

LAARS® NEOTHERM®

High Efficiency
Modulating Volume
Water Heaters



PACKED WITH FEATURES

- *Large Color Touch Screen*
- *Less Than 10ppm NOx*
- *Up to 97% Thermal Efficiency*
- *8 Models 150 to 850 MBH*
- *Vent up to 100 feet, horizontal or vertical*
- *Meets Low Lead Requirements*

LAARS[®] NEOTHERM[®]

Volume Water Heater

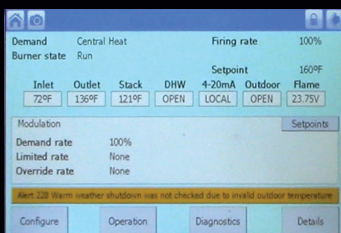
NeoTherm is a direct vent, sealed combustion, volume water heater with thermal efficiency as high as 97% that modulates with a 5 to 1 turndown. It features an ASME stainless steel heat exchanger, direct spark ignition system, low NOx emissions (less than 10ppm) and meets low lead installation requirements, for a package that's easy to use, and easy on the environment.

NeoTherm is built standard with the upgraded LAARS Integrated Control System that has an easy to use, large color touch screen interface. Ignition control, temperature control and high limit are combined in one user-friendly device that does it all with functions clearly spelled out in English rather than complicated codes. The PID control 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 NeoTherms to optimize boiler life without the need for additional system controls.



Available for natural or propane gas, with a selection of factory-mounted options, 8 sizes ranging from 150 to 850 MBH, make these indoor models suitable for a broad variety of residential and commercial applications.

NEOTHERM INTEGRATED CONTROLS FEATURES:



- Large, easy to navigate color touch screen
- Easy to use menus for login, quick start, advanced setup, tests and diagnostics
- Integrated PID temperature and ignition control
- Accepts 4-10mA or 0-10VDC input for modulation
- Lead Lag with up to 8 other NeoTherm volume water heaters
- Quick start feature for easy one boiler setups
- Complete diagnostics for analog and digital inputs
- Test feature allows for forced min and max firing
- Display holds, alerts and errors in clear text form
- Password protected parameters for installer use
- Modbus capable

LAARS® NEOTHERM® VOLUME WATER HEATER



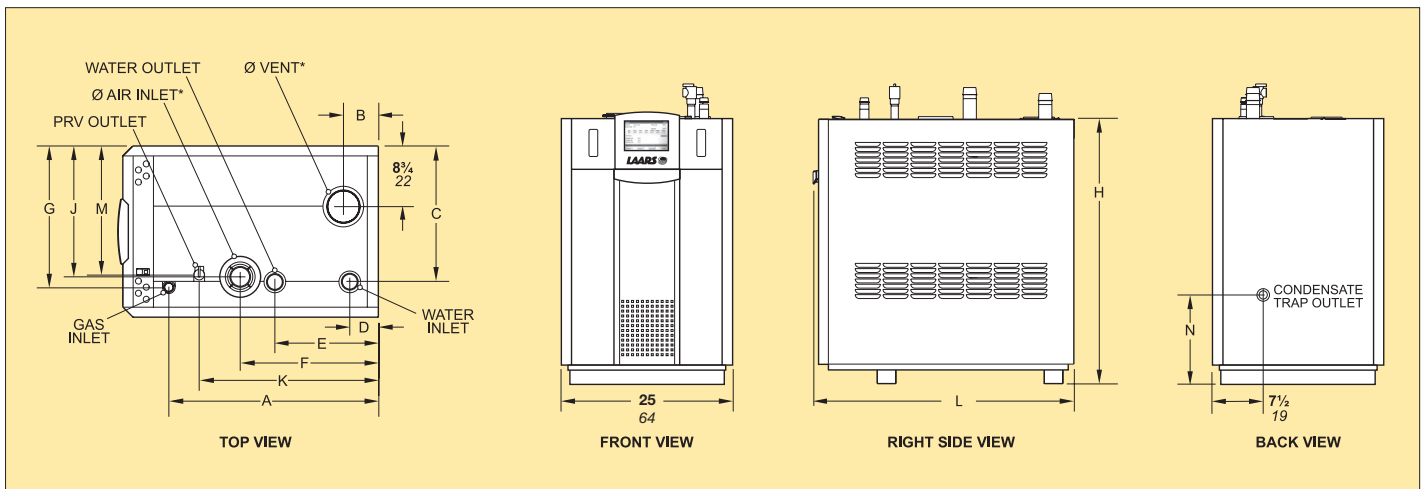
NeoTherm Features:

