

# FREQUENTLY ASKED QUESTIONS

## GENERAL QUESTIONS <<

### >> **What is a “vent-free” gas heating product?**

Vent-free gas heaters, fireplaces, fireplace inserts, stoves and log sets are heating appliances designed to be installed and operated without a chimney, flu or vent. Vent-free products can be used with either natural gas or propane, and are intended to provide supplemental heat to a home. Because there is no vent, flue or chimney required, all of the heat generated by the product goes directly into the home. That’s why vent-free products are 99.9 percent energy efficient.

### >> **What are the benefits of vent-free heating products?**

Vent-free gas heaters, fireplaces, stoves and log sets offer homeowners a safe and energy-efficient way to add heat to their homes. Vent-free gas appliances use precision burners and are design-certified by national testing laboratories to meet the latest national health and safety standards and guidelines.

### >> **What are some of the technological advances of today’s vent-free appliances?**

Many designs are available with hand-held or wall-mounted remote controls for lighting the unit and selecting the heat output. Most designs offer thermostatically controlled models that automatically modulate to maintain the selected comfort level/heat output.

Some models offer a timer device which automatically starts the appliance before the family rises in the morning or returns home in the afternoon.

### >> **How many vent-free products are in use today?**

More than 17 million U.S. households use vent-free gas supplemental heating appliances. Vent-free products are fueled by natural gas or propane and their precision-engineered burners provide highly efficient, environmentally clean-burning heat.

### >> **Aren’t there limited sizes and shapes for vent-free products?**

Vent-free products come in every size, shape and color. Every year manufacturers introduce new colors and styles of vent-free products. Selecting a vent-free appliance is easy. It is recommended that you work with your local gas appliance or hearth retailer to find the best product to meet your needs.

### >> **How is a vent-free appliance different than vented products?**

All vented gas and solid-fuel fireplaces lose some or most of their useable heat straight up the chimney or vent.

For example, vented gas logs installed in a wood burning fireplace typically burn 30,000 to 60,000 Btus/hour, and the fireplace damper must be totally open, resulting in most of the heat escaping up the chimney. Depending on the design chosen, a vent-free gas log in the same fireplace would burn only 26,000 to 40,000 Btus/hour, and virtually all of the heat produced would be delivered into the living space. Therefore, the savings in fuel costs with a vent-free gas log are tremendous, and the resulting comfort from the fireplace is dramatically increased versus a vented appliance or burning wood.

### >> **Can vent-free products be used as a home’s sole heating source?**

Vent-free gas appliances should be used as supplemental zone heaters and not as a primary source of heat, except during a power outage.



## EFFICIENCY <<

### >> **What are the most fuel efficient gas heating products on the market today?**

Vent-free appliances are the most fuel-efficient gas heating products on the market today. All vent-free gas appliances are 99.9 percent efficient. Virtually all of the gas or propane burned by the product is converted into room-warming heat.

### >> **Isn't natural gas an expensive fuel option?**

While prices of all fuels have risen in the past several years, natural gas still provides more heat for the dollar than any other home heating fuel. A direct comparison of costs for different fuel types based on 2006 U.S. Department of Energy (DOE) average unit costs of energy follow.

### >> **Doesn't it cost a lot to run a vent-free heater?**

It costs pennies per hour to operate a vent-free gas supplemental heating appliance.

A typical vent-free fireplace consumes 26,000 Btus per hour. Assuming the unit operates at peak operation for one hour based on the DOE's 2006 unit cost of natural gas, it would only cost 36 cents an hour to run the appliance. Operating the appliance for two hours per day for a month and adding the minimal cost of the pilot, the monthly cost would be approximately \$26.64 per month.<sup>1</sup>

Natural gas	\$1.415/therm
No. 2 heating oil	\$1.637/therm
Kerosene	\$2.030/therm
Propane	\$2.135/therm
Electricity	\$2.875/therm

1 therm = 100,000 Btus

Source: U.S. Department of Energy

*Note: Most vent-free units have thermostats that lower the heat when they reach a pre-set temperature, so these appliances DO NOT operate at peak output all of the time. Consequently, the operating cost of a vent-free appliance equipped with a thermostat is even less than the one given in the example above.*

