



# **LAARS<sup>®</sup> MIGHTY THERM<sup>®</sup> 2**

- 85% Thermal Efficiency
- Straight Forward, Easy-to-use Controls
- 500-2000 MBH Sizes
- Low NOx - 10 ppm
- Indoor/Outdoor Construction

***The Ideal Replacement for  
Boilers and Water Heaters***

**LAARS<sup>®</sup>**   
**Heating Systems Company**

# **MIGHTY THERM<sup>®</sup>2**

## **GAS BOILERS OR VOLUME WATER HEATERS**

For over 70 years, the LAARS brand has stood for quality, reliability, and innovation in heating system design. Mighty Therm2 is part of that tradition with an outstanding line of commercial boilers and volume water heaters designed for today's most demanding indoor and outdoor environments. The Mighty Therm2 line of fan-assisted, modular boilers and water heaters from Laars ranks among the industry's most versatile commercial systems for hydronic and hot water applications. Available in 7 sizes from 500 to 2000 MBH, Mighty Therm2 boilers and water heaters run reliably on natural or LP gas and deliver efficiency levels up to 85%. The systems are also among the "greenest" in the industry with NOx emissions below 10 ppm.



### **Environmentally Sound**

- 85% thermal efficiency
- Low NOx (<10 ppm)
- Low Lead certification (MT2V)



### **Durable Construction**

- Modular construction with removable and separated burner trays, gas train and blower assembly
- Glass-lined cast iron with bronze trim for water heaters
- Lightweight insulation
- Finned-tube heat exchanger of copper (boilers) or cupronickel (water heaters)
- Heat exchanger end walls that accommodate thermal expansion



### **Flexible Venting**

- Category III up to 50 feet with 3 elbows and no additional fans
- Category I with standard B-vent
- Combustion air can be taken from the room or ducted to the unit from the outside



### **Easy Installation and Maintenance**

- Gas connections left or right to fit your installation
- Heat exchanger is removable from the top, back or front
- Washable air filter
- Ignitor access via a service panel
- Easy-to-service burner assembly



### **Standard Features**

- 2-stage firing
- Fan-assisted combustion system
- External staging control connections
- Factory-mounted options



Field proven ASME heat exchanger with copper or cupronickel finned tubes and glass lined cast iron headers.

MIGHTY THERM2 SIZING DATA

Indoor Model	Input MBH	Input kW	Output MBH	Output kW	Boiler (MT2H) Combustion Efficiency (%)	Boiler (MT2H) Thermal Efficiency (%)	Water Heater (MT2V) Thermal Efficiency (%)	Gas Connection inches	Water Connection inches	Approx. Shipping Weight* lbs. kg	
500	500	147	425	125	85.0	85.0	85	1 1/4	2	630	289
750	750	220	638	187	85.0	85.0	85	1 1/4	2	725	329
1000	999	293	849	249	85.0	85.0	85	1 1/2	2 1/2	820	372
1250	1,250	366	1,064	312	85.1	85.2	85	2	2 1/2	915	415
1500	1,500	440	1,277	371	85.1	85.2	85	2	2 1/2	1010	458
1750	1,750	513	1,489	436	85.1	85.2	85	2	2 1/2	1105	501
MT2H 2000	1,999	586	1,701	498	85.1	85.2	85	2	2 1/2	1200	544
MT2V 2000	2,000	586	1,701	498	85.1	85.2	85	2	2 1/2	1200	544

**NOTE:** 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 =  $\frac{\text{Output}}{33,475}$  Radiation Surface: EDR sq. ft. =  $\frac{\text{Output}}{150}$

\*Add approximately 55 lbs. (25 kg) for pump-mounted units.

MT2H (BOILER) Temperature Rises in Degrees

Size	20°F		11°C		25°F		14°C		30°F		17°C		35°F		19°C	
	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
500	43	1.7	161	0.5	34	1.1	129	0.3	28	0.9	107	0.3	24	0.7	92	0.2
750	64	3.3	242	1.0	51	2.3	193	0.7	43	1.7	161	0.5	36	1.2	138	0.4
1000	85	5.0	321	1.5	68	3.6	257	1.1	57	3.1	214	0.9	49	2.2	184	0.7
1250	106	8.1	402	2.5	85	6.1	322	1.9	71	4.7	268	1.4	61	3.4	230	1.0
1500	128	10.0	483	3.0	102	7.2	386	2.2	85	5.5	322	1.7	73	4.2	276	1.3
1750	N/R	N/R	N/R	N/R	119	10.5	451	3.2	99	8.4	375	2.6	85	5.8	322	1.8
2000	N/R	N/R	N/R	N/R	136	12.5	515	3.8	113	10.4	429	3.2	97	8.3	368	2.5

