



Efficiency+[®]

High Efficiency, Gas Fired Heating Boiler

Taking Comfort and Efficiency to the Next Level

An Investment You'll Feel Right at Home with

Heating your home or business is one of the biggest investments you'll ever make...and you deserve a heating system that delivers unmatched comfort, dependability and energy savings, year after year. That's why Efficiency+ from Lochinvar is the smart choice for heating.

Efficiency+, with inputs ranging from 100,000 to 300,000 Btu/hr, more than lives up to its name, with an outstanding 84% thermal efficiency. It has two-stage firing that saves fuel by closely matching heat output to system demand, maximizing operating efficiency.

Two-Stage Firing

During the majority of the heating season less than full boiler input is required to satisfy a heat load. For this reason Lochinvar has developed a two-stage firing system. Two-stage firing — standard equipment on all Efficiency+ boilers — provides dramatic fuel savings by reducing heat output 50%. That means when outdoor temperatures become warmer, the boiler will use less fuel to maintain comfortable indoor temperatures.

High Fire
With standard two-stage firing, Efficiency+ reduces gas consumption.

Low Fire
On colder days the boiler fires at full input.

Stage 1 **Stage 2**

In warmer conditions Efficiency+ reduces heat output to save energy and reduce cycling.

Trouble-Free Operation

There's nothing more irritating than a boiler that sputters out when you need it most. That's why Efficiency+ has an integrated boiler control that ensures safe burner operation and prevents nuisance flame-failures.

UP TO **84% THERMAL EFFICIENCY**



Efficiency+ is also designed to operate on low gas pressure — a key consideration in regions where natural gas supply pressure is in the 4 - 5 inch range.

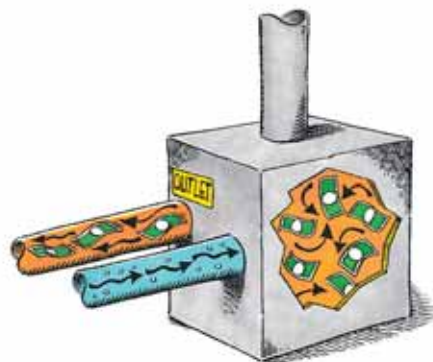
Space-Saving Design

With Efficiency+, you get high efficiency heating in a surprisingly compact unit. It fits easily where other boilers won't.

The Efficiency+ is remarkably light because of its copper tube heat exchanger and other design breakthroughs. For example, Efficiency+ uses Loch-Heat™ tile to reduce unit weight by 25% as compared to conventional cast refractory materials. Loch-Heat tile also increases efficiency by reflecting heat back into the combustion chamber rather than absorbing it.



Thermal Efficiency—Your Reliable Yardstick For Savings



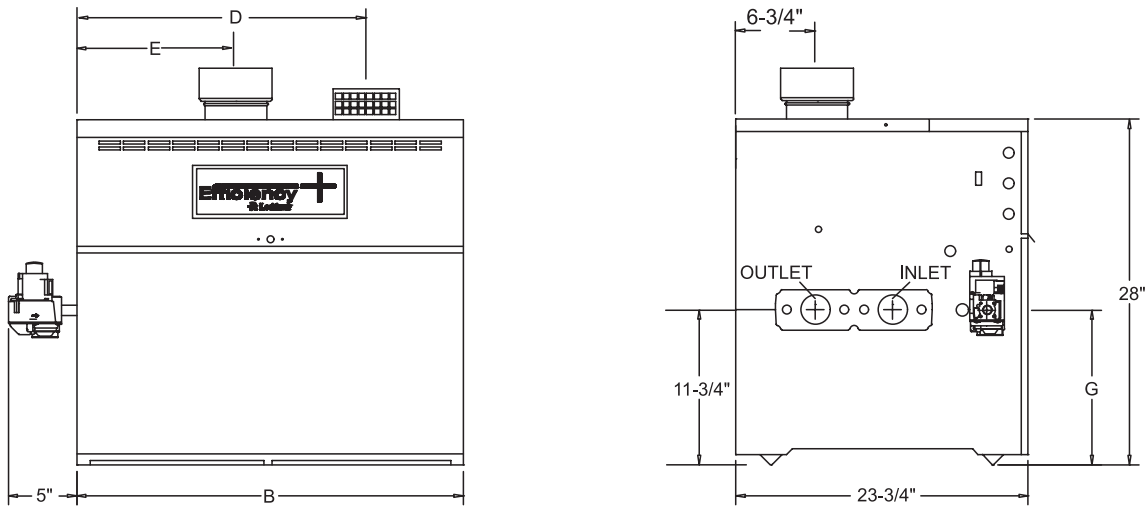
Thermal Efficiency



Combustion Efficiency

Efficiency+ has an 84% thermal efficiency rating, which means 84 cents out of every fuel dollar are used to create heat. Other efficiency ratings can be misleading and result in artificially high ratings.