### >> **Can you reduce your heating bill by zone heating?**

Yes. Strategically placing a vent-free gas heater, fireplace, stove or log set in rooms you use most can significantly cut your heating bill. Vent-free appliances put the heat where you want it and when you need it, allowing you to turn down the thermostat on your central furnace. According to the American Gas Association, turning the thermostat back 10 to 15 percent for eight hours per day can cut your heating bill by 10 percent.<sup>2</sup>

### >> **How much do people save using a vent-free product to zone-heat their home?**

Savings vary depending on your home and how you use your heating appliances.

A conservative calculation using DOE average use and cost data for home heating with natural gas shows using the central furnace to supply two-thirds of a home's heat and a vent-free appliance to provide zone heating in primary living areas results in a 12 percent cut in fuel costs.<sup>3</sup> Supplemental vent-free gas heating appliances provide the heat where it is desired and not throughout the whole house. **The greater the use of the vent-free appliance, the greater the savings.**

## SAFETY <<

### >> **Are vent-free products safe?**

Yes. Vent-free gas products are safe provided they are installed and operated in accordance with manufacturer's instructions, which is important for all home appliances. All vent-free gas appliances are permanently installed and have defined distances to combustible surfaces. They also have safety grills for heaters, fire screens and hoods for gas logs and fireplaces.

### >> **What technology is used to help assure the safety of vent-free products?**

Every vent-free heating unit sold in the United States must have a tamper-resistant, precision-engineered oxygen detection safety sensor (ODS), which is equivalent in function and reliability to an electrical circuit

<sup>1</sup> A typical vent-free fireplace consumes 26,000 Btus/100,000 Btus= .26 therms per hour x \$1.415 per therm = \$0.36/hr to operate.

<sup>2</sup> American Gas Association Fact Sheet

<sup>3</sup> Assumptions: Avg. home uses 756.41 therms/yr/avg. NG central heater is 80% efficient, provides 2/3rds the heat/avg. vent-free appliance is 99.9% efficient, provides 1/3 heat



breaker. The ODS automatically shuts off the appliance in the unlikely event that the optimal oxygen level in the vicinity of the unit begins to drop. The ODS shut-off point is defined by a minimum set by the American National Standards Institute (ANSI) Z21.11.2.

Certified vent-free gas appliances also are fitted with an internal, non-adjustable pressure regulator that prevents over-firing in the event of increased gas pressure.

>> **Has the use of vent-free products led to any CO (carbon monoxide) deaths?**

More than 17 million vent-free appliances have been installed in the United States since 1980. These products have a 25-year outstanding safety record.

- In the United States, the Consumer Product Safety Commission (CPSC), which is charged with protecting the public from unreasonable risks of serious injury or death related to home appliances, has stated that it is not aware of any documented incident in the CPSC In-Depth Investigation (IDI) database of fatal carbon monoxide (CO) poisoning associated with an ODS-equipped vent-free gas heating product.
- In the United Kingdom, approximately 15 million ODS-equipped vent-free units have been installed with no reported CO deaths.
- Japan reports that more than 40 million units have the same outstanding safety record.

## INDOOR AIR QUALITY <<\_\_\_\_\_

>> **Do vent-free heating products harm indoor air quality?**

Vent-free heaters, fireplaces, stoves and log sets are proven to meet today's most rigorous air quality standards.

The American Gas Association Research (AGAR) laboratories investigated the impact of emissions from vent-free gas products on the home environment. The researchers took into consideration the climate in the country's five Department of Energy heating regions, various types of housing constructions and different volumes of space to be heated. After running hundreds of thousands of computer-based scenarios, results were confirmed by tests run at the American Gas Association test house facility.

AGAR researchers concluded that "vent-free gas heating products performed well within nationally recognized guidelines for indoor air quality." This research shows that vent-free gas heating products meet applicable emissions requirements, even when used over extended time periods, among sensitive populations and with units whose maximum heat output exceeds the requirements of the space.

