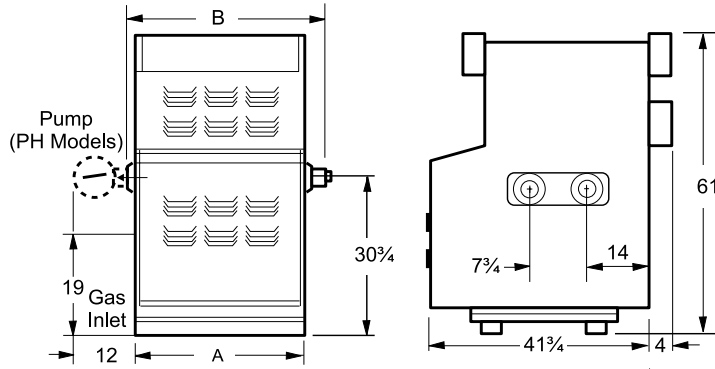


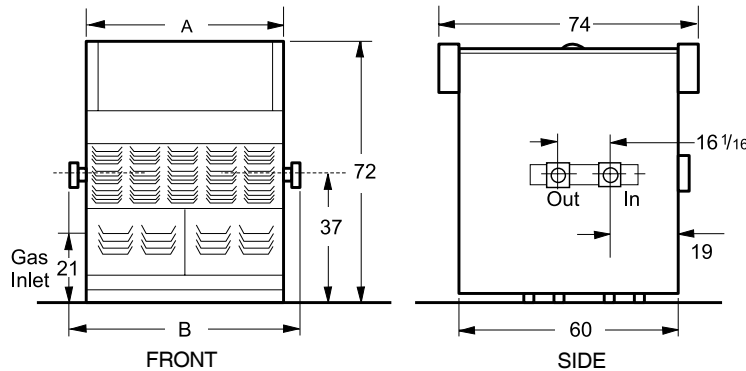
# MIGHTY THERM®

# Hydronic Boilers

Outdoor  
Sizes 500-1825



Outdoor  
Sizes 2200-4500



HH	Hydronic Heating Boiler
PH	Hydronic Heating Boiler with mounted pump

Outdoor Sizes 500,000 - 4,500,000 BTU/h

Submittal Data **LAARS** Heating Systems

## Standard Equipment

- ASME 160 lb. working pressure heat exchanger
- 24V control system
- Operating gas valve/pressure regulator
- Water flow sensing device
- Removable burner tray (500-1825)
- Built-in draft hood
- Glasslined cast iron headers
- Non-combustible base (500-1825)
- Covered control box
- Redundant safety gas valve
- Operating control
- Manual reset high limit
- Automatic reset high limit (2800-4500)
- Manual pilot valve
- Pilot gas regulator
- Manual shut-off valve
- Stainless steel burners
- External water side gaskets
- Flanged connection
- High gas pressure switch (2800-4500)
- Pressure relief valve (75 PSI)
- 115/24V transformer
- Terminal strip
- Temperature/pressure gauge
- On/off toggle switch
- 2 amp fuse
- Power on light

## Dimensional Data

Outdoor Models HH/PH*	Input <sup>1,4</sup> BTU/h x1000	Output <sup>1,4</sup> BTU/h x1000	Rating BTU/h x1000	Gas Connection Size inches <sup>2</sup>		Water Conn. Size in <sup>2</sup>	Dimensions inches <sup>2,4</sup>				Ship Weight lbs <sup>3</sup>
				Natural <sup>5</sup>	LP <sup>5</sup>		A	B	C	V	
500	500	410	357	1	3/4	2	33 <sup>3</sup> / <sub>4</sub>	45 <sup>1</sup> / <sub>4</sub>	—	—	800
600	600	492	428	1	3/4	2	38 <sup>3</sup> / <sub>4</sub>	50 <sup>1</sup> / <sub>4</sub>	—	—	910
715	715	586	510	1	3/4	2	44 <sup>1</sup> / <sub>4</sub>	55 <sup>3</sup> / <sub>4</sub>	—	—	995
850	850	697	606	1	3/4	2	50 <sup>3</sup> / <sub>4</sub>	62 <sup>1</sup> / <sub>4</sub>	—	—	1030
1010	1010	828	720	1 1/4	1	2 1/2	58	69 <sup>1</sup> / <sub>2</sub>	—	—	1180
1200	1200	984	856	1 1/4	1	2 1/2	66 <sup>1</sup> / <sub>4</sub>	77 <sup>3</sup> / <sub>4</sub>	—	—	1330
1430	1430	1173	1020	1 1/4	1 1/4	2 1/2	76	87 <sup>1</sup> / <sub>2</sub>	—	—	1490
1670	1670	1370	1191	1 1/2	1 1/4	2 1/2	85 <sup>1</sup> / <sub>2</sub>	97	—	—	1600
1825	1825	1497	1302	1 1/2	1 1/4	2 1/2	92 <sup>1</sup> / <sub>4</sub>	103 <sup>3</sup> / <sub>4</sub>	—	—	1660
2200	2205	1786	1553	1 1/2 /2	1 1/2	4	65 <sup>1</sup> / <sub>2</sub>	83	—	—	2320
2800	2745	2223	1933	1 1/2 /2	1 1/2	4	78	95 <sup>1</sup> / <sub>2</sub>	—	—	2600
3200	3150	2552	2219	2	1 1/2	4	88	105 <sup>1</sup> / <sub>2</sub>	—	—	2750
3600	3645	2952	2567	2 /2 1/2	2	4	100 <sup>1</sup> / <sub>2</sub>	118	—	—	3175
4000	4050	3281	2853	2 1/2	2	4	110 <sup>1</sup> / <sub>2</sub>	128	—	—	3380
4500	4500	3645	3170	2 1/2	2	4	123	140 <sup>1</sup> / <sub>2</sub>	—	—	3790