MT2V (WATER HEATER)

Size	HARD WATER						NORMAL WATER						SOFT WATER					
	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
500	90	3.5	9	341	1.1	5	68	2.3	13	257	0.7	7	45	1.8	19	170	0.5	10
750	90	6.0	14	341	1.8	8	68	3.0	19	257	0.9	10	45	2.1	28	170	0.6	16
1000	90	6.1	19	341	1.9	10	68	3.6	25	257	1.1	14	45	2.3	38	170	0.7	21
1250	90	6.3	24	341	1.9	13	68	3.8	31	257	1.2	17	68	3.8	31	257	1.2	17
1500	90	6.5	28	341	2.0	16	68	3.9	38	257	1.2	21	68	3.9	38	257	1.2	21
1750	90	6.7	33	341	2.0	18	68	4.0	44	257	1.2	24	68	4.0	44	257	1.2	24
2000	112	10.0	30	424	3.0	17	112	10.0	30	424	3.0	17	112	10.0	30	424	3.0	17

**NOTE:** Headloss (H/L) shown is for the Mighty Therm2 heat exchanger only.

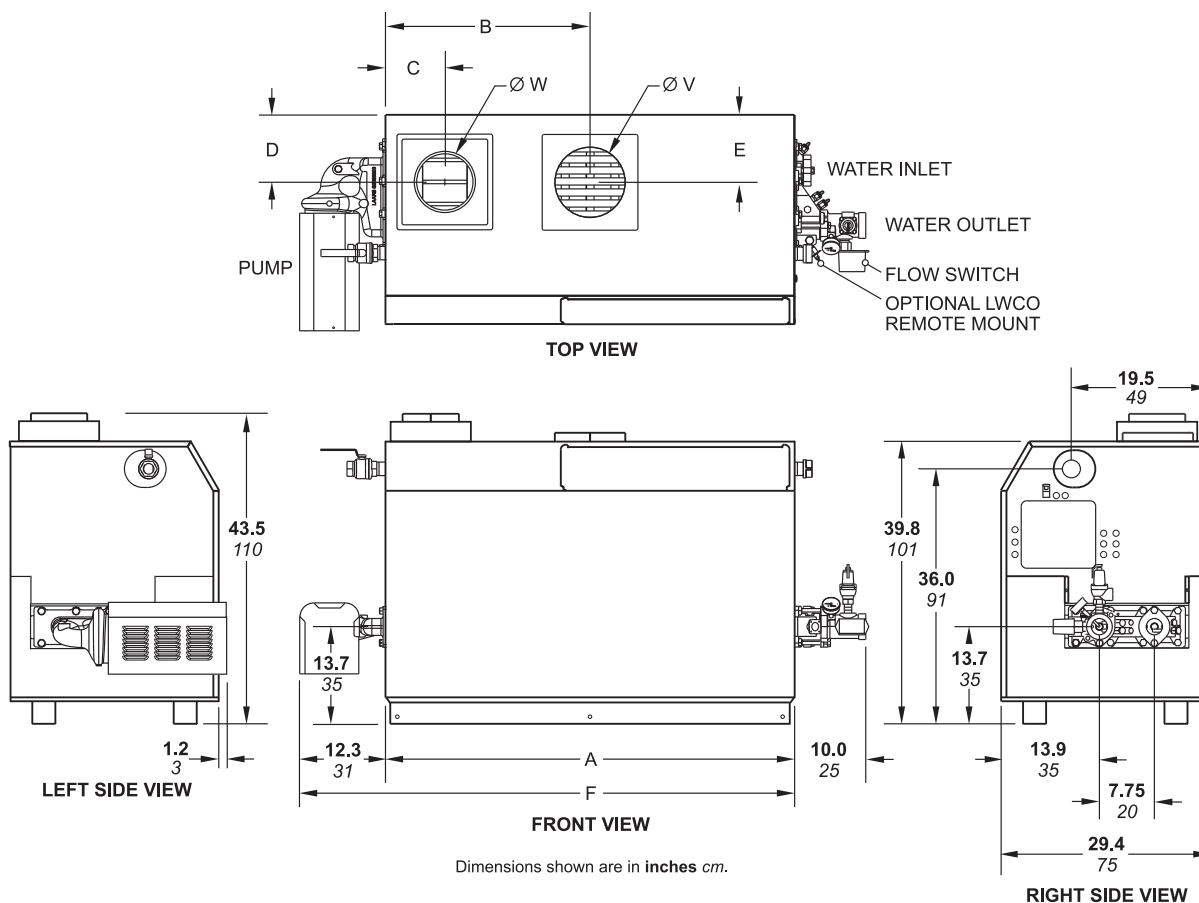
RECOVERY DATA Temperature Rises in Degrees

