



**Efficiency Pac<sup>®</sup>**

## High Efficiency Commercial Gas Water Heaters

### Commercial Water Heating

Traditional tank-type water heaters build up lime scale deposits when they heat water. This makes the water heater work harder, which leads to reduced efficiency, increased fuel costs, and shorter tank life. Lime scale build-up can cause a typical tank-type unit to fail in as few as 4–5 years. Sometimes less!

The Efficiency Pac from Lochinvar combines the high efficiency of an Efficiency+ (EW series) water heater with the durability of a Lock-Temp baffled storage tank to create a water heating system that performs at peak efficiency year after year.

- **Thermal Efficiency** – the Efficiency Pac delivers a remarkable 84% thermal efficiency. Most tank-type units peak at 80%.
- **No Lime Scale Build-up** – the Efficiency Pac limits lime scale build-up with the scrubbing action of water flow through the solid copper-tube heat exchanger.
- **Unsurpassed Delivery** – the Lock-Temp storage tank employs a baffle that allows 80% tank draw down without a drop in temperature. When combined with an 84% efficient water heater, the results are a First Hour Delivery that can't be beat - 272 gallons for an EPN200-85.
- **Direct-Venting Convenience** – The Efficiency Pac can draw its combustion air directly from outdoors. This feature prevents contamination from airborne dirt particles and chemicals, while isolating the water heater from negative air pressures often found in restaurants and mechanical rooms.
- **Warranty** – 3 year limited warranty on heat exchanger.  
5 year limited warranty on tank.  
1 year limited warranty on parts.

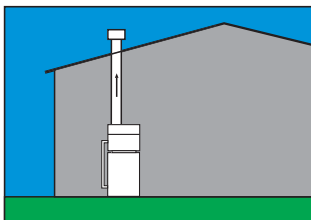


### Fuel Savings Chart

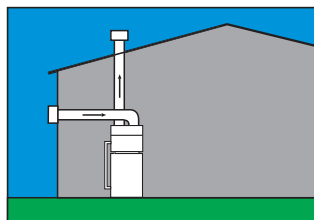
Gallons Per Day Water Usage	Btu required @75% Thermal Efficiency	Btu required @84% Thermal Efficiency	Btu Savings Per Day	Yearly Fuel Savings	Fuel Savings Over 5 Years
500	550,000	491,071	58,929	\$262	\$1,312
750	825,000	736,607	88,393	\$394	\$1,968
1,500	1,650,000	1,473,214	176,786	\$787	\$3,936
3,000	3,300,000	2,946,429	353,571	\$1,574	\$7,872
5,000	5,500,000	4,910,714	589,286	\$2,624	\$13,120

Fuel Savings calculated at \$1.22 per therm at a 100°F temperature rise.

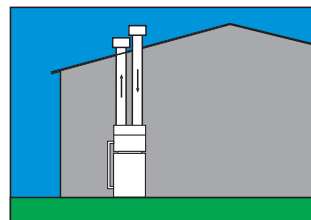
### Venting Options



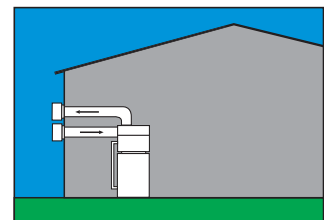
**Conventional**  
Vents into conventional flue or vent breaching using type B double wall vent.



**E+ DirectAir Vent\***  
Draws fresh combustion air from outside and vents combustion by-products through a vertical flue.



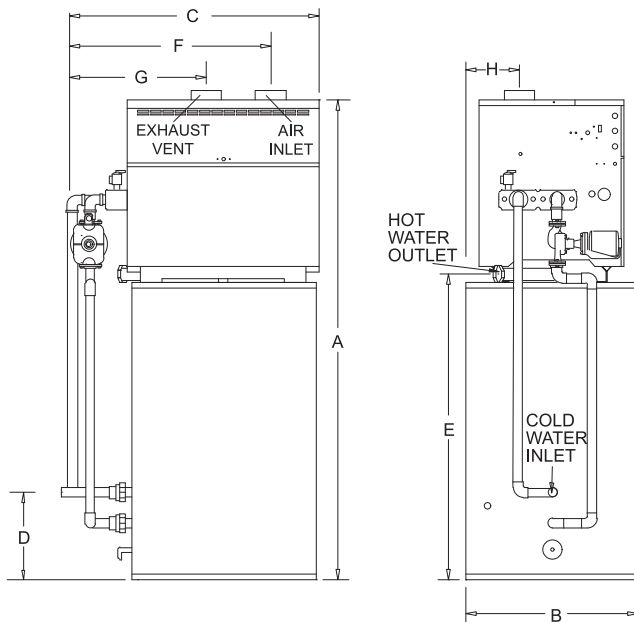
**Direct Vent Vertical**  
Draws fresh combustion air from outside, and vents combustion by-products through a vertical flue.



