



King / Princess

## **BLAZE KING**

King / Princess

Free Standing Wood Stoves

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Blaze  King  
[www.blazeking.com](http://www.blazeking.com)





King Classic shown with Black Door, Black Rails and Optional Side Shields



King Parlor shown with Satin Door, Satin Legs, Satin Rails and Optional Side Shields & Ash Drawer



King Ultra shown with Black Door and standard Convection Deck

# KING

**Maximum Performance** At 88% LHV<sup>f</sup> efficient, 82% HHV<sup>f</sup>, the King is the most efficient wood stove in the world. This allows you to get the most heat out of your wood to reduce your heating costs.

**Maximum Size** The King has the deepest and also one of the largest fireboxes of any stove on the market—it is for serious wood burners. This firebox is great for families who live in colder climates, have larger homes or need heat for longer periods of time. You can fit up to 91 lbs. of wood into the King's 4.32 cu.ft.

firebox. That's equal to 703,390 BTUs of available wood energy. The King can burn for 40+ hours on low or produce a tremendous amount of heat for 12 to 16 hours, depending on your installation and wood type.

The distance from the door opening to the bottom of the firebox is 9". Our design minimizes any chance of coals rolling forward and out of the firebox when the door is opened. The deep firebox keeps the removal of ash to a minimum.

**Style Choices** There are three styles to choose from; the King

Parlor, the King Classic and the King Ultra. The Parlor comes with cast iron legs for a more traditional look while the Ultra is versatile because of its large, standard ash drawer. The Classic has a lower profile which makes this model more install friendly. You can finish any of these styles with decorative, plated finishes.

### King calculations for BTUs and burn times

\*You can fit 91lbs of wood into the King 40 size firebox (4.32 cu.ft.). Based on an EPA recognized equivalent of one pound of non-resinous wood equal to 8,500 BTU's and one pound of resinous wood equal to 9,700 BTU's per pound, giving a weighted average of 9,100 BTU's per pound. (9,100 BTU's per lb. x 91lbs = 827,518 BTU's - 15% moisture content = 703,390 BTU's)

\*\*LHV 703,390 x 88% efficiency = 618,913 BTU's ÷ 12 hours = 51,582 BTU's. HHV 703,390 x 82% efficiency = 576,780 BTU's ÷ 40 hours = 14,419 BTU's.

\*\*\*LHV 703,390 x 88% efficiency = 618,913 BTU's ÷ 40 hours = 15,475 BTU's. HHV 703,390 x 82% efficiency = 576,780 BTU's ÷ 40 hours = 14,419 BTU's.

<sup>f</sup>Length of burn time, sq. ft. heated, Heat Output and BTU's depend on type of wood, moisture content, house insulation and climate conditions.

Specifications: King	Optimum Performance (LHV)	Real World Tested Performance (HHV)
Maximum heat input**	703,390 BTU's	703,390 BTU's
Efficiency	88%	82% (EPA listed efficiency)
Constant Heat output on High***	51,582 BTU's/hour up to 12 hours	48,065 BTU's/hour up to 12 hours
Constant Heat output on Low****	15,475 BTU's/hour up to 40 hours	14,419 BTU's/hour up to 40 hours
Square Feet Heated	2000 – 3000	
Maximum Log Size	Up to 23**	
Burn Time*	Up to 40 hours on low	
Emissions (grams/hour)	1.76 g	
Firebox Size	4.32 cu. ft.	
Flue Size (do not reduce)	8"	
CO % Weighted Average	0.29%	





Princess Ultra shown with Satin Door, Satin Rails and Optional Convection Deck

# PRINCESS

**Correct Firebox Size** It is important that you pick the correct stove size to heat your home. The Princess, at 2.85 cu. ft., has a larger size firebox. All Blaze King catalytic stoves have a thermostat control to allow you to regulate the heat output making it usable in a wide variety of home sizes.