>> **Is extra humidity harmful?**

When it's cold enough to use the central heating system, most homes experience a significant drying effect that can be irritating to the nasal passages of residents, and lead to the shrinking of caulk and damage to wood furnishings. To compensate for the level of moisture being extracted from the home during the heating season, many homeowners use humidifiers which provide many health and comfort benefits.

Water vapor is a by-product of gas combustion. Vent-free gas products emit a very moderate level of water vapor and that is a very positive secondary benefit of the appliance. Independent research has proven that for 99 percent of homes in the U.S., the water vapor generated by vent-free gas heating products is below the level that would cause any negative side effects.

>> **Could moisture created by vent-free gas products foster mold growth?**

Studies by Risksciences, LLC, an independent scientific consulting firm, concluded that "for the vast majority of homes in the U.S. (99 percent), vent-free gas heating products DO NOT generate enough water vapor to raise indoor humidity levels high enough to foster mold growth."



## INSTALLATION <<

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### >> **Do the building codes in my area allow for the installation of vent-free gas products?**

All building codes throughout the United States allow for the sale and installation of vent-free gas appliances. In fact, vent-free gas products are allowed in 49 states. However, you should always check with your local retailer and/or code authorities before purchasing and installing a vent-free appliance.

### >> **Are there restrictions on where vent-free appliances can be installed in the home?**

Vent-free appliances may be installed in just about any room of the home as long as there is a gas hook up. It is important to remember that the appliance should be sized to fit the area in which it is to be installed and must meet any additional regional or local requirements (6,000 Btus are allowed in bathrooms and 10,000 Btus are allowed in bedrooms).

### >> **Is installing a vent-free appliance expensive?**

Installation costs of vent-free products are up to 60 percent less than the cost of installing vented heating appliances as there is no need to cut through exterior walls or create an expensive chimney or vent system.

### >> **Are vent-free appliances difficult to install?**

Any of the 62 million homes that are supplied with natural or propane gas can inexpensively have a professional install a vent-free gas heater, fireplace, stove or log set. Installation usually takes less than an hour.

Vent-free products can be installed in just about any room, from hard-to-heat basements and additions, or in rooms used less frequently. Vent-free products can even be installed outside to provide heat for your outdoor living areas.

Unlike vented products, which have limitations on their placement, vent-free products can be put just about anywhere on an inside wall, under a window, in a corner or in the middle of a room -- any area with access to a gas line. Always check with your local codes as there are some restrictions on placement.

### >> **Do all U.S. codes support vent-free gas products?**

U.S. authorities rigorously review appliances and their installation guidelines to determine those that are approved. The eight primary U.S. model building codes all permit the installation of vent-free gas products. No code that has permitted the products has ever been revised to limit their installation.

## MAINTENANCE <<

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### >> **Are vent-free products difficult to maintain?**

Vent-free products do not have chimneys, flues or vents that can get clogged, need repair or cleaning, or provide a conduit for unwelcome pests.

Vent-free appliances, like all gas appliances, should be inspected annually for proper operation by a qualified service agency. This typically consists of a cleaning, checking the burner and inspecting the appliance's other key components and ignition system. Owners should review the product manual prior to operating the unit.

The other main benefit of vent-free gas appliances is that they eliminate the need for chopping and hauling wood or cleaning ash from wood burning in a conventional fireplace.

### >> **Do vent-free products work when the power goes out?**

Yes. Most vent-free appliances don't rely on electricity. They supply heat even when home power is lost due to severe weather or emergency situations.

*The Vent-Free Gas Products Alliance and its website, [www.ventfree.org](http://www.ventfree.org), continue to be a popular source for information on vent-free appliances. The Alliance has long worked closely with codes and standards groups across the country to provide accurate, up-to-date, and complete information on vent-free appliances.*

The Vent-Free Gas Products Alliance is a coalition of members of the Vent-Free Gas Products Division of GAMA - An Association of Appliance and Equipment Manufacturers.



**FOR MORE INFORMATION PLEASE VISIT [WWW.VENTFREE.ORG](http://WWW.VENTFREE.ORG)**