Efficiency+® Boiler Dimensions & Specifications



Model Number	Btu/hr Input	Btu/hr Output	B	D	E	G	Vent Size*	Gas Conn.	Shipping Weight
EBN150	150,000	126,000	19-3/4"	16"	7-1/4"	11-3/4"	5"	3/4"	245
EBN200	199,999	168,000	23-3/4"	20"	9-1/4"	11-3/4"	5"	3/4"	265
EBN250	250,000	210,000	27-1/2"	23-3/4"	11"	11-3/4"	6"	3/4"	290
EBN300	300,000	252,000	31-1/4"	27-1/2"	13"	11-3/4"	6"	3/4"	310

Notes: Change 'N' to 'L' to denote L.P. models.

Water Connections for models (EB150 - 300) are 2" NPT on 6-1/4" centers.

*Vent size is for conventional venting, venting options require 1" smaller vent diameter.

Air inlet is same as vent diameter.

Performance data based on manufacturer test results.

Standard Features

- 84% Thermal Efficiency
- Two Stage Firing
- Sealed Combustion Chamber
- Stainless Steel Burners
- Low NOx Operation Exceeds the most Stringent Air Quality Requirements
- ASME Copper Finned Tube Heat Exchanger
- 160 PSI Working Pressure
- Gasketless Heat Exchanger Design
- Automatic Reset High Limit
- Loch-Heat Ceramic Tile Combustion Chamber
- Hot Surface Ignition
- ASME Pressure Relief Valve
- 24 Volt Control System
- Pump Relay

- 10 Year Limited Warranty on Heat Exchanger (See warranty for details)

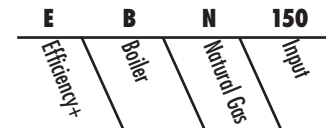
Optional Equipment

- Adjustable High Limit w/ Manual Reset
- Alarm Bell
- Cupro-Nickel Heat Exchanger
- Flow Switch
- Indoor/Outdoor Reset
- Low Water Cut-Off
- MP² Sequencer
- Multi-Stack Frame
- Pump Delay w/ Freeze Protection

Available Firing Systems

- M9 Hot Surface Ignition with Electronic Supervision (Standard)
- M7 California Code

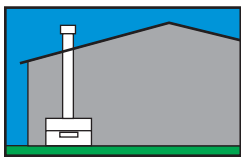
FOR EASE IN ORDERING BY MODEL NUMBER



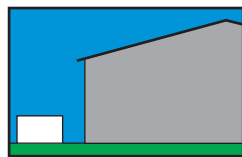
This is a 150,000 Btu/hr natural gas Efficiency+ boiler.

Registered Under U.S. Patent #5,989,020

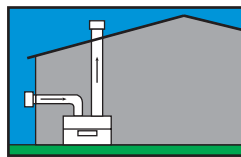
Venting Options



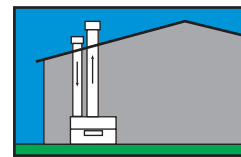
Conventional
Vents into conventional flue or vent breaching using Type B double wall vent.



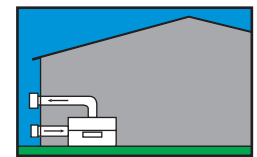
**** Outdoor Vent Kit**
Use when indoor space is a problem or if outdoor location gives better access.



**** E+ Direct Air Vent with Sidewall Inlet**
Draws fresh combustion air from an outside wall horizontally, and vents combustion by-products through a vertical flue.



Direct Vent Vertical
Draws fresh combustion air from outside, and vents combustion by-products through a vertical flue.



**** Direct Vent Horizontal**
Draws fresh combustion air from outside, then vents by-products through a side wall.

** Requires factory supplied vent kit.



Lochinvar®
High Efficiency Water Heaters, Boilers and Pool Heaters



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