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

\* Requires factory supplied vent kit.

# Efficiency Pac® Water Heater Dimensions & Specifications



FOR EASE IN ORDERING  
By Model Number

EP	N	150	85
Model	Fuel Type	Btu/hr Input	Tank Capacity

This heater is a 150,000 Btu/hr natural gas Efficiency Pac water heater with an 85 gallon storage tank.

Model Number	Btu/hr Input	Gallon Capacity	GPH @ 100°F Rise	A	B	C	D	E	F	G	H	Vent Size	Shipping Weight
EPN150-085	150,000	85	153	78-1/2"	28"	40"	14-1/2"	50-1/4"	30-1/2"	21-3/4"	9"	5"	728
EPN200-085	199,999	85	204	78-1/2"	28"	40"	14-1/2"	50-1/4"	34-1/2"	23-3/4"	9"	5"	716
EPN200-100	199,999	100	204	75"	32"	44"	16-1/2"	47"	34-1/2"	23-3/4"	11"	5"	811
EPN250-100	250,000	100	255	75"	32"	44"	16-1/2"	47"	38-1/4"	25-1/2"	11"	6"	839
EPN300-100	300,000	100	305	75"	32"	45-3/4"	16-1/2"	47"	42"	27-1/2"	11"	6"	857

Note: Change 'N' to 'L' for LP gas models. (no deration for LP).

Air inlet dimensions equal vent diameter.

Vent size denotes conventional vent.

Performance data is based on manufacturer test results. Gas connections are 3/4" NPT.

Cold water inlet is 2" copper.

Hot water outlet is 1-1/2" copper.

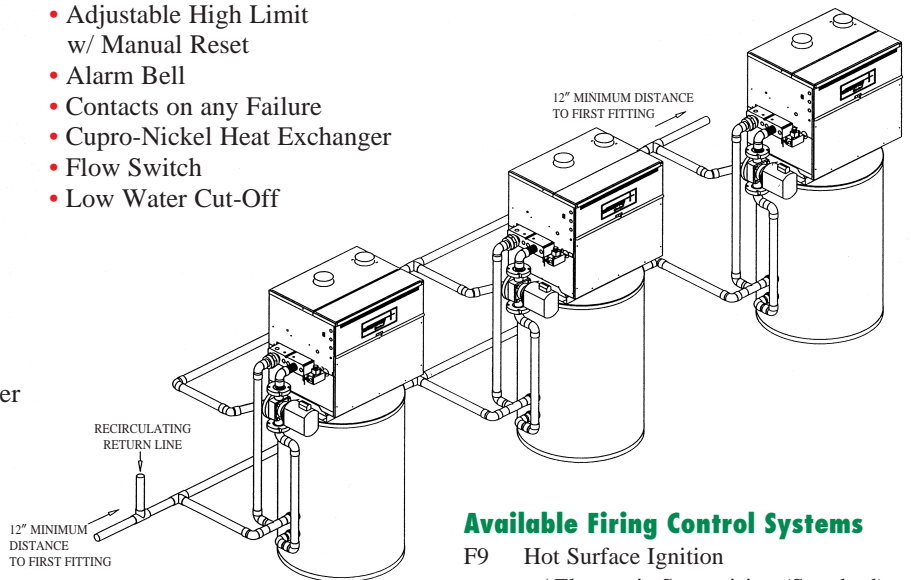
Note: Agency certification applies to EW water heater.

## Standard Features

- 84% Thermal Efficiency
- 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
- All Bronze Circulating Pump
- Pump Delay w/ Freeze Protection
- Manual Reset High Limit
- Automatic Reset High Limit
- Glass-Lined Water Surfaces
- Loch-Heat Ceramic Tile Combustion Chamber
- Hot Surface Ignition
- ASME Pressure Relief Valve (Heater)
- ASME Temperature & Pressure Relief Valve (Tank)
- Foam Insulated, Glass-Lined Storage Tank
- 24 Volt Control System
- Brass Drain Valve (Tank)
- 3 Year Limited Warranty on Heat Exchanger
- 5 Year Limited Warranty on Tank
- 1 Year Limited Warranty on Parts

## Optional Equipment

- Adjustable High Limit w/ Manual Reset
- Alarm Bell
- Contacts on any Failure
- Cupro-Nickel Heat Exchanger
- Flow Switch
- Low Water Cut-Off



## Available Firing Control Systems

- F9 Hot Surface Ignition w/ Electronic Supervision (Standard)
- F7 California Code

US and Foreign Patents 5,989,020



Lochinvar, LLC  
300 Maddox Simpson Parkway  
Lebanon, Tennessee 37090  
P: 615.889.8900 / F: 615.547.1000  
www.Lochinvar.com

