

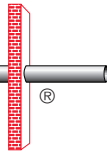


Efficiency
*High Efficiency,
Direct-Vent
Heating
Boiler*

Taking Comfort
And Efficiency To
The Next Level



Efficiency



An Investment You'll Feel Right At Home With

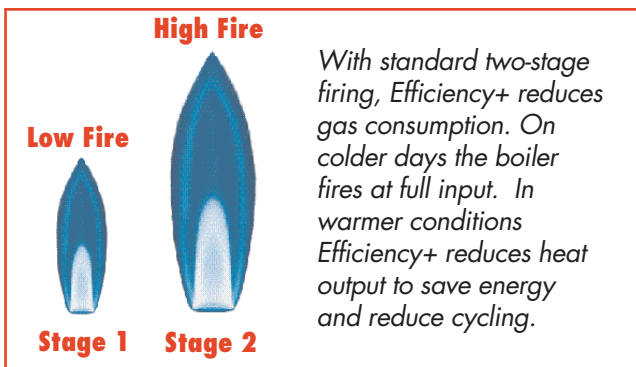
Heat for your home or business is one of the biggest investments you'll ever make...and you deserve a heating system that delivers unmatched comfort, dependability and energy savings, year after year. That's why Efficiency+ from Lochinvar is the smart choice for heating.

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 capacities 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, requiring your immediate attention. 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 the Northeast, Mountain States and other regions where natural gas supply pressure is in the 4 - 5 inch range.

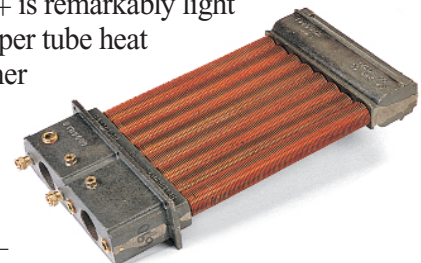
Thanks to its direct-vent capabilities, you don't need an existing chimney—or any chimney improvements—to get money-saving boiler heat. Efficiency+ draws its combustion air directly from outside your home—and it can vent out a sidewall. You get the benefits of direct venting without any special equipment...no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

Space-Saving Design

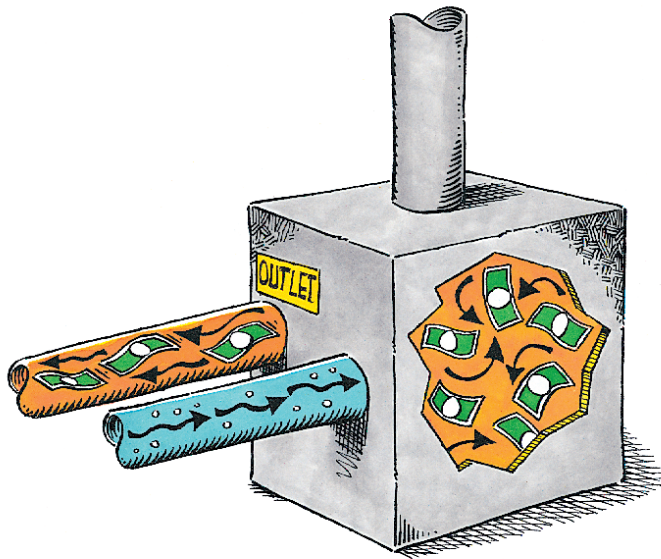
With Efficiency+, you get high efficiency heating in a surprisingly compact unit. It fits easily where other boilers won't.

The Efficiency+ is remarkably light because of its copper tube heat exchanger and other design breakthroughs.

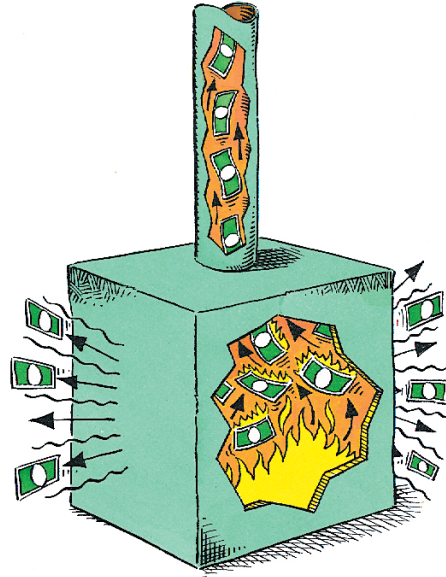
For example, Efficiency+ uses Loch-Heat™ tile—



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.

similar to material found on the Space Shuttle—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.



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 75 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.

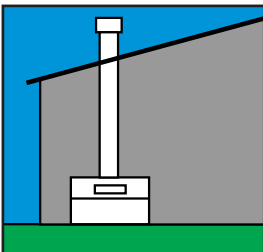
Efficiency+ takes comfort and savings to the next level. For more information, call your Lochinvar dealer today.

Ideal For Radiant Heating

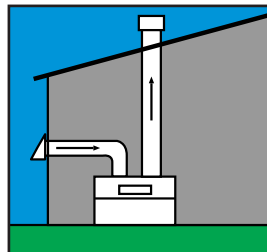
If you're using radiant heating, this is the boiler for you. It's specially designed to maximize the efficiency of radiant heating systems.