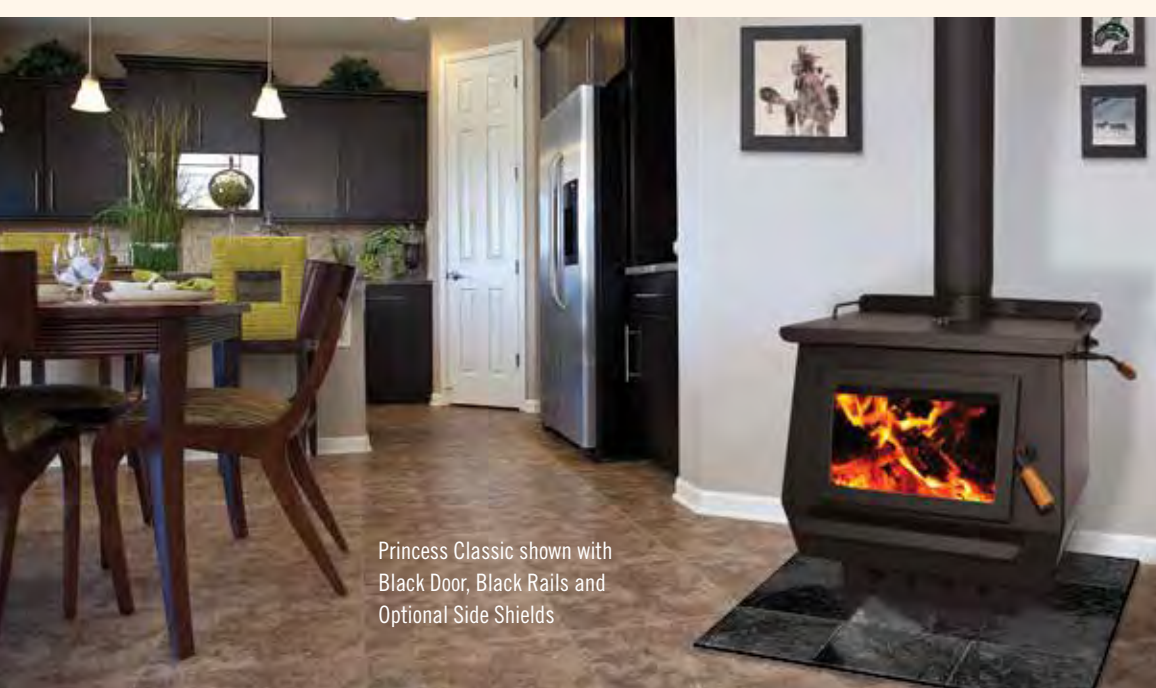
**A Deeper Firebox is a Safer Firebox** Our design minimizes any chance of coals rolling forward and out of the firebox when the door is opened. The distance from the door opening to the bottom of the firebox is 6 in., allowing the Princess to hold up to 60 lbs. of wood. Our deep fireboxes minimize the need to remove ashes.



External Door Latch



Convection Deck



Princess Classic shown with Black Door, Black Rails and Optional Side Shields



Princess Parlor shown with Black Door, Satin Legs, Satin Rails and Optional Side Shields

Specifications: Princess	Optimum Performance (LHV)	Real World Tested Performance (HHV)
Maximum heat input**	464,042 BTU's	464,042 BTU's
Efficiency	88%	81% (EPA listed efficiency)
Constant Heat output on High***	40,836 BTU's/hour up to 10 hours	37,587 BTU's/hour up to 10 hours
Constant Heat output on Low****	13,612 BTU's/hour up to 30 hours	12,528 BTU's/hour up to 30 hours
Square Feet Heated	1200 – 2500	
Maximum Log Size	Up to 20***	
Burn Time*	Up to 30 hours on low	
Emissions (grams/hour)	2.42 g	
Firebox Size	2.85 cu. ft.	
Flue Size	6"	
CO % Weighted Average	0.15%	

### Princess calculations for BTUs and burn times

\*You can fit 60 lbs. of wood into the Princess size firebox (2.85 cu.ft.). Based on an EPA recognized equivalent of one pound of non-resinous wood equal to 8,500 BTU's and one pound of resinous wood equal to 9,700 BTU's per pound, giving a weighted average of 9,100 BTU's per pound. (9,100 BTU's per lb. x 60lbs = 545,932 BTU's - 15% moisture content = 464,042 BTU's)

\*\*LHV 464,042 x 88% efficiency = 408,357 BTU's ÷ 10 hours = 40,836 BTU's. HHV 464,042 x 81% efficiency = 375,874 BTU's ÷ 10 hours = 37,587 BTU's.

