



**Product Submittal for Raytherm® - Type H
Hydronic Heating Boilers Commercial
Models 514-824**

Date: _____ Job: _____ Location: _____

Equipment Tags: _____ Engineer: _____ Contractor: _____

Model: _____ Notes: _____

Prepared by: _____

Gas Type: Natural Gas Propane

Efficient - 82% thermal efficiency

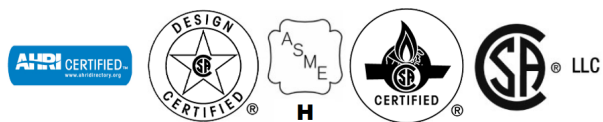
Thermal shock proof - limited 25-year thermal shock warranty

Lightweight - a floor load of 70 lbs./sq. ft. or less

Dependable - the simple atmospheric design provides a low cost and long life solution

Low water operating temperature - operates with water temperature as low as 105°F without condensing

Proudly assembled in USA





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Hydronic Heating Boilers Commercial**

Job: _____

Features and Options

Heat Exchanger

- ASME H-stamped; 160 PSIG MAWP
- National Board registered
- Headers
 - Glass-lined cast iron (standard)
 - A-1 Bronze (optional)
- Copper finned tubing
- ASME steel tube sheet
- Silicone O-rings
- ASME Pressure relief valve
 - 60 PSIG (standard)
 - _____ PSIG (optional)
- T&P gauge
- Water connections
 - Left-hand (standard)
 - A-6 Right-hand (optional)
- Pump, rear-mounted, 1/2 HP (optional)
 - 4.25" Impeller
 - 4.7" Impeller

Controls

- 120V, 60Hz, 1 Ph power supply
- 120/24V transformer
- 100% Pilot shut-off/lockout
- Electronic, intermittent ignition (IID) pilot
- High limit control, manual-reset
- On/off switch
- Flow switch
- Economaster II pump time delay

Gas Train

- Manual main gas shut-off valve
- Main gas pressure regulator
- Redundant safety shut-off valve
- Control valve
- Firing mode
 - H1 Mechanical modulation, 150-210°F
 - H3 Two-stage firing
 - H4 On/off
 - H5 Mechanical modulation, 110-170°F
 - H9 Four-stage firing
- Fuel
 - Natural gas
 - Propane (min. grade HD-5)
- Design certified ANSI Z21.13/CSA 4.9

Construction

- CSA Low lead certified ≤ .25% Lead
- Front controls
- Stainless steel burners
- Polytuf powder-coat finish
- Vent selection
 - D-1 Indoor power vent, Mtd
 - D-2 Indoor power vent, loose
 - D-10 Indoor draft diverter
 - D-11 Outdoor stackless top
- Base (optional)
 - J-1 Combustible floor shield

