

Hearth Products Fact Sheet

Summary/Principles of Operation

Heating

Gas hearth equipment can warm space in two ways: radiant heat and convection heat. Convection heat warms surfaces as warm air rises and moves through a room. Radiant heating warms objects in its direct path – not the air. The heated objects can also emit radiant heat to cooler materials. Conventional fireplaces, for example, emit radiant heat, while central "forced-air" furnaces use convection heating.

Natural gas hearth products can be classified as decorative – for appearance, although they do provide radiant heat – or as wall heaters or space heaters. These hearth products have added technology, such as a heat exchanger and blower fan to heat and move air through the space.

Venting

As with all natural gas equipment, the gas burner in hearth products produces some combustion byproducts, primarily water vapor and carbon dioxide. As a result, venting may be required with gas fireplace equipment. There are two types of venting: direct vent or natural vent. Other, very high-efficiency equipment may not require outside venting.

With products that require venting, there are many possibilities. If gas equipment is being installed in an existing fireplace, the chimney that's already there to vent combustion byproducts can be used. If a new self-contained gas fireplace is chosen, it can be vented through the roof, using a traditional chimney or metal vent pipe, or it can be vented directly through a side wall to the outdoors. These direct vent fireplaces offer many options for installing the equipment in corners, against walls, under windows, or in between rooms.

Un-vented or vent-free hearth products are widely available. They discharge vent gases within the space they are located. Un-vented products are to be used largely for aesthetics and used only for brief periods of operation, not for long periods of winter heating. These products usually have an Oxygen Depletion Pilot that extinguishes the unit if the oxygen in the room is seriously depleted. Un-vented products have many benefits – they warm up cool air during periods of occupancy, contribute humidity to dry indoor air during the heating season, and can be used as a back-up during heating system power failures.

Controls

A variety of controls are available for natural gas fireplace equipment. Most use a simple, continuously burning pilot light to ignite the flames. To start a fire, a valve is turned, a switch is flipped, or a remote control is used. Spark ignitions are also available that require no electricity, electronic ignitions, and units controlled by a thermostat. Some gas fireplace equipment has several temperature levels so comfort can be fine-tuned.

Energy Use

Most vented gas log sets and fireplaces are in the 20,000 to 60,000 Btu/hour range. Un-vented products have an upper limit of 40,000 Btu/hour.

Types of Hearth Products

Gas Logs

Inexpensive and easy to install, a gas log set fits into an existing fireplace and uses the flue for exhaust. If glass doors are used, they must be open while appliance is in operation. Gas logs do not provide much heat. Typically, most models turn on and off with a knob and can still be used in case of an electrical outage. Models with electronic power switches or remote control are more expensive and will not work during a power outage. Overall, gas logs are usually the least expensive natural gas hearth product.

Gas Fireplace Insert

Complete unit fits into existing fireplace and includes gas logs. They may be conventionally vented, mechanically vented, or direct-vented and provide radiant heat; they may provide some convective heat.

Gas Fireplace

Gas fireplaces are complete, prefabricated units that come in a wide variety of sizes and styles, including see-through, three-sided, and traditional fireplace configurations. The size of the firebox – the interior where the fire burns – varies from 32 to 45 inches in width. The fireplace can be placed along inside or outside walls, under windows, as a peninsula between rooms, in bookcases and media centers, in corners or wherever else business owners would like a fireplace. These units can be vented through the roof or through a side wall, or can be un-vented. Some models use a fan or blower to help move the combustion byproducts outdoors or to circulate warm air from the fire into the room. Because no masonry work is needed, natural gas fireplaces are economical to install.

Fireplaces can be decorative or classified as space heaters.

Gas Stoves

Natural gas stoves were designed for those who use wood stoves as their major source of heat or simply like the look of wood stoves. Natural gas stoves come in a variety of styles, sizes and options. Most models have a fire-viewing area and some come with multi-sided views. Similar to other gas hearth products, the on/off controls come with simple knobs, electronic remote controls, or thermostats. Other models allow you to adjust the height and intensity of the flame. Most hearth products need clearances of only one to three inches on sides and back.

