

MAXIMUM BTU INPUT

The maximum Btu input of any of our rings is determined by the hub size- all rings except the 48" have a 1/2" hub; the 48" fire ring has the 3/4" hub. Here are the maximum Btu ratings for each:

	<u>Natural Gas (1/4 PSI or 4" W/C)</u>	<u>LP Gas (1/2 PSI or 14" W/C)</u>
1/2" Hub (6" ~ 36" Ring)	650,000 Btu	1,690,000 Btu
3/4" Hub (48" Ring)	1,150,000 Btu	2,999,000 Btu

In all reality, it is practically impossible to reach these maximums. The capacity will be reduced by **several factors in the fuel supply system** such as: Capacity of incoming system to meter, capacity of valve, line pressure, size of pipe, length of run, number of turns, LP orifice / air mixer, and altitude.

It is always best to consult your plumber to ensure you have adequate supply.

Fire Pits, Fire Rings and Complete Fire Pits are for outdoor use only.

Clearance From Combustibles

These products create very high temperatures, so it is very important that combustibles are kept at a safe distance. Wooden surfaces must be located far enough away that they do not reach a temperature of more than 100°F plus ambient air temperature (example: if surrounding air temperature is 70° F surface temperature must stay at or below 170°F.)

	Fire Ring <u>only</u>	Fire Ring <u>with pan</u>	Pit Kit <u>only</u>	Pit Kit <u>with pan</u>	Complete Fire Pit <u>with valve box</u>
<u>Under</u>	8"	6"	8"	6"	6"
<u>Sides</u>	10"	10"	10"	10"	10"
<u>Over</u>	72"	72"	72"	72"	72"

Preparation of Pit for Installation

****PLEASE READ INSTRUCTIONS THOROUGHLY FOR SAFETY WARNINGS & WARRANTY REQUIREMENTS PRIOR TO CONSTRUCTION OF ENCLOSURE****

We recommend that our products be installed and serviced by professionals who are certified in the U.S. by NFI (National Fireplace Institute) or in Canada by WETT (Wood Energy Technical Training). Installer must follow all instructions carefully to ensure proper performance and safety. To assure stability, prevent leaks, and assure proper ignition; to the following instructions one must adhere.



**NATIONAL
FIREPLACE
INSTITUTE**
A Certification Agency

- 1) For LP installations the fire ring must rest on a solid surface such as: Our HPC burner pan (stainless steel), concrete, soil, sand, sheet metal. For natural gas installations, any of the above may be used in addition to other materials such as lava rock, stones, gravel, brick or concrete blocks.
- 2) The fire ring should be enclosed around the circumference with a non combustible material. Electronic ignition fire pits: Enclosure must include venting with a minimum of 18 Sq Inches air intake.
- 3) The fire ring should be down about 4" from the top of the enclosure but no more than 8".
- 4) The fire ring is designed so the holes are on the top. Since LP (propane) is heavier than air and tends to sink it is more difficult to light from above. It is strongly recommended that in LP installations the holes are left facing up.



Outdoor Fire Effects

Worried about cost of gas for a new fire pit?

For the cost of going to the movies, a couple can burn their new HPC 150k fire pit 10 hrs!

GAS BURNING APPLIANCE COST PER HOUR CALCULATION

When calculating the cost of operation of a gas appliance, keep in mind that an appliance often does not operate at its Btu rating. The actual Btu consumption (efficiency) is impacted by several factors that can and often do, reduce the amount of fuel that actually reaches the point of ignition and therefore reduces the amount used.

Example: An appliance rated for 100,000 Btu operating at 90% efficiency burns only 90,000 Btu per hour.

Some of the factors that impact gas flow from the meter to the appliance are: diameter of pipe, length of pipe, number of fittings such as elbows, gas pressure of incoming supply and capacity of external shutoff valve.

NATURAL GAS

Is billed to us as a cost per CCF (100 cubic feet) or MCF (1,000 cubic feet) or therm. 1 CCF is 100 cubic feet and will produce 104,000 BTU

To calculate the cost per hour:

1) Divide the BTU rating of your appliance by 104,000. This will give you the percentage of a CCF (100 cubic feet) your appliance will use if it operates at 100% efficiency.

Example: If your appliance is rated at 90,000 BTU per hour, divide that by 104,000. The result will be .087

2) Multiply the cost of a CCF (100 cubic feet) by the percentage result of step 1. Example: \$1.30 x .087 = \$1.13.

Your Appliance	Percentage of a CCF	Your cost of a CCF (100 cubic feet) check your gas bill				
		<u>\$.80</u>	<u>\$1.00</u>	<u>\$1.20</u>	<u>\$1.40</u>	<u>\$1.60</u>
90,000	.087	.69	.87	1.04	1.22	1.39
150,000	.144	1.16	1.45	1.73	2.02	2.30
270,000	.260	2.08	2.59	3.12	3.64	4.16
415,000	.399	3.19	3.99	4.79	5.59	6.38

LP

1 gallon weighs 4.24 lbs.

1 gallon produces approximately 91,500 BTU

20 lb. tank holds about 4.72 gallons

4.72 gallons produce about 432,000 BTU

Cost of a gallon in 100 lb and smaller tanks is about \$2.70. In larger tanks it comes down to about \$2.10 per gallon.

To Calculate:

- 1) Divide the cost per gallon by the number of BTU produced by a gallon. This will give you the cost for 1 BTU.
- 2) Multiply this result by 10,000 to get the cost per 10,000 BTU.
- 3) To determine the cost per hour. Multiply the cost for 10,000 BTU by the number of 10,000 BTU segments there are in the BTU rating of your appliance.

Example: 90,000 BTU appliance has 9. Multiply the 10,000 BTU cost by 9.

A 150,000 BTU appliance has 15. Multiply the 10,000 BTU cost by 15.

<u>At \$2.70 Cost</u>	<u>At \$2.10 Cost</u>
90,000 BTU System = \$ 2.65	\$2.06
150,000 BTU System = \$ 4.42	\$3.43
270,000 BTU System = \$ 7.96	\$6.18
415,000 BTU System = \$12.24	\$9.50

YOUR COSTS MAY DIFFER SIGNIFICANTLY FROM THESE