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. Units with pumps add 55 lbs. for sizes 500-1825. 4. For other boiler ratings:

$$\text{Boiler Horsepower: HP} = \frac{\text{Output}}{33,475}$$

$$\text{Radiation Surface: EDR sq. ft.} = \frac{\text{Output}}{150}$$

$$\text{IBR sq. ft.} = \frac{\text{Net IBR Rating}}{150}$$

5. When two gas connection sizes are shown, the smaller applies to the standard gas train, while the larger applies to optional trains, such as four stage or motorized gas valves. Consult factory for exact specifications.

\*PH Models (500-1825) only.

**Rate of  
Flow and  
Pressure  
Drop**

Size	Design Temperature Rise Across Boiler							
	20°F		25°F		30°F		35°F	
	Hd. Loss		Hd. Loss		Hd. Loss		Hd. Loss	
	GPM	Ft	GPM	Ft	GPM	Ft	GPM	Ft
500	41	1.7	33	1.1	27	0.9	23	0.7
600	49	2.3	39	1.6	32	1.1	28	0.9
715	58	3.2	47	2.2	39	1.6	33	1.1
850	69	3.6	55	3.1	46	2.2	39	1.6
1010	82	5.0	66	3.6	55	3.1	47	2.2
1200	98	6.9	78	4.9	65	3.6	56	3.1
1430	117	9.5	93	6.7	78	5.0	67	3.7
1670	*	*	109	9.1	91	6.8	78	5.0
1825	*	*	119	10.4	99	8.3	85	5.7
2200-1P	179	4.8	143	3.6	119	2.7	102	2.1
2P	179	13.0	143	8.5	119	6.1	102	4.5
2800-1P	222	7.4	178	5.0	148	4.0	127	3.3
2P	222	19.5	178	13.2	148	9.3	127	7.0
3200-1P	255	10.2	204	6.8	170	5.0	146	4.1
2P	*	*	204	18.1	170	12.0	146	9.2
3600-1P	295	14.2	236	9.3	197	6.3	169	5.1
2P	*	*	*	*	197	17.8	169	12.7
4000-1P	328	16.6	262	10.8	219	7.7	187	5.8
2P	*	*	*	*	219	21.5	187	15.9
4500-1P	365	21.3	292	14.3	243	9.9	208	7.0
2P	*	*	*	*	*	*	208	19.8

\*Not recommended. Consult factory.

**NOTES:** Sizes 2200 to 4500; 1P designates single-pass heat exchanger, 2P designates two-pass heat exchanger.

**Motor  
Electrical  
Data**

Factory Provided Pumps - Model PH Boilers			
Sizes	Power (HP)	Voltage/Phase	Current (Amps)
500-850	1/3	115/1	5.4
1010-1200	1/2	115/1	5.8
1430-1825	3/4	115/1	8.8

**Minimum  
Clearances  
from  
Adjacent  
Construction**

Recommended Minimum Clearance From	Sizes 500-1825	Sizes 2200-4500
	inches	inches
Top	----	----
Water Connection Side	24	24
Opposite Side	24	24
Front	Open	Open
Rear	24	24
Vent	----	----

**NOTE:** Base for combustible flooring is standard on sizes 500-1825. Sizes 2200-4500 require installation on non-combustible floors. At least 48" clearance should be provided in front of the boiler for maintenance accessibility (removal of burners, etc.).



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