Costs

The following are price ranges for each of the different types of hearth products¹:

Logs – range from \$470 to over \$780, the most commonly sold size is 24 inches, costing between \$640 and \$780.

Insert – installed, these products cost between \$1,500 and \$3,500 depending on the size and style. The install price does not include labor for the gas connection.

Fireplace – installed, these products cost between \$1,200 and \$5,500 depending on size and style. The install price does not include labor for the gas connection.

Stove – installed, these products cost between \$1,500 and \$3,500. The install price does not include labor for the gas connection.

Strengths/Opportunities

- Natural gas fireplaces, stoves, fireplace inserts, and gas log sets burn more cleanly than wood fireplaces with no ash build-up, no creosote in chimneys, and no sparks or flying embers that could burn holes in carpets or furniture.
- There is no messy wood to collect or ashes to clean up.
- Fires are smoke-free.
- They provide ambiance and warmth.
- Quick - no building a fire, just flip a switch.
- A variety of products is offered – can be flexible in venting and location.
- No wood storage is necessary.
- There is a wide range of prices and options.
- Many models can be used in case of an electrical outage.

Weaknesses/Barriers

- Piping installation.

Markets

- Residential
- Hotels/motels
- Restaurants
- Some recreational sports facilities (ski lodges)

Competition

- Traditional wood-burning fireplaces
- Electric fireplaces

Manufacturers

Connecticut Appliance and Fireplace Distributors
50 Graham Place

¹ Discussion with sales representatives from Connecticut Appliance and Fireplace Dealers and Fireplaces & Stoves by Superior

Southington, CT 06489
p: (860) 621-9313 f: (860) 621-2151
email: sales@cafd.com
<http://www.cafd.com/flashindex.html>

ECS, Inc.
918 Freeburg Avenue
Belleville, IL 62222-0529
p: (618) 233-7420 or (800) 851-3153
f: (618) 233-7097 or (800) 443-8648
email: info@empirecomfort.com
<http://www.empirecomfort.com/>

Stoves Unlimited
(888) 470-7011
<http://www.stovesunlimited.com/Stoves/Home.asp>

Hearthside Fireplace, Patio and Barbeque Center
(888) 545-9322
www.hearthsidedistributors.com

HearthStone
<http://www.hearthstonestoves.com/>

Enter zip code here to find local dealers:
<http://www.hearthstonestoves.com/Dealers/index.cfm>

Heat-n-Glo
www.heatnglo.com

Fireplaces & Stoves by Superior
1457 Meriden Waterbury Road
Milldale, CT 06467
p: (860) 620-5555 f: (888) 966-3427
www.hearthtech.com/heatnglo/fireplacesstovesbysuperior

Papas Hearth & Home
249-251 West Main Street / Bldg 1U
Branford, CT 06405
(203) 483-9461
www.papashearth.com

Novicky, Inc.
75 Grays Bridge Road

Brookfield, CT 06804
(203) 775-2367

Fireside Supply Inc.
33 A East Street
Hebron, CT 06248
(860) 228-1383
www.hearthtech.com/heatnglo/firesidesupplyinc

@ Home Design Center
25-45 Old Kings Highway North
Darien, CT 06820
(203) 655-4600

Heatmaster, Inc.
3625 Benson Road
PO Box 1717
Angier, North Carolina 27501
p: (919) 639-4568 f: (919) 639-0101
www.heatmaster.com

Jotul North America
<http://jotulflame.com/jotulgas.html>

The Trading Post
314 Kent Road
New Milford, CT 06776
(860) 354-3276
email: tpostnmct@aol.com

Lennox
<http://www.lennoxhearthproducts.com/>

Deans Stove & Spa Inc.
120 West Main Street
Plantsville, CT 06479
p: (860) 621-5511 f: (860) 276-1998
email: sales@deansstove.com
<http://www.deansstove.com>

R.H. Peterson
14742 East Proctor Avenue
City of Industry, CA 91746
(800) 332-0240
www.rhpeterson.com

Valor

Click link to find local reps: <http://www.valorfireplaces.com/>

A large portion of this document was taken from the AGA's *Buyer's Guide – Natural Gas Hearth Products*.