\*\*\*LHV 464,042 x 88% efficiency = 408,357 BTU's ÷ 30 hours = 13,612 BTU's. HHV 464,042 x 81% efficiency = 375,874 BTU's ÷ 30 hours = 12,529 BTU's.

\*Length of burn time, sq. ft. heated, Heat Output and BTU's depend on type of wood, moisture content, house insulation and climate conditions.



# King and Princess Specifications

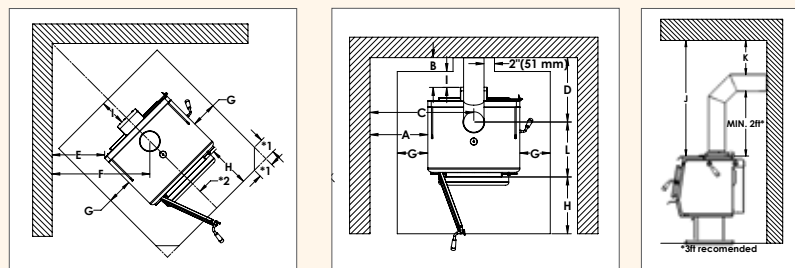
## King and Princess

**Clearances to Combustibles** (See owner's manual for complete list prior to install)

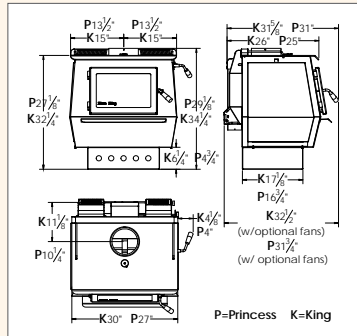
	King Single Wall Pipe	King Mobile Home/ Reduced Clearances*	Princess Single Wall Pipe	Princess Mobile Home/ Reduced Clearances*
<b>A</b> – Side Wall to Side of Unit	16"	10"	16"	10"
<b>B</b> – Rear Wall to Back of Unit	9"	6"	9"	6"
<b>C</b> – Side wall to Flue Center	Classic/Parlor = 31" Ultra = 31½"	Classic/Parlor = 25" Ultra = 25½"	29½"	23½"
<b>D</b> – Rear Wall to Flue Center	20 1/8"	17 1/8"	19 1/4"	16 1/4"
<b>E</b> – Adjacent Wall to Corner of Unit	14"	6"	14"	6"
<b>F</b> – Adjacent Wall to Flue Center	Classic/Parlor = 29 3/8" Ultra = 30"	Classic/Parlor = 21 1/8" Ultra = 22"	28"	20"
<b>G</b> – Edge of Hearth Pad to Side of Unit	2" (US) 8" (Canada)	2" (US) 8" (Canada)	3" (US) 8" (Canada)	3" (US) 8" (Canada)
<b>J</b> – Minimum Alcove Height (from stove top)	49"	49"	49"	49"
<b>K</b> – Horizontal Flue to Ceiling (USA)	18"	N/A	18"	N/A
<b>L</b> – Center of flue to edge of door opening	16 3/8"	16 3/8"	16 1/8"	16 1/8"

\*Reduced Clearances: Must use Fan Kit or Rear Shield & Double Wall Pipe.  
\*Mobile Home: Must use Fan Kit or Rear Shield & Double Wall Pipe and Fresh Air Intake Kit  
Check Local Codes/Pipe Manufacturer Requirements for Clearances. In all of Canada and most of USA, 18" Clearances from single Wall Pipe are required.

