

# ENDURANCE

Gas Fired Hydronic  
Boilers and Combination  
Boiler/Water Heaters



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**Fully Modulating**

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**For High**

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**Performance**

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# ENDURANCE

## The Industry's Smartest Boiler

### Installation Almost Anywhere

An internal bypass, built-in pump, venting options, small footprint and minimal clearances allow for fast, flexible installation and effortless start-up.

### Environmentally Friendly

NOx levels of less than 25 ppm and 85% AFUE.

### Domestic Hot Water Heating

The EBP combines boiler operation with a steel storage tank to provide domestic water heating to the home.



### Save Big on Fuel Bills

Innovative full modulation. ENDURANCE automatically adjusts to the home's varied heat demands. This saves energy and adds comfort by maintaining an even temperature throughout the home.

### Comfort and Safety

ENDURANCE provides natural, even heat. There are no hot blasts of air, cold spots or chilly corners. And the sealed combustion design safeguards against the possibility of gas or fumes

leaking into the house. ENDURANCE is a perfect fit for radiant floor applications.

### Self-Monitoring

With a sleek design encompassing leading edge technology, ENDURANCE has a built-in microprocessor that guarantees overall performance by monitoring the boiler, tank and flow temperatures. The microprocessor also features a diagnostic display to greatly simplify servicing.

### Available in Three Models and Two Sizes

Setting a new industry standard, Endurance is a gas-fired, fully modulating, sealed combustion boiler. ENDURANCE is offered in two sizes: the 110 modulates from 61,800 to 108,200 BTU/hr., and the 175 modulates from 102,900 to 175,300 BTU/hr.

### ENDURANCE EBP

is a combination boiler/water heater.

### ENDURANCE EDP

is a boiler for space heating.

### ENDURANCE EDN

is a non-ferrous version of the EDP boiler for space heating.

## Features

- 85+% AFUE
- Automatic burner modulation from 57% to full fire
- NOx levels less than 25 ppm
- Venting - Direct vent (sealed combustion with ducted combustion air in concentric vent) or Category III
- Built-in diagnostics with memory and 3-character alpha-numeric temperature readout and error codes
- Hot surface ignition
- Electrical - 115V-60HZ-1PH less than 15 amps with 24V transformer mounted and wired
- Built-in circulating pump and by-pass loop
- Equipped with anti-condensing controls
- Built-in freeze protection
- Pump exercizer to ensure pump remains free from corrosion
- Built-in overheat thermostat (safety limit)
- 20 year limited warranty
- Design certified and tested by International Approval Services (American & Canadian Gas Associations)
- Material specifications per ASME code, Section IV
- Maximum working pressure - water 30 P.S.I., ASME rated
- Hydrostatic test pressure at factory - 60 P.S.I.
- Natural or propane gas
- Minimum gas supply pressure - 4" w.c.
- Maximum gas supply pressure - 13" w.c.

# Fully Modulating to Increase Performance and Comfort



The EBP Model features a 20 gallon tank, heat exchanger and low limit control

The EDP Model is a compact boiler for space heating.

The EDN Model is a non-ferrous configuration of the EDP model.



## Satisfaction Guaranteed Program

Performance beyond expectations and commitment to customer satisfaction are standard at Laars. We have such confidence in ENDURANCE that we offer a warranty that rivals any in the industry. With the **Satisfaction Guaranteed Program**, you can rest assured

that you and your customers will experience 100% satisfaction with the operation of ENDURANCE

## Made in the USA

Manufactured with pride, ENDURANCE has a 20-year limited warranty.

## Competitive Price

Value pricing and cost-saving features make ENDURANCE a perfect choice.

Minimum Clearances from Combustibles

Measurement	AGA		CGA	
	in.	mm	in.	mm
Left Side	1	25	1	25
Right Side	1	25	1	25
Top	1	25	1	25
Back	1	25	1	25
Front	1	25	1	25
Vent - Direct Vent	0	0	0	0
Vent - Category III	3	76	3	76

Recommended Clearances for Accessibility and Venting

Measurement	AGA		CGA	
	in.	mm	in.	mm
Left Side	6	152	24	610
Right Side	12	305	24	610
Top	14	356	24	610
Back	9	229	12	305
Front	24	610	24	610

