



LAARS[®]
MIGHTY THERM[®] 2
200-400 SERIES

**Residential and Light
Commercial Volume Water Heater/Boiler
Water Heater**

PACKED WITH FEATURES

- 85% efficiency
- Low NOx
- Venting Options
- Easy install
- Outdoor certified

COMFORT • RELIABILITY • PEACE OF MIND



Since our beginning as Laars Engineering in 1948, Laars has embodied innovation and advancement in heating technology. We have built upon our technology over the past seventy plus years to ensure Laars products meet the demands of today's discerning customer.

Laars' advanced commercial heating technology ensures that every installation exceeds your customers' expectations for efficiency, reliability and performance for years to come. Laars Heating Systems Company is a leading designer and manufacturer of high efficiency boilers, water heaters, pool heaters, tanks and accessories for commercial heating applications. Our commercial boiler products are developed & manufactured in Rochester, NH with the mechanical contractor, engineer and building owner in mind.

Laars stands behind each of its products with stringent quality standards, such as requiring each unit to be live-fired before it's packaged, and a service and support team that places the customer and their needs first – every time.

LAARS[®] MIGHTY THERM[®] 2



The Laars MightyTherm2 200-400 Series is a direct vent, non-condensing boiler or volume water heater. The MightyTherm2's modular construction and simple yet technologically advanced design make this unit the perfect solution for compact light commercial or large residential spaces. Easy installation, set-up and access for maintenance are a winning combination!



Environmentally Friendly

- 85% efficiency
- Low NOx emission (<10ppm)
- Meets NSF/ANSI-372 Low Lead Content Certification (MT2V)



Flexible Installation

- Top or rear vent options
- Indoor or outdoor applications
- Natural or propane gas
- Selection of factory-mounted options
- Volume Water Heater - 200, 300 or 400 MBH; Boiler - 400 MBH



Advanced control programming including auto set-point



Easy to use, install & maintain modular design

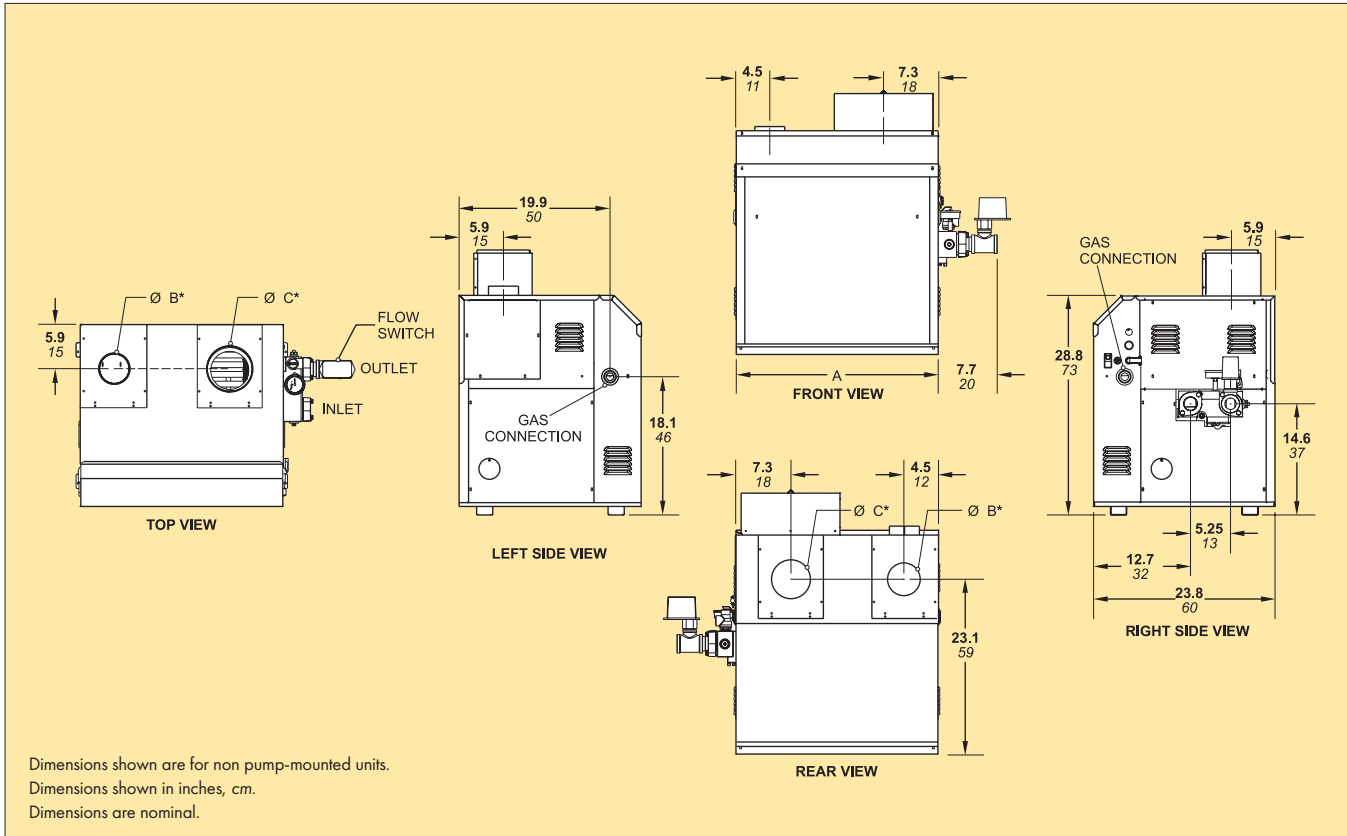
- Easy access burner trays
- Gas train & blower assembly are separated
- Manual high limit reset