Temperature Controllers

Note: H1 and H5 require an on/off system controller

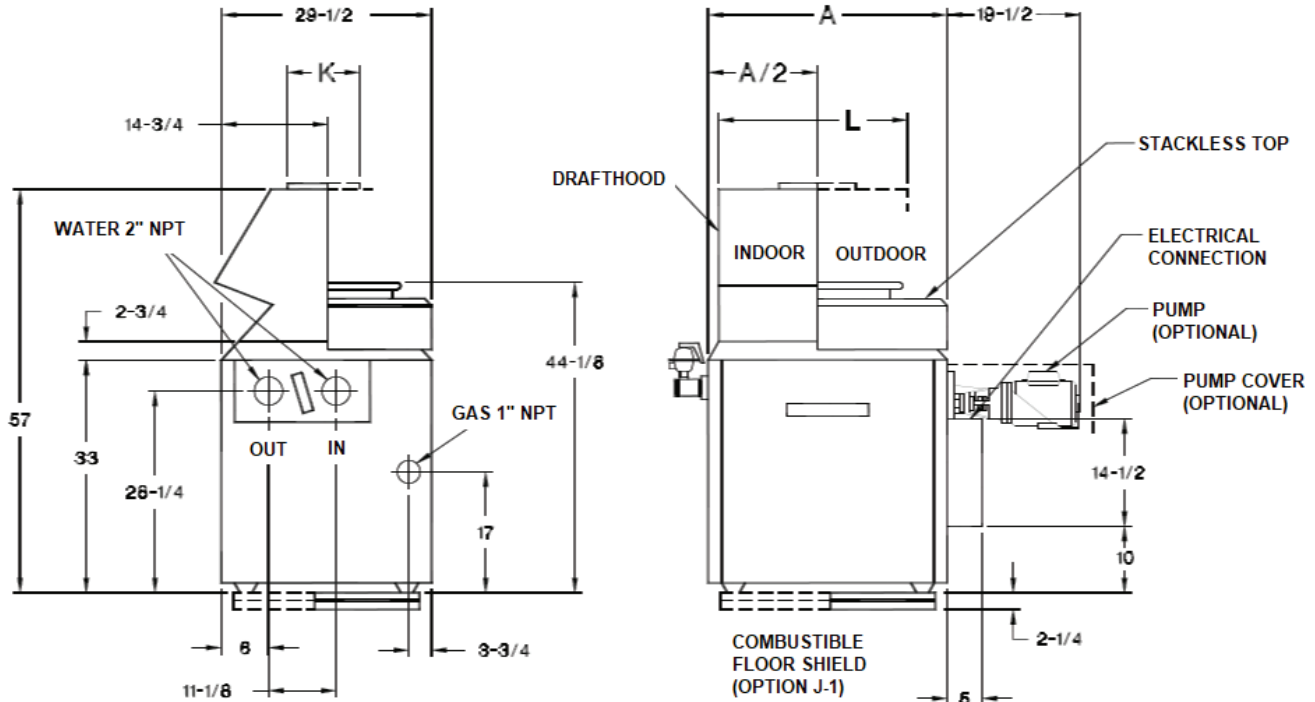
- B-6 Two-stage mechanical
- B-__ Two-stage digital
- B-__ Four-stage digital
- B-60 Stage interface
- B-__ TempTracker Mod+ Hybrid 2-16 boilers

Additional Safety Controls

- F-9 Low water cut-off probe
- I-1 High limit control, auto-reset
- S-1 Low gas pressure switch, manual-reset
- S-2 High gas pressure switch, manual-reset
- _____
- _____

Regulatory agency requirements

- _____
- _____



MODELS H 514-824

NOTE: Dimensions are in inches.

Model	MBTUH (kW) Natural Gas		MBTUH (kW) Propane		Dimensions in. (mm)			Electrical Rating		Approx. Shipping Weight Lbs. (Kg.)
	Input	Output	Input	Output	Width A	Flue Dia. K	L	With Pump	Without Pump	
<input type="checkbox"/> H-514	511.5 (150)	419.4 (123)	481 (141)	394.4 (116)	32-3/4 (832)	10 (254)	25-3/8 (645)	Less than 12 amps at 120V	Less than 4 amps at 120V	455 (206)
<input type="checkbox"/> H-624	627 (184)	514.2 (151)	589 (173)	483 (142)	37-1/2 (952)	12 (305)	29-1/2 (749)			465 (211)
<input type="checkbox"/> H-724	726 (213)	595.3 (174)	682 (200)	559.2 (164)	41-5/8 (1057)		34-1/4 (870)			575 (261)
<input type="checkbox"/> H-824	825 (242)	676.5 (198)	775 (227)	635.5 (186)	45-3/4 (1162)	14 (356)	38-1/2 (978)			605 (274)

BOILER RATE OF FLOW AND PRESSURE DROP												
Model No.	10°F ΔT		20°F ΔT		30°F ΔT		MINIMUM FLOW			MAXIMUM FLOW		
	GPM (L/min)	ΔP ft (m)	GPM (L/min)	ΔP ft (m)	GPM (L/min)	ΔP ft (m)	GPM (L/min)	ΔP ft (m)	ΔT	GPM (L/min)	ΔP ft (m)	ΔT
<input type="checkbox"/> H-514	84 (318)	7.8 (2.3)	42 (159)	1.9 (0.5)			40 (151)	1.8 (0.5)	21	90 (341)	9.0 (2.7)	9
<input type="checkbox"/> H-624			52 (197)	3.0 (0.9)				1.9 (0.57)	26		9.5 (2.9)	12
<input type="checkbox"/> H-724			60 (227)	4.4 (1.3)	40 (151)	2.0 (0.6)		2.0 (0.6)	30		10.0 (3.0)	13
<input type="checkbox"/> H-824			68 (257)	6.0 (1.8)	46 (174)	2.8 (0.8)		2.1 (0.64)	34		10.5 (3.2)	15