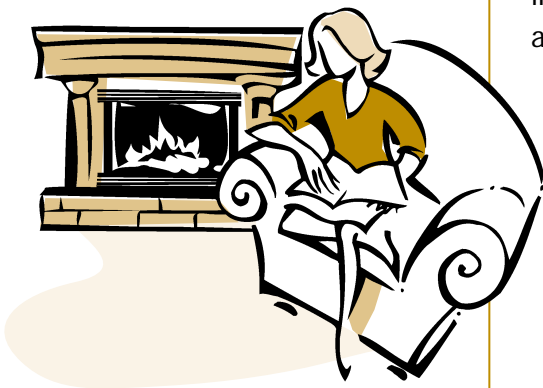
The three main types of gas fireplaces are as follows:

- Fireplace inserts are used to convert wood-burning masonry fireplaces or factory-built metal fireplaces to more efficient gas ones. With an insert, the existing chimney must be re-lined with an approved vent.



- Factory-built (zero-clearance) units are installed where there is no existing fireplace, typically during home construction or renovation. These fireplaces can be installed against walls.

- Free-standing gas fireplaces resemble some wood-burning stoves and can replace them when installed as a direct-vented appliance. Because all surfaces are exposed, these fireplaces tend to be more effective in supplying heat into a home.



All of these units feature simulated logs and a gas burner inside a firebox and ceramic or tempered glass fronts that allow you to view the flame. Ceramic glass is slightly better at transmitting infrared heat into the room and can better withstand the higher temperatures associated with sealed units.

Vented gas logs are a less expensive but problematic option. These non-combustible artificial logs, mounted over gas burners, are installed directly in an existing wood fireplace. Gas logs are very inefficient and pose a number of problems, including combustion gas spillage into the home. They are not recommended for well-insulated, draft-free homes in Canada.

## Three Venting Options for Your New Gas Fireplace

Your choice of venting options – natural draft, power venting or direct venting – can affect the efficiency of your new gas fireplace. Improving energy efficiency reduces the greenhouse gas emissions that contribute to climate change.

Natural draft venting is typically used with an existing vertical chimney and requires an approved metal liner. This system takes advantage of the natural draft caused by the temperature of the flame.

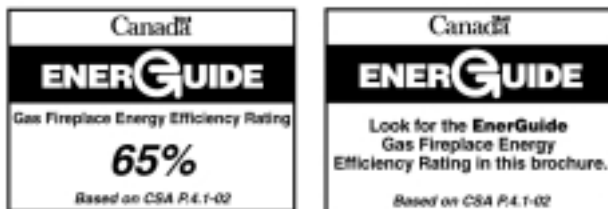
Power venting will improve your fireplace's efficiency and use less house air. Venting is through either a horizontal or vertical flue, assisted by an electric fan. A gas fireplace with power venting can be located in a home where a conventional flue cannot be installed.

In most cases, direct venting (abbreviated as DV in product literature) is the most efficient. Direct-vent units are sealed; outside air is brought directly into the firebox. No house air is required for combustion, and no heat is lost from the inside to the outside. Direct-vent units can be installed on an outside wall with the vent running through the wall. Some models are approved for extended horizontal or vertical flue lines.



## Not All Gas Fireplaces Are Created Equal

In the fall of 2003, Canada introduced a new EnerGuide rating label to help consumers identify the energy efficiency of gas fireplaces. This new rating is based on products tested by the Canadian Standards Association's CSA P.4.1-02 performance test method for vented gas fireplaces. A good energy-efficient model should have an EnerGuide Fireplace Efficiency (FE) rating of between 50 and 70 percent. Look for the FE on the EnerGuide rating and label in product brochures or on the manufacturer's Web site.



## Energy-efficient Features

- a direct-vent design
- an intermittent or automatic electronic ignition system; a pilot light that can easily be shut off and re-lit; or a pilot light with an ultra-low firing rate
- a ceramic glass front
- a "squirrel cage" type of circulating fan
- a secondary heat exchanger

- an insulated outer casing to prevent heat loss (except for free-standing units)
- adequate turn-down controls or ducting to prevent local overheating

## Thermostat Control

Most gas fireplaces allow you to adjust the temperature by regulating the rate of gas consumption, to as low as 20 percent in some models. For good energy efficiency and comfort, be sure to install a gas fireplace that is not too large for your needs. Look for models that have wide turn-down ranges and a high EnerGuide FE rating. Many fireplaces also have an automatic thermostat control to keep the room at just the right temperature.

Choosing the right ignition system for your gas fireplace can play a considerable part in helping you to conserve energy. A pilot light, which is used to ignite the main burner when the fireplace is turned on, can consume as much as half the gas your fireplace uses. Make the smart choice and choose a fireplace that has an automatic starter or electronic intermittent ignition. An alternative is to choose a unit in which the pilot light can be shut down when not in use, especially during summer months, and easily re-lit when required.

## Switch On Comfort!

- A gas fireplace gives your home a comfortable, warm ambiance without the mess of traditional wood-burning fireplaces.
- With the right fireplace, you can control the amount of gas you consume while keeping your home warm and cosy.
- When properly maintained, a gas fireplace operates very efficiently and can offer you years of worry-free enjoyment.

It is important to find the best location for your new fireplace. Most fireplaces are installed on the main floor, in rooms where the family spends the most time.

The layout of your house will affect how efficiently the gas fireplace provides heat to other rooms. An open design allows heat to move throughout your home. If your fireplace must be on an outside wall, try to build it inside the house envelope.

## Need More Information?

Visit our Web site at  
[oee.nrcan.gc.ca/equipment](http://oee.nrcan.gc.ca/equipment).

For information about the energy, economic and environmental benefits of vented gas fireplaces, consult Natural Resources Canada's Office of Energy Efficiency's publication *All About Gas Fireplaces*. You can view it on-line at [oee.nrcan.gc.ca/publications](http://oee.nrcan.gc.ca/publications) or order your free copy by calling 1 800 387-2000 (995-2943 in the National Capital Region) or by writing to

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