Efficiency+ is easy to adapt to the low water temperatures typically used in radiant heating. All you

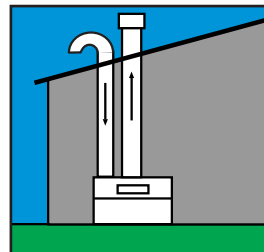
Venting Options



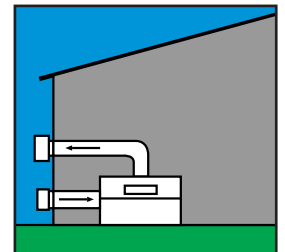
*** Conventional**
Vents into conventional flue or vent breaching using Type B double wall vent.



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

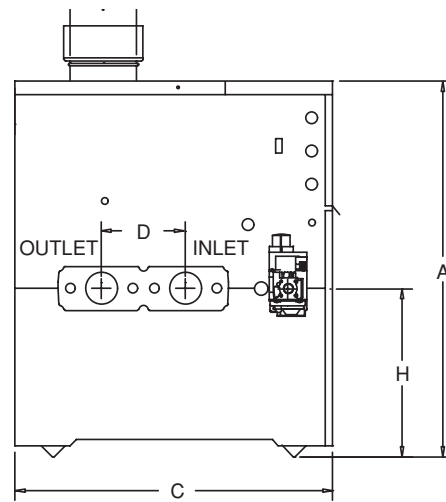
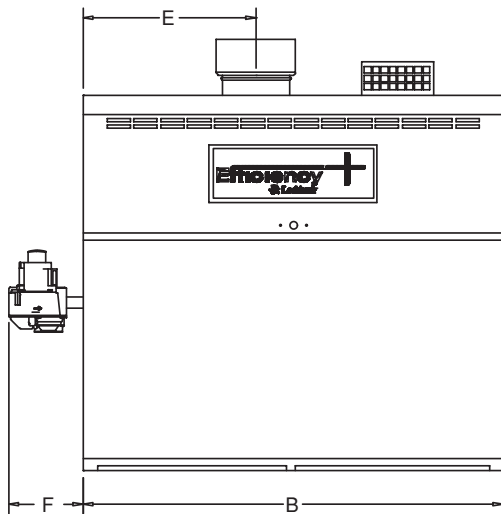


*** Direct Vent Vertical**
Draws fresh combustion air from outside, and vents combustion by-products through a vertical flue.



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

Efficiency+® Boiler Dimensions & Specifications



| MODEL NO | BTU/HR INPUT | BTU/HR OUTPUT | GAS CONN. | A | B | C | D | E | F | H | V | CONVENTIONAL VENT | WATER CONN. | WEIGHT |
|----------|--------------|---------------|-----------|-------|-------|-------|------|------|------|-------|----|-------------------|-------------|--------|
| EBN100 | 100,000 | 84,000 | ½" | 28 ¼" | 18 ¾" | 23 ¾" | 8" | 7 ¼" | 5 ¼" | 11 ¾" | 3" | 4" | 1 ¼" | 180 |
| EBN150 | 150,000 | 126,000 | ¾" | 28 ¼" | 19 ¾" | 23 ¾" | 6 ¼" | 7 ¼" | 5 ¼" | 11 ¾" | 4" | 5" | 2" | 203 |
| EBN200 | 199,999 | 168,000 | ¾" | 28 ¼" | 23 ¾" | 23 ¾" | 6 ¼" | 9 ¼" | 5 ¼" | 11 ¾" | 4" | 5" | 2" | 225 |
| EBN250 | 250,000 | 210,000 | ¾" | 28 ¼" | 27 ½" | 23 ¾" | 6 ¼" | 11" | 5 ¼" | 11 ¾" | 5" | 6" | 2" | 246 |
| EBN300 | 300,000 | 252,000 | ¾" | 28 ¼" | 31 ¼" | 23 ¾" | 6 ¼" | 13" | 5 ¼" | 11 ¾" | 5" | 6" | 2" | 268 |

Note: 'N' equals Natural Gas; Change 'N' to 'L' for Liquid Propane
Air inlet dimension equals vent diameter

Standard Features:

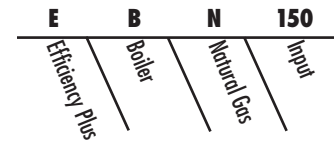
- Burner Flame Observation Port
- High Efficiency Stainless Steel Burners
- Two-Stage Firing (M9)
- Two Adjustable Operators (High and Low Fire, M9)
- Fixed High Limit
- Hot Surface Ignition
- Terminal Strip
- Gasket-less Heat Exchanger
- 30 PSI Pressure Relief Valve
- Pump Relay
- Galvanized Steel Jacket
- Conventional Vent Inserter
- Air Inlet Cover
- ASME Certified for 160 psi Working Pressure
- National Board Registered
- CSA Design Certified for Closet Installation

Optional Equipment:

- Efficiency+ Venting— 50 equivalent feet
- Horizontal Direct Venting— 50 equivalent feet
- Multi-Stack Frame (see accessories section)
- Low Water Cut-Off (probe type)
- Flow Switch
- Manual Reset High Limit
- Pump Delay Switch
- Intermittent Pump
- Alarm Bell
- Indoor/Outdoor Control

U.S. Patent #5,989,020

FOR EASE IN ORDERING BY MODEL NUMBER



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



The Built-In Advantage™



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www.Lochinvar.com