

LAARS[®] **NEOTHERM[®]**

Commercial Modulating,
Condensing Boilers



LAARS[®] 
Heating Systems Company
A subsidiary of **BRADFORD WHITE** Corporation

LAARS® NEOTHERM® Hydronic Boiler

NeoTherm is a direct vent, sealed combustion, condensing boiler with 95+% AFUE that modulates with a 5 to 1 turndown. The boiler features an ASME stainless steel heat exchanger, integral boiler pump (size 285 only, sizes 399-500 optional) and low NO_x emissions (10 ppm NO_x), for a package that's easy to use, and easy on the environment.

NeoTherm is built standard with the new LAARS Integrated Control SystemSM that puts the ignition control, temperature control and high limit in one user-friendly device that does it all. The PID control system has outdoor reset and indirect water heater priority (sensors sold separately), frost protection, and loads of other features. It works with other controls to become part of a multiple boiler sequencing control, and works with building automation systems.

Available for natural or propane gas, with a selection of factory-mounted options, and 6 sizes ranging from 285,000 to 850,000 BTU/h, indoor models are suitable for a broad variety of both large residential and small commercial applications.



NeoTherm Features:

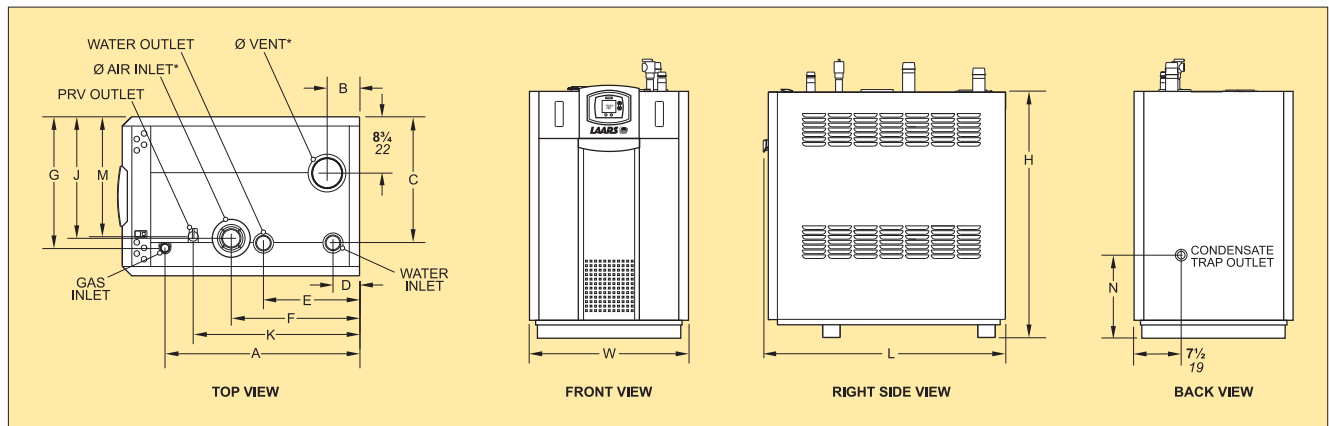
- Floor-standing condensing boiler
- All connections are on top of unit
- Stainless steel heat exchanger
- Rated for alcove and closet installations
- Easy to service
- Will qualify for Energy Rebates
- Low NO_x emissions
- LAARS Integrated Control SystemSM
- Works with BAS

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LAARS® NEOTHERM® HYDRONIC BOILER

Standard Equipment:

- High condensing efficiency
- Modulation down to 20% of full fire (5:1 turndown)
- Sealed combustion chamber
- Pre-mix stainless steel burner
- Low NOx system (10ppm) exceeds the most stringent regulations for air quality
- Horizontal or vertical direct vent
- Horizontal vent and air terminals
- Vent and air pipe lengths of up to 100 equivalent feet (each)
- Built-in condensate trap
- Vent temperature cutoff feature
- Spark ignition system
- 160 psi maximum working pressure
- Stainless steel heat exchanger with welded construction (no gaskets)
- ASME "H" stamp
- Boiler circulator, mounted and wired inside jacket (size 285 only, sizes 399-500 optional)
- 75 psi (517 kPa) ASME rated pressure relief valve
- Temperature & pressure gauge
- Drain valve
- Multiple pump control for boiler pump, system pump and indirect domestic water pump, each with delay
- Electronic PID modulating control
- Large user-interface and display
- Alarm output
- Accepts external (4-20mA) modulation control
- Indirect water heater priority with sensor
- Outdoor reset with sensor
- On/off toggle switch
- Manual reset high limit
- Burner sight glass
- Zero clearance to combustible surfaces
- 10 year limited warranty



Laars® NeoTherm®

	W	L	A	B	C	D	E	F	G	H	J	K	M	N	Air Inlet*	Vent*
Size	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm	in. cm
285	25 64	26 3/4 68	20 1/4 52	7 1/4 19	19 3/4 50	4 1/4 11	11 1/4 9	13 1/2 34	14 36	38 1/4 97	15 38	17 43	18 3/4 48	13 33	4 1/2 11	4 1/2 11
399	25 64	31 1/2 80	25 64	5 1/4 13	19 3/4 50	4 1/4 11	14 3/4 37	18 1/2 47	19 1/4 49	38 1/4 97	16 1/2 42	21 3/4 55	18 3/4 48	13 33	4 1/2 11	4 1/2 11
500	25 64	37 3/4 96	30 1/4 77	5 1/4 13	19 3/4 50	4 1/4 11	15 1/2 38	20 51	20 1/2 52	38 1/4 97	19 48	26 66	18 3/4 48	13 33	4 1/2 11	4 1/2 11
600	25 64	37 3/4 96	29 3/4 76	5 13	19 1/2 50	4 1/4 11	15 38	20 51	3 8	38 1/4 97	19 48	26 66	18 3/4 48	8 1/4 21	4 1/2 11	4 1/2 11
750	25 64	51 130	35 1/2 90	6 15	19 1/2 50	5 1/4 13	19 48	40 1/2 103	3 1/4 8	38 1/4 97	19 48	30 3/4 78	18 3/4 48	8 1/4 21	4 1/2 11	6 1/2 17
850	25 64	55 1/4 130	39 3/4 101	6 15	19 1/2 50	5 1/4 13	19 48	44 3/4 114	3 1/2 9	38 1/4 97	19 48	35 89	18 3/4 48	8 1/4 21	4 1/2 11	6 1/2 17

Size	Thermal Efficiency %	Combustion Efficiency %	AFUE %	Input		Output		Connection Size (NPT)		Weight
				BTU/h	kW	BTU/h	kW	Water	Gas	
285	n/a	94.4	N/A	285,000	83.5	269,040	78.8	1 1/2"	3/4"	276
399	94.0	95.6	95.0	399,000	116.9	375,000	109.9	1 1/2"	3/4"	346
500	95.0	95.0	N/A	500,000	146.5	475,000	139.2	1 1/2"	1"	381
600	95.3	96.0	N/A	600,000	175.8	576,000	167.0	1 1/2"	1"	394
750	96.6	96.4	N/A	750,000	219.8	723,000	208.9	2"	1 1/2"	469
850	95.7	95.4	N/A	850,000	249.1	810,000	236.7	2"	1 1/2"	502

Dimensions are nominal.
*NeoTherm is shipped with adapters for the air and vent.



View our entire product line at www.Laars.com



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