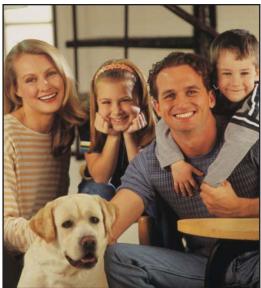


Gas Fired Hydronic Boilers and Combination Boiler/Water Heater







# LAARS<sup>®</sup> 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 20-gallon steel buffer/transfer tank to provide domestic water heating through a powerful plate heat exchanger.

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 flue gases 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 Endurance is a gas-fired, fully modulating, sealed combustion boiler 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.

- Design certified and tested to ANSI standard Z21.13
- Designed and constructed in accordance with the ASME Boiler & Pressure Vessel Code, Sections II, IV, and IX
- Maximum working pressure – water 30 psi, ASME rated
- Hydrostatic test pressure at factory – 60 psi
- Natural or propane gas
- Minimum gas supply pressure 4" w.c.
- Maximum gas supply pressure – 13" w.c.
- 85+% A.F.U.E.
- Sealed stainless steel combustion chamber
- Hot surface ignition
- Automatic burner modulation from 57% to full fire
- NOx levels less than 25ppm

- Venting Direct vent (sealed combustion with ducted combustion air in concentric vent) or Category III
- Design certified for installation directly on a combustible floor (except carpeting)
- One-inch clearance on all 4 sides
- Zero clearance from combustibles to the vent when concentric venting is used
- Electrical: 115V-60HZ 1PH less than 15 Amps with 24V transformer mounted and wired
- Outdoor reset with the addition of outdoor air sensor (limited temperature range available for EBP models)
- Control overrides outdoor reset when air sensor is faulty

- Easy-to-use viewing and programming menus
- 3-character alphanumeric display of temperatures and fault codes
- Displays fault codes for supply sensor, return sensor, tank sensor (EBP only), outdoor air sensor, internal control, and lockout
- Displays 6 temperatures: supply water, return water, tank water (EBP only), heat exchanger temperature rise, outdoor air temperature (when outdoor reset is used), and calculated setpoint (when outdoor reset is used)
- Control LEDs indicate pump energized, attempt to ignite and gas valve energized
- Ignition control LEDs show faults for erroneous flame signal, internal error and lockout

- Low water temperature feature – attempts to run the pump when supply water temperature falls below 39°F (4°C)
- Built-in circulating pump and by-pass loop
- Equipped with anticondensing controls
- Pump exerciser to ensure pump remains free from corrosion
- Built-in safety limit
- Copper finned, cylindrical tube design heat exchanger brazed into ASME bronze headers
- EBP units store 20 gallons of boiler water to provide instantaneous domestic hot water production through a brazed plate heat exchanger, with DHW priority
- 20 Year limited warranty



## FULLY MODULATING TO INCREASE PERFORMANCE AND COMFORT

#### **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

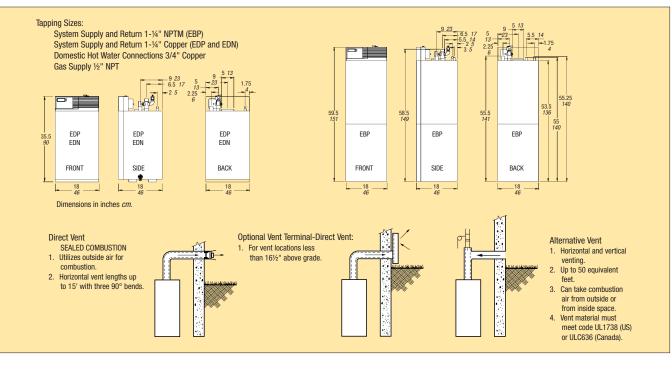
**Made in the USA** Manufactured with pride, ENDURANCE has a 20-year limited warranty.

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

### **DIMENSIONS AND VENTING**



The EDP Model is a compact boiler for space heating. The EDN Model is a non-ferrous configuration of the EDP model. The EBP Model features a 20 gallon tank, heat exchanger and low limit control



## **Specifications**

Model	Input		Output		AFUE%	Continuous GPH	Intermittent DHW	NOx	
Number	MBTU/h	kW	MBTU/h	kW		@ 100°F Rise	Output @ 77°F Rise	Levels ppm	
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	

## **Minimum Clearances from Adjacent Construction**

Annlianaa	Minimum Cle Combustibl	arance from e Material	Suggested Serviceability Clearance	Suggested Serviceability Clearance	
Appliance Surface	Inches	mm	Inches mm		
Back	1	25	18 457		
Left Side	1	25	<b>6</b> 152		
Right Side	1	25	<b>6</b> 152		
Front	1	25			
Top (Alcove Install)	1	25			
Top (Closet Install)*	22	559			
Vent: Concentric, Direct	0	0			
Vent: Category IV	3	76			

\*Minimum closet height 6'9" (206cm)



## View our entire product line at www.Laars.com





800.900.9276 • Fax 800.559.1583 (*Customer Service, Service Advisors*) 20 Industrial Way, Rochester, NH 03867 • 603.335.6300 • Fax 603.335.3355 (*Applications Engineering*) 1869 Sismet Road, Mississauga, Ontario, Canada L4W 1W8 • 905.238.0100 • Fax 905.366.0130

www.Laars.com