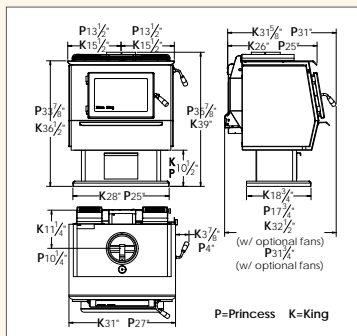
## Clearance Diagrams



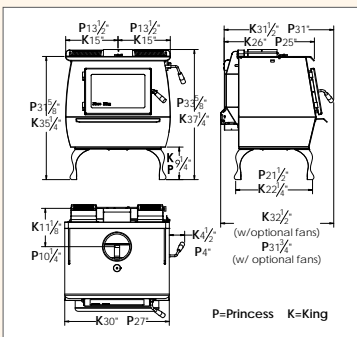
## Classic



## Ultra



## Parlor



Specifications	King	Princess
Sq. ft. heating capacity	1500 to 3,000 sq.ft.	1,200 to 2,500 sq.ft.
Wood length	Up to 23**	Up to 20***
Wood capacity (soft wood)	50 lb.	43 lb.
Wood capacity (hard wood)	91 lb.	60 lb.
Flue size	8"	6"
Door opening	17 3/4" x 10"	16 3/8" x 9"
Firebox depth (front to back)	19" (brick to brick) 21 1/2" (brick to glass)	18" (brick to brick) 20 1/2" (brick to glass)
Firebox width	25 1/2"	21 1/8"
Firebox height	15 1/2"	12 1/2"
Firebox capacity	4.32 cu.ft.	2.85 cu.ft.
Emissions	1.76 grams/hour	2.42 grams/hour
Maximum heat input*	703,390 BTU's	464,042 BTU's
Heat output on high**	51,582 BTU's/hour for 12 hours	40,836 BTU's/hour for 10 hours
Low burn time°	Up to 40 hours	Up to 30 hours
High burn time°	Up to 12 hours	Up to 10 hours
Approximate weight (Ultra)	460 lbs.	400 lbs.
Approximate weight (Classic)	416 lbs.	355 lbs.
Approximate weight (Parlor)	450 lbs.	385 lbs.

\*It is possible to fit a 23" log into a King Stove but the best burning characteristics are gained when you use log lengths of 17".  
\*\*It is possible to fit a 20" log into a Princess Stove but the best burning characteristics are gained when you use log lengths of 16".

Options	King and Princess Ultra	King and Princess Parlor	King and Princess Classic
Pedestal	-	-	S
Pedestal with Ash Pan	S	-	-
Parlor Style Leg Option (Must choose one)			
Cast Iron Legs (Black)	-	S	-
Cast Iron Legs Plated (Satin or Gold)	-	O	-
Ash Pan	-	O	-
Door and Top Rail Options (Must choose one)			
Painted Door (Black)	O	O	O
Satin or Gold Plated Door	O	O	O
Painted Top Rails (Black)	O	O	O
Plated Top Rails (Satin or Gold)	O	O	O
Dual Fan Kit	O	O	O
Rear Heat Shields	O	O	O
Side Shields	S	O	O
Convection Deck (King)	S	-	-
Convection Deck (Princess)	O	O	O

S = Standard Feature, O = Optional Feature, - = Not available

## King Scientific Burn Chart Offers the Proof! Burns Longer, Cleaner & More Efficiently!

This graph plots the results of a test run by Blaze King Industries, Inc. in its Research and Development laboratory on Friday, August 23, 2002. The test, of a Blaze King® KE 1107, was run according to WHA Wood Heating Alliance standards. The lines on this graph trace the temperatures recorded by thermocouple sensors within the catalytic combustor and centered in the flue pipe 48" above the stove top.

**A**—With a hot fire burning and 54-pound load of Tamarack in the firebox, the

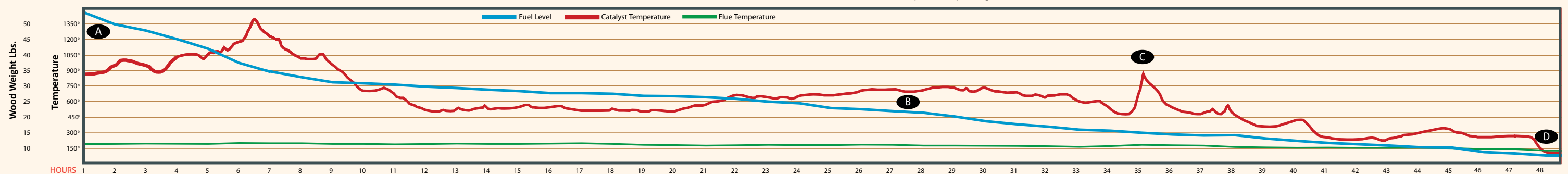
thermostat was closed down to a low setting. Time Friday afternoon 3:30p.m. Temperatures at the sensing locations immediately begin to drop, in response to the thermostat setting. Although the flue temperature soon drops below 200 degrees, indicating a slow burn, the catalyst remains lit, actively consuming the smoke and pollutants which would otherwise be exhausted up the stack.