Standard Features:

- Hot surface ignition
- On/off firing (2-stage optional)
- ASME 160 psi working pressure heat exchanger
- Flanged water connections
- Glass-lined headers with external header gaskets
- Stainless steel burners with removable burner tray
- Built-in fan for Cat I and III systems

DIMENSIONS



DIMENSIONS

Size	A		Air Conn. B*		Vent Conn. C*		Horiz Vent Pipe	
	in.	cm	in.	cm	in.	cm	in.	cm
200	20½	52	4	10	5	13	4	10
300	26½	67	4	10	6	15	5	13
400	33½	85	6	15	7	18	6	15

Gas Conn. Size Inches	Water Conn. Size Inches	Shipping Weight	
		lbs.	kg
¾ NPT	1½ NPT	270	123
¾ NPT	1½ NPT	300	136
¾ NPT	1½ NPT	330	150



*Air and vent connections may be on top or back of the Mighty Therm 2, and are field convertible.

SIZING DATA

SIZE	Input MT2H		Output MT2H		Input MT2V		Output MT2V	
	MBH	kW	MBH	kW	MT2H	kW	MBH	kW
200	—	—	—	—	199.9	58.6	169.9	49.8
300	—	—	—	—	300.0	87.9	225.0	74.7
400	399.0	116.9	340.0	99.6	400.0	117.2	339.9	99.6

- NOTES:**
1. Input and output must be derated 4% per 1000 feet above sea level when installed above 2000 feet altitude.
 2. Dimensions are nominal.
 3. For other boiler ratings:
 Boiler Horsepower: HP = Output/33,475
 Radiation Surface: EDR sq. ft. = Output/150
 4. Add 20 lbs. (9kg) to shipping weight for pump-mounted units.

WATER FLOW REQUIREMENTS

Temp Rise:	20°F		11°C		25°F		14°C		30°F		17°C		35°F		19°C	
Size	Flow gpm	H/L feet	Flow lpm	H/L m	Flow gpm	H/L feet	Flow lpm	H/L m	Flow gpm	H/L feet	Flow lpm	H/L m	Flow gpm	H/L feet	Flow lpm	H/L m
MT2H400	34	6.3	129	1.9	27	4.0	102	1.2	23	2.8	87	0.9	19	2.1	72	0.6

	HARD WATER						NORMAL WATER						SOFT WATER					
Size	Flow gpm	H/L feet	Temp Rise °F	Flow lpm	H/L m	Temp Rise °C	Flow gpm	H/L feet	Temp Rise °F	Flow lpm	H/L m	Temp Rise °C	Flow gpm	H/L feet	Temp Rise °F	Flow lpm	H/L m	Temp Rise °C
MT2V200	45	7.3	8	170	2.2	4	35	4.4	10	133	1.3	6	23	1.9	15	87	0.6	8
MT2V300	45	7.4	11	170	2.3	6	35	4.5	15	133	1.4	8	23	2.0	22	87	0.6	12
MT2V400	45	7.4	15	170	2.3	8	35	4.5	19	133	1.4	11	23	2.0	30	87	0.6	17

NOTE: gpm = gallons per minute, lpm = liters per minute

RECOVERY DATA

Size	40°F GPH	22°C L/h	50°F GPH	28°C L/h	60°F GPH	33°C L/h	70°F GPH	39°C L/h	80°F GPH	44°C L/h	90°F GPH	50°C L/h	100°F GPH	56°C L/h	120°F GPH	67°C L/h	140°F GPH	78°C L/h
200	510	1928	408	1542	340	1285	291	1100	255	964	227	858	204	771	170	643	146	552
300	765	2892	612	2313	510	1928	437	1652	383	1448	340	1285	306	1157	255	964	219	828
400	1020	3856	816	3084	680	2570	583	2204	510	1928	453	1712	408	1542	340	1285	291	1100

NOTE: GPH = gallons per hour, L/h = Liters per hour

MINIMUM CLEARANCES FROM ADJACENT CONSTRUCTION

Appliance Surface	Required Clearance from Combustible Material		Suggested Service Access Clearance	
	inches	cm	inches	cm
Left Side	1	2.5	24	61.0
Right Side	1	2.5	24	61.0
Top	1	2.5	12	30.5
Back*	1	2.5	12	30.5
Front	1	2.5	36	91.4
Vertical Vent** (Category 1)	6	15.2		
Horizontal Vent (Category 3)	per UL1738 venting system supplier's instructions			

* When vent and/or combustion air connects to the back, recommended clearance is 36" 91 cm.

** 1" when b-vent is used.



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