**Perfect Heat • Pure Performance**

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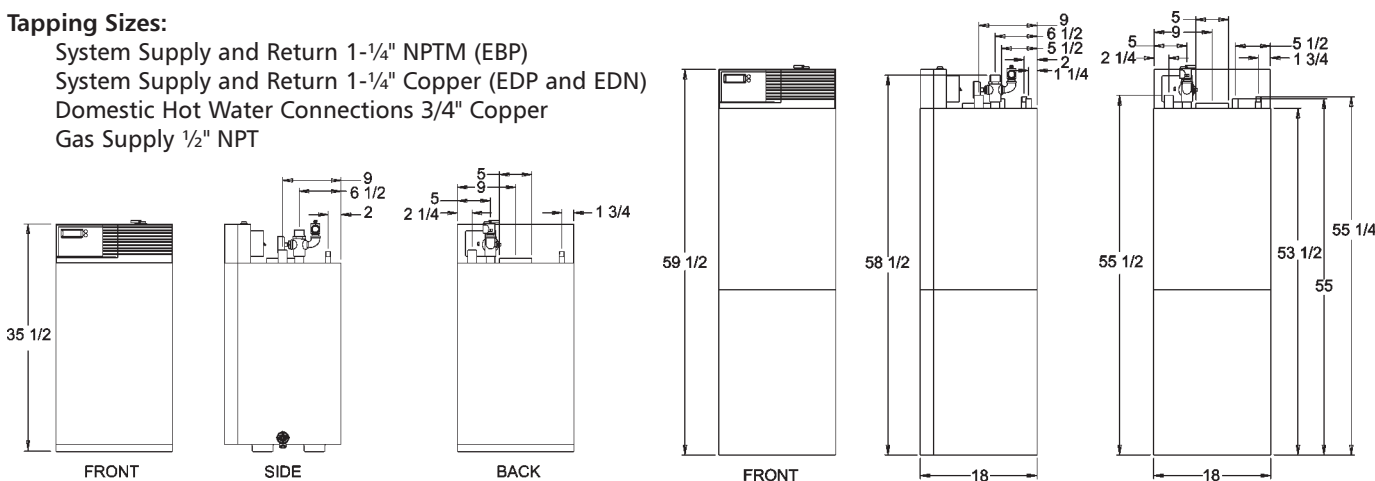
## Specifications

Model	Input		Output		AFUE%	Contin. GPH @ 100°F Rise	Intermittent DHW Output @77°F Rise	NOx Levels ppm
	MBTU/h	kW	MBTU/h	kW				
EDP 110	61.8 to 108.2	18.1 to 31.7	53.7 to 94.0	15.7 to 27.5	85.5	N/A	N/A	<25
EDP 175	102.9 to 175.3	30.1 to 51.4	88.6 to 151.0	25.4 to 44.2	86.1	N/A	N/A	<25
EBP 110	61.8 to 108.2	18.1 to 31.7	53.7 to 94.0	15.7 to 27.5	85.5	114	4 gpm	<25
EBP 175	102.9 to 175.3	30.1 to 51.4	88.6 to 151.0	25.4 to 44.2	86.1	183	5 gpm	<25
EDN 110	61.8 to 108.2	18.1 to 31.7	53.7 to 94.0	15.7 to 27.5	85.5	N/A	N/A	<25
EDN 175	102.9 to 175.3	30.1 to 51.4	88.6 to 151.0	25.4 to 44.2	86.1	N/A	N/A	<25

## Dimensions

### Tapping Sizes:

System Supply and Return 1-1/4" NPTM (EBP)  
System Supply and Return 1-1/4" Copper (EDP and EDN)  
Domestic Hot Water Connections 3/4" Copper  
Gas Supply 1/2" NPT

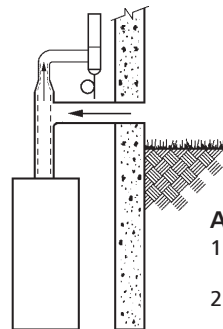
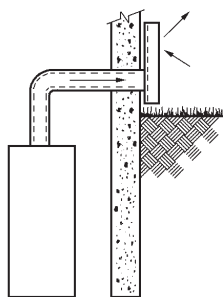
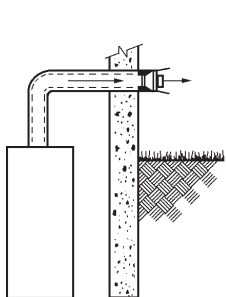


## Venting

### Direct Vent

#### SEALED COMBUSTION

- Utilizes outside air for combustion.
- Horizontal vent lengths up to 15' with three 90° bends.



### Alternative Vent

- Horizontal and vertical venting.
- Up to 50 equivalent feet.
- Can take combustion air from outside or from inside space.
- Vent material must meet code UL1738 (US) or ULC636 (Canada).

### Optional Vent Terminal-Direct Vent:

- For vent locations less than 16 1/2" above grade.



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