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
500	1276	4821	1020	3857	850	3214	729	2755	638	2411	567	2143	510	1929	425	1607	364	1378
750	1915	7238	1532	5790	1277	4825	1094	4136	957	3619	851	3217	766	2895	638	2413	547	2068
1000	2548	9632	2038	7705	1699	6421	1456	5504	1274	4816	1132	4281	1019	3853	849	3211	728	2752
1250	3189	12054	2551	9643	2126	8036	1822	6888	1594	6027	1417	5357	1276	4821	1063	4018	911	3444
1500	3827	14464	3061	11571	2551	9643	2187	8265	1913	7232	1701	6429	1531	5786	1276	4821	1093	4133
1750	4464	16875	3571	13500	2976	11250	2551	9643	2232	8438	1984	7500	1786	6750	1488	5625	1276	4821
2000	5099	19274	4079	15419	3399	12850	2914	11014	2550	9637	2266	8566	2040	7710	1700	6425	1457	5507

**NOTE:** gph = gallons per hour, L/h = Liters per hour.

ELECTRICAL DATA

Model	Boiler/Heater			Pump Delay Connection Rating			Blower(s)
MT2H, MT2V	Volts	Phase	Amps	Volts	Phase	Amps	
500-700	120	Single	15	120	Single	15A/1hp	Included in boiler circuit
1000-2000			20				



## DIMENSIONS

Size	A		B		C		D		E		Air Conn. W		Vent Conn. V	
500	33 <sup>3</sup> / <sub>4</sub>	85	16 <sup>3</sup> / <sub>4</sub>	43	6 <sup>1</sup> / <sub>2</sub>		10	25	8	20	6	15	8	20
750	45 <sup>3</sup> / <sub>4</sub>	116	22 <sup>3</sup> / <sub>4</sub>	53	6 <sup>1</sup> / <sub>2</sub>	17	10	25	9 <sup>1</sup> / <sub>2</sub>	24	8	20	10	25
1000	57 <sup>3</sup> / <sub>4</sub>	147	28 <sup>3</sup> / <sub>4</sub>	73	6 <sup>1</sup> / <sub>2</sub>		10	25	9 <sup>1</sup> / <sub>2</sub>	24	8	20	10	25
1250	68 <sup>1</sup> / <sub>4</sub>	173	34	87	10 <sup>1</sup> / <sub>4</sub>	26	10	25	9	23	12	30	12	30
1500	78 <sup>3</sup> / <sub>4</sub>	200	39 <sup>1</sup> / <sub>2</sub>	100	10 <sup>1</sup> / <sub>4</sub>		10	25	9	23	12	30	12	30
1750	89 <sup>1</sup> / <sub>4</sub>	227	44 <sup>3</sup> / <sub>4</sub>	113	10 <sup>1</sup> / <sub>4</sub>	26	10	25	9	23	12	30	14	36
2000	99 <sup>3</sup> / <sub>4</sub>	253	49 <sup>3</sup> / <sub>4</sub>	127	10 <sup>1</sup> / <sub>4</sub>		10	25	9	23	12	30	14	36

**NOTE:** Dimensions shown in inches cm.



**LAARS**  
Heating Systems Company

Customer Service and Product Support: 800.900.9276 • Fax 800.559.1583

Headquarters: 20 Industrial Way, Rochester, NH 03867 • 603.335.6300 • Fax 603.335.3355

9 Brigden Gate, Halton Hills, Ontario, Canada, L7G 0A3 • 905.203.0600 • Fax 905.636.0666

[www.LAARS.com](http://www.LAARS.com)