

**LAARS<sup>®</sup>**  
**NEOTHERM<sup>®</sup>**  
Volume Water Heater



# **LAARS® NEOTHERM®**

## **Volume Water Heater**

NeoTherm is a direct vent, sealed combustion, volume water heater with 95+% thermal efficiency that modulates with a 5 to 1 turndown. It features an ASME stainless steel heat exchanger, direct spark ignition system and low NOx emissions (less than 10 ppm), for a package that's easy to use, and easy on the environment.

NeoTherm is built standard with the new LAARS Integrated Control System<sup>SM</sup> that puts the ignition control, temperature control and high limit in one user-friendly device that does it all. The PID control system has frost protection, and loads of other features. It seamlessly integrates with building automation systems and can easily become part of multiple boiler sequencing, including a cascading feature that rotates load across up to eight boilers to optimize boiler life without the need for additional system controls.

Available for natural or propane gas, with a selection of factory-mounted options, 5 sizes ranging from 150,000 to 500,000 BTU/h, make these indoor models suitable for a broad variety of both large residential and small commercial applications.



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

# LAARS® NEOTHERM® VOLUME WATER HEATER



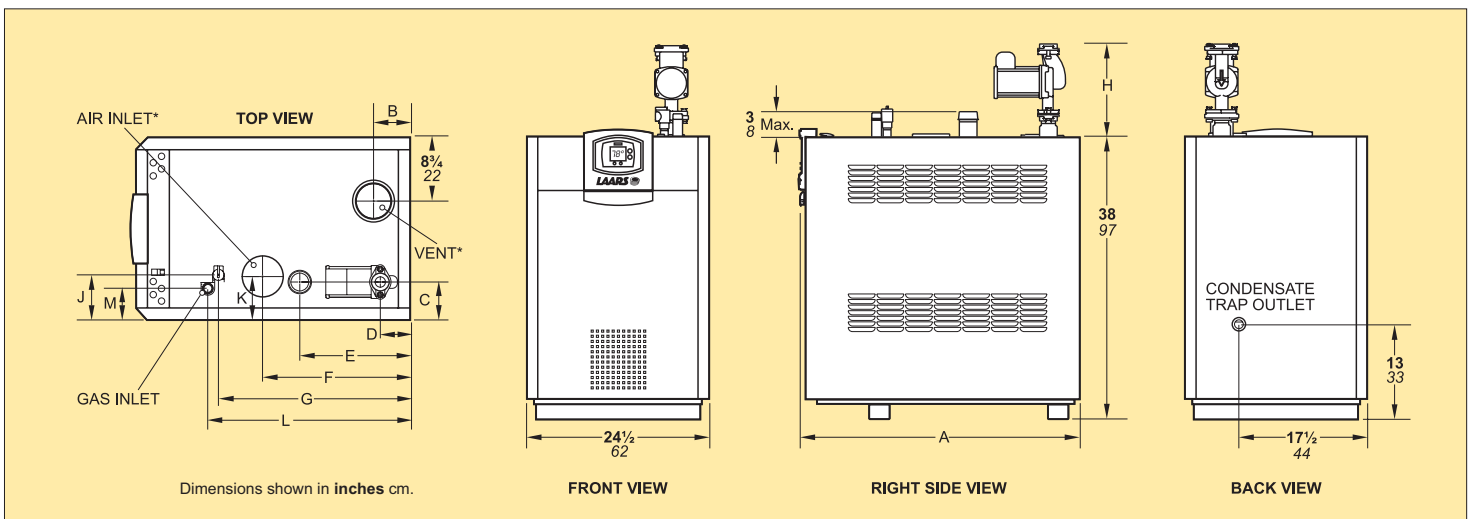
## NeoTherm Features:

- Floor-standing appliance
- All connections are on top of unit
- Stainless steel heat exchanger
- Easy to service
- Low NOx system (10ppm) exceeds the most stringent regulations for air quality
- LAARS Integrated Control System<sup>SM</sup>
- Works with BAS
- Meets AB1953 standard

## Standard Equipment:

- High condensing efficiency
- Modulation down to 20% of full fire (5:1 turndown)
- Sealed combustion chamber
- Pre-mix stainless steel burner
- 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
- Sensor for domestic water tank
- 160 psi maximum working pressure
- Stainless steel heat exchanger with welded construction (no gaskets)
- Optional pumps (sized to model) available for field installation
- ASME "H" stamp
- Water flow switch (399 & 500 only)
- 125 psi (861 kPa) ASME rated pressure relief valve
- Temperature & pressure gauge
- Drain valve
- Electronic PID modulating control stages up to eight boilers
- Large user-interface and display
- Alarm output
- Accepts external (4-20mA or 0-10V) modulation signal
- On/off toggle switch
- Manual reset high limit
- Burner sight glass
- Zero clearance to combustible surfaces
- 5 year limited warranty

Size	Input		Output		Thermal Efficiency %
	BTU/h	kW	BTU/h	kW	
NTV 150	150,000	44.0	143,550	42	95.7
NTV 199	199,000	58.3	193,030	57	97.0
NTV 285	285,000	83.5	272,460	80	95.6
NTV 399	399,000	117.0	374,237	113	96.3
NTV 500	500,000	147.0	483,500	142	96.7



## Laars® NeoTherm®

Size	A		B		C		D		E		F		G		H		J		K		L		M		Weight lbs	Connections	
	in	cm	in	cm	in	cm	in	cm	in	cm	in	cm	in	cm	in	cm	in	cm	in	cm	in	cm	in	cm		Gas	Water
NTV 150	18 1/2	47.2	5	12.7	5 3/4	14.7	3	7.9	10 3/4	27.2	7 1/2	19.3	7 1/4	18.5	12 1/4	31.0	9 1/2	24.1	5 1/4	13.5	13 1/4	34	10 1/2	27	201	1/2 NPT	1 1/4 NPT
NTV 199	26	65.5	5	12.7	5 3/4	14.7	3	7.9	17 3/4	45.2	7 1/2	19.3	11 1/2	29.5	9 3/4	24.9	9	23.1	5 1/4	13.5	20 1/4	51	10 1/2	27	246	1/2 NPT	1 1/4 NPT
NTV 285	26	65.5	7	17.8	5	13.0	6	15.5	11	28.2	13 1/4	33.8	17	42.9	12 1/2	31.8	6	15.2	9 3/4	24.6	20 1/4	51.4	10 1/2	26.7	276	3/4 NPT	2 NPT
NTV 399	31	78.0	5	12.7	5	13.0	4 1/4	10.7	14 1/2	37.1	18 1/2	47.0	21 1/2	54.9	12 1/2	31.8	6	15.2	8 1/4	21.1	25	63.5	5 1/4	13.3	346	3/4 NPT	2 NPT
NTV 500	37	93.7	5	12.7	5	13.0	4 1/4	10.7	15	38.1	20	50.8	26	65.8	12 1/2	31.8	6	15.2	5 3/4	14.7	27 1/4	69.2	4	10.2	381	1 NPT	2 NPT



View our entire product line at [www.Laars.com](http://www.Laars.com)



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