



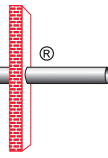
Efficiency 
**High Efficiency,
Heating
Boiler**



**Taking Comfort
And Efficiency To
The Next Level**



Efficiency⁺



An Investment You'll Feel Right At Home With

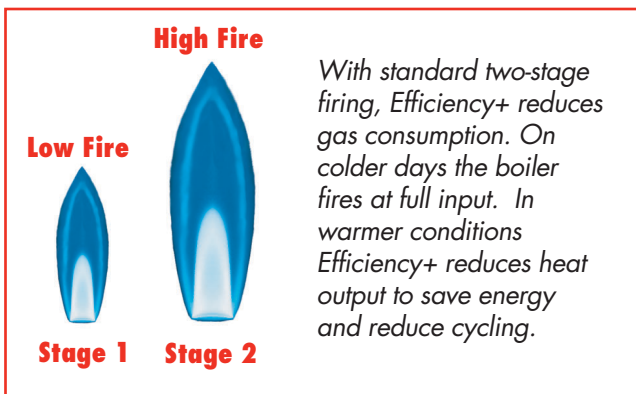
Heating your home or business is one of the biggest investments you'll ever make...and you deserve a heating system that delivers unmatched comfort, dependability and energy savings, year after year. That's why Efficiency+ from Lochinvar is the smart choice for heating.

Efficiency+ 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.

Efficiency+ is available in five models, with inputs ranging from 100,000 to 300,000 Btu/hr. Most competitive models don't exceed 170,000 Btu/hr, thus requiring two units to equal the output of just one 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. Two-stage firing is ideal for applications utilizing indoor/outdoor reset—and is advantageous in systems where the Efficiency+ is used with an Efficiency Mate indirect heater to produce domestic hot water.



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. It continuously monitors flame performance and can quickly restart the ignition sequence automatically.



Plus the boiler control has internal diagnostic lights for easier troubleshooting.

The unit's pre-mix burner ensures clean, quiet combustion in all atmospheric conditions. Efficiency+ is "environmentally friendly," with the lowest NOx rating in the industry.

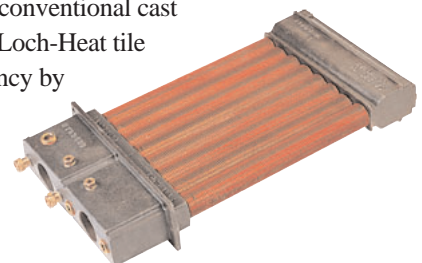
Efficiency+ is also designed to operate on low gas pressure — a key consideration in regions where natural gas supply pressure is in the 4 - 5 inch range.

Thanks to its direct-vent capabilities, you don't need an existing chimney — or any chimney improvements — to get money-saving boiler heat. Efficiency+ draws its combustion air directly from outside your home—and it can vent out a sidewall. You get the benefits of direct venting without any special equipment...no induced draft fan or powered vent cap. When it comes to retro-fit applications, Efficiency+ is your best investment.

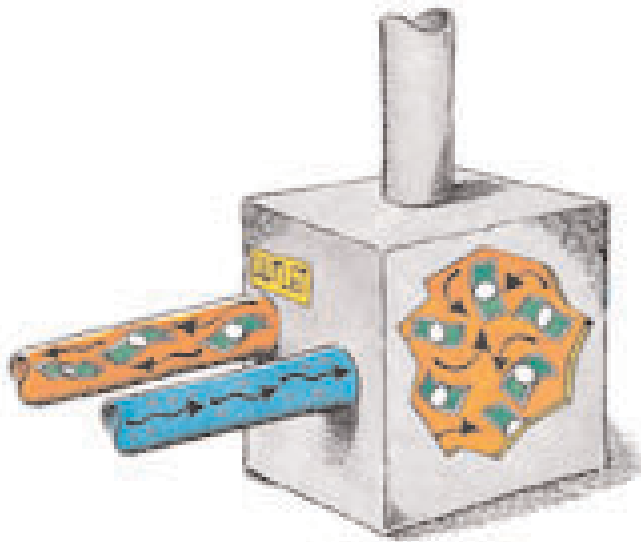
Space-Saving Design

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

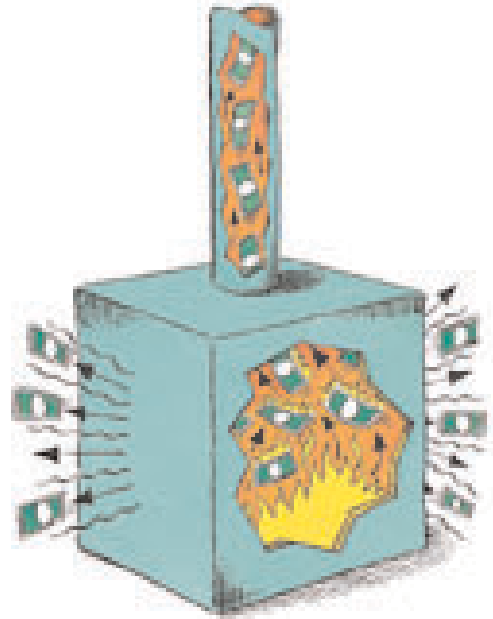
The Efficiency+ is remarkably light because of its copper tube heat exchanger and other design breakthroughs. For example, Efficiency+ uses Loch-Heat™ tile to reduce unit weight by 25% as compared to conventional cast refractory materials. Loch-Heat tile also increases efficiency by reflecting heat back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



Thermal Efficiency—Your Most 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.