- 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 SystemSM
- Integrates with Building Automation Systems
- Meets AB1953 Low Lead standard
- Integrates with Building Automation Systems

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 color touch screen
- Alarm output
- Accepts external 4-20mA (0-10V optional) modulation signal
- On/off toggle switch
- Manual reset high limit
- Burner sight glass
- Zero clearance to combustible surfaces for alcove and closet installations
- 5 year limited warranty

Size	Input		Output		Thermal Efficiency %
	MBH	kW	BTU/h	kW	
NTV 150	150	43.9	142.5	42.8	95
NTV 199	199	58.3	193.0	56.6	97
NTV 285	285	83.5	270.8	79.3	95
NTV 399	399	116.8	383.0	112.3	96
NTV 500	500	146.4	480.0	141.1	96
NTV 600	600	175.7	582	170.5	97
NTV 750	750	219.6	705	206.7	94
NTV 850	850	248.9	816	239.1	96



Laars® NeoTherm®

Size	A		B		C		D		E		F		G		H		J		K		L		M		N		Shipping Weight		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	in	cm	lbs	kg	Gas	Water
NTV 150	13 ¹ / ₄	34	5 ¹ / ₄	14	19	48	3 ¹ / ₄	8	10 ³ / ₄	28	7 ¹ / ₂	19	14 ¹ / ₄	36	38 ¹ / ₄	97	19 ¹ / ₂	49	7 ¹ / ₂	19	19 ¹ / ₂	49	15 ¹ / ₄	39	13	33	228	103	1/2 NPT	1 1/4 NPT
NTV 199	20 ¹ / ₂	52	5 ¹ / ₄	14	19	48	3 ¹ / ₄	8	17 ³ / ₄	45	7 ¹ / ₂	19	14 ¹ / ₄	36	38 ¹ / ₄	97	19 ¹ / ₂	49	11 ³ / ₄	30	26 ³ / ₄	68	15 ¹ / ₄	39	13	33	270	123	1/2 NPT	1 1/4 NPT
NTV 285	20 ¹ / ₄	52	7 ¹ / ₄	19	19 ³ / ₄	50	4 ¹ / ₄	16	11 ¹ / ₄	29	13 ¹ / ₂	34	14	36	38 ¹ / ₄	97	15	38	17	43	26 ³ / ₄	68	18 ³ / ₄	48	13	33	299	136	3/4 NPT	2 NPT
NTV 399	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	31 ¹ / ₂	80	18 ³ / ₄	48	13	33	364	165	3/4 NPT	2 NPT
NTV 500	30 ¹ / ₄	77	5 ¹ / ₄	13	19 ³ / ₄	50	4 ¹ / ₄	11	15 ¹ / ₄	38	20	51	20 ¹ / ₂	52	38 ¹ / ₄	97	19	48	26	66	37 ³ / ₄	96	18 ³ / ₄	48	13	33	419	190	1 NPT	2 NPT
NTV 600	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	37 ³ / ₄	96	18 ³ / ₄	48	8 ¹ / ₄	21	426	193	1 NPT	2 NPT
NTV 750	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	51	130	18 ³ / ₄	48	8 ¹ / ₄	21	481	218	1 1/2 NPT	2 NPT
NTV 850	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	55 ¹ / ₄	130	18 ³ / ₄	48	8 ¹ / ₄	21	503	228	1 1/2 NPT	2 NPT



View our entire product line at www.Laars.com



LAARS[®] 
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