**B**—Saturday, August 24, 6:00p.m., 24+ hours at low burn and 22 pounds of fuel

remain. Average fuel consumption so far 1.02 pounds per hour. Assuming a useful BTU/pound for the Tamarack of 8,450 and an EPA weighted average overall heating efficiency of 82.5% for the model KE 1107, we get an average heat output of more than 7000 BTU per hour over the 27 hour period of low, clean burn.

**C**—Peaks like this result from the burning wood collapsing, stirring up sparks and smoke (which sets off a flurry of combustor activity), and exposing unburned wood to the fire, resulting in rising firebox temperatures. Note how the thermostat responds to this increase, controlling the air intake to the fire, and automatically lowering the combustion to its previous operating level.

**D**—After more than 47 hours of clean burning, the catalytic combustor finally goes out, having simply run out of fuel. The remaining volatiles are being consumed within the firebox, before they can reach the combustor. The fire itself is not completely out. A bed of hot coals remains, continuing to produce heat for more than an additional 7 hours! Adding more fuel during that time would recharge the fire and relight the combustor. That's more than 47 hours of continuous heating, with an instant potential for continuing the burn almost indefinitely. Note too, how the flue temperature remains right around 200 degrees for nearly the entire 47-hour burn. The stove's heat is being put into the room, not wasted up the stack!





**Catalytic Technology** Blaze King has been making large wood stoves for 35 years. Over this time period we have built a tradition of craftsmanship and performance that is unequalled. In 1983 Blaze King invented the first hybrid wood stove using air tubes and a catalytic converter. A year later Blaze King received the first certificate of compliance, number 001, for the first clean burning wood stove in North America. We received this certificate from the Oregon Department of Environmental Air Quality which was a forerunner to today's regulatory body, the EPA. A refined version of this technology is what you see in every catalytic Blaze King today.



**Thermostat control (No electricity required)** Blaze King's built-in thermostat constantly monitors the heat output of your stove. It automatically adjusts the air required for combustion. This unique technology, where we combine the efficiencies of a catalytic combustor with a built-in thermostat, provides the longest burn times of any wood stove. You get a full night's sleep without having to reload your stove. It also means that when you return from work, your stove is still hot and your home is warm.



**70% turn down** Fine-tuned automatic airflow, as our thermostat and catalyst work in tandem, allows you to turn down your Blaze King catalytic stove by up to 70%. Non Blaze King stoves only turn down by 33% and have little control over their heat output. Because of this most people use expensive electric heat in the spring and fall because they cannot control the heat output of their secondary air wood stove. With a 70% turn down ability a Blaze King is perfect to heat your home in the shoulder season saving you money on heating costs.



**Easy to operate** Light a fire as per the instructions in your owner's manual. After you have established a good fire and the thermometer needle is well into the active zone simply select your heat setting. Your Blaze King will now automatically control the heat from your stove until you need to load it again, which could be up to 40 hours later depending on the model you selected.

**Burn 33% less wood** The combination of our exclusive thermostat and catalytic combustor technology makes your Blaze King stove one of the most efficient wood stoves in the world. The proof of this is in our flue temperatures. Non Blaze King stoves have flue temperatures of between 600° F and 900° F while your Blaze King flue temperatures are between 150° F and 300° F. Non Blaze King stoves pump valuable heat up the flue. Your Blaze King catalytic stove keeps the heat in your home saving you money. By making your stove this efficient you will burn up to 33% less wood, cut, stack, load and clean 33% less wood. This is a major advantage that only a Blaze King offers.

**Less Cleaning** All Blaze King stove's produce very fine ash because we extract every last drop of energy from the wood. As a result you can go for very long periods before you have to empty your stove.

**Close Clearances** The unique design of a Blaze King makes it possible for it to be placed tightly into a corner. Close clearance options allow for more versatile installs. Double layers of bricks only require a spark protector for floor protection, saving you hundreds of dollars on your installation costs.

**10 Year Extended Warranty** Because we believe in the technology and craftsmanship built into every Blaze King stove we are now pleased to offer a 10 year extended warranty on your catalytic combustor