Ideal For Radiant Heating



If you're using radiant heating, this is the boiler for you. It's specially designed to maximize the efficiency of radiant heating systems.

Efficiency+ is

easy to adapt to the low water temperatures typically used in radiant heating. All you need is a simple, low-cost bypass.

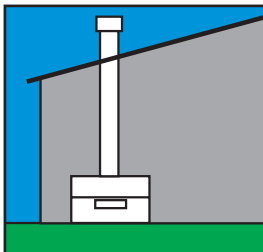
And the unit's low-mass design means that water gets heated quickly. Efficiency+ delivers a quicker response to demand — and that can mean significant savings!

Trust The Hydronics Leader

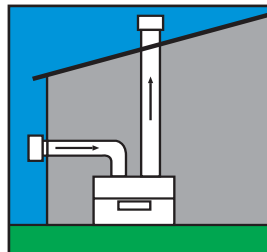
For more than 80 years, Lochinvar has been manufacturing boilers for homes just like yours. We have one of the most ambitious research & development programs in the business...and that's why Efficiency+ incorporates advanced features today that the competition won't unveil for a decade.

Efficiency+ takes comfort and savings to the next level. For more information, call your Lochinvar dealer today.

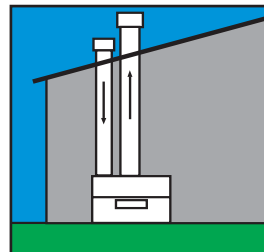
Venting Options



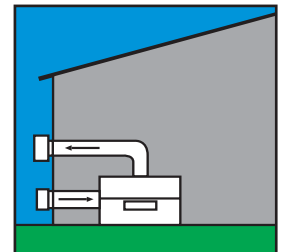
Conventional
Vents into conventional flue or vent breaching using Type B double wall vent.



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



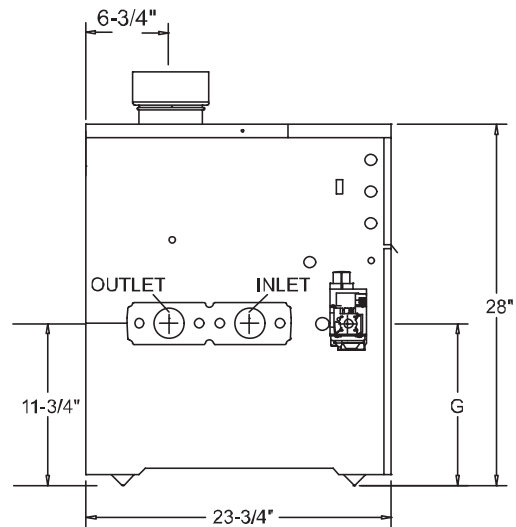
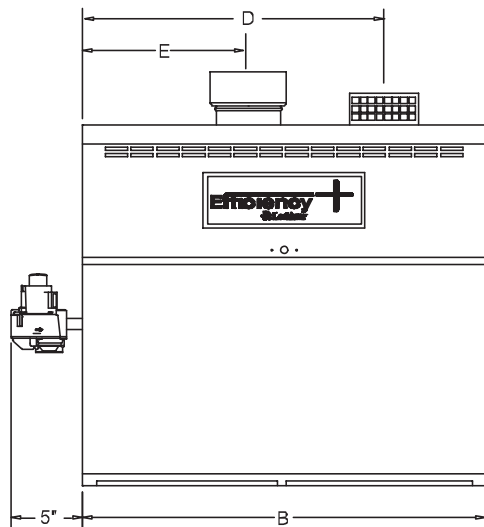
Direct Vent Vertical
Draws fresh combustion air from outside, and vents combustion by-products through a vertical flue.



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

* Requires factory supplied vent kit.

Efficiency+® Boiler Dimensions & Specifications



Model Number	Btu/hr Input	Btu/hr Output	B	D	E	G	Vent Size*	Gas Conn.	Shipping Weight
EBN100	100,000	84,000	18-3/4"	15"	7-1/4"	15"	4"	1/2"	220
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 (EB100) are 1-1/4" NPT on 8" centers.
 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.
 All models approved indoor for installation only.

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
- Loch-Heat Ceramic Tile Combustion Chamber
- Hot Surface Ignition
- ASME Pressure Relief Valve
- 24 Volt Control System
- Pump Delay
- 10 Year Limited Warranty on Heat Exchanger (See warranty for details)

Optional Equipment

- Alarm Bell
- Cupro-Nickel Heat Exchanger
- Flow Switch
- Indoor/Outdoor Reset
- Low Water Cut-Off
- Manual Reset High Limit
- Multi-Stack Frame

Mod-U-Pak Sequencer

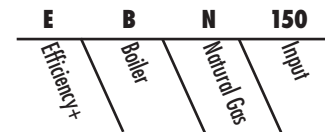
- 2-6 Stage
- 7-10 Stage
- 11-15 Stage
- Indoor / Outdoor Reset

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

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.



Lochinvar
 High Efficiency Water Heaters, Boilers and Pool Heaters



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www.Lochinvar.com