



**Product Submittal for Raytherm® - Type H
Hydronic Heating Boilers Commercial
Models 926-1758 (Outdoor)**

Date: _____ Job: _____ Location: _____

Equipment Tags: _____ Engineer: _____ Contractor: _____

Model: _____ Notes: _____

Prepared by: _____

Gas Type: Natural Gas Propane

Efficiency - 82% thermal efficiency

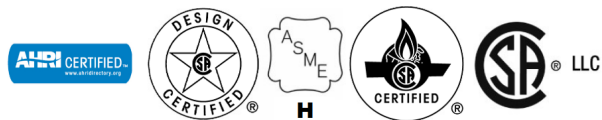
Thermal shock proof - limited 25-year thermal shock warranty

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 the USA





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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)
- Flow configuration
 - Two-pass (standard)
 - Single-pass (cast iron only)
- 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 Control 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)

Construction

- Front controls
- Stainless steel burners
- Polytuf powder-coat finish
- Stackless top
- Base (optional)
 - J-1 Combustible floor shield
- CSA Low lead certified ≤ .25% Lead
- Design certified ANSI Z21.13/CSA 4.9

Temperature Controllers

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

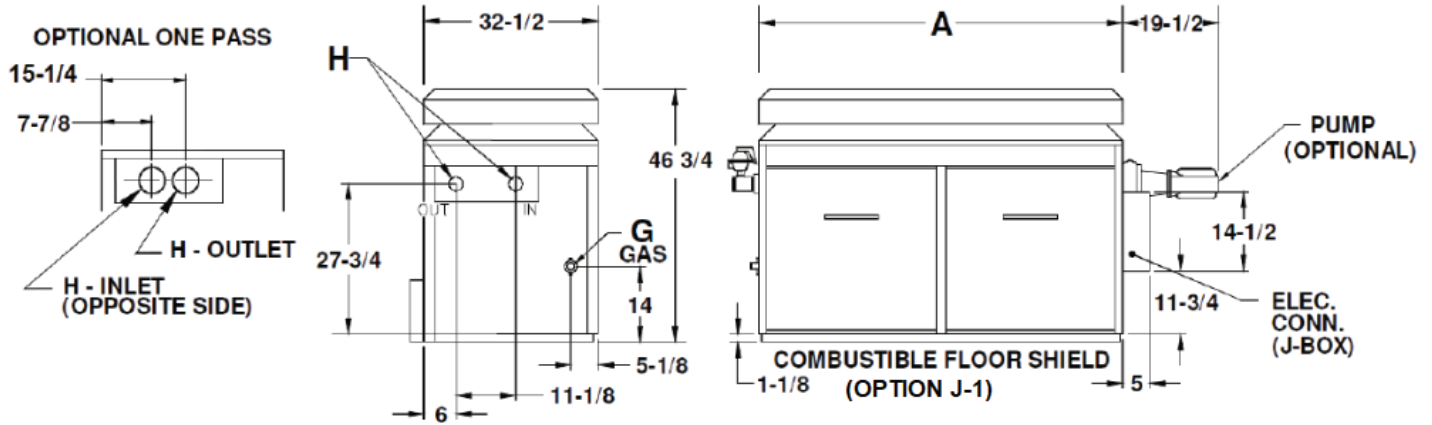
- B-6 Two-Stage-Mechanical (H3)
- B-__ TempTracker Mod+ Hybrid 2-16 boilers (all)
- B-__ Two-stage digital (H3)
- B-__ Four-stage digital (H9)
- B-60 Stage interface (H3/H9)

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

- _____
- _____



NOTE: Dimensions are in inches.

MODELS H 926-1758

Model	MBTUH (kW) Natural Gas		MBTUH (kW) Propane		Dimensions in. (mm)			Electrical Rating		Approx. Shipping Weight Lbs. (Kg.)
	Input	Output	Input	Output	Width A	Gas Conn. NPT G	Water Conn. H	With Pump	Without Pump	
<input type="checkbox"/> H-926	926 (271)	759.3 (223)	885 (259)	725.7 (213)	52-3/8 (1330)	1 (25)	2-1/2 (b)	Less than 12 amps at 120V	Less than 4 amps at 120V	785 (356)
<input type="checkbox"/> H-1083	1083 (317)	888.1 (260)	1035 (303)	848.7 (249)	59-1/4 (1505)	1 (a) (25)				865 (392)
<input type="checkbox"/> H-1178	1178 (345)	966 (283)	1125 (330)	922.5 (270)	63-5/8 (1616)					925 (420)
<input type="checkbox"/> H-1287	1287 (377)	1055.3 (309)	1230 (360)	1008.6 (296)	68-5/8 (1743)	1-1/4 (32)				980 (444)
<input type="checkbox"/> H-1414	1413 (414)	1159 (340)	1350 (396)	1107 (324)	74-7/8 (1902)					1080 (490)
<input type="checkbox"/> H-1571	1570 (460)	1287.4 (377)	1500 (440)	1230 (360)	81-1/8 (2061)					1130 (512)
<input type="checkbox"/> H-1758	1758 (515)	1441.6 (422)	1680 (492)	1377.6 (404)	89-3/8 (2270)					1160 (526)

NOTE: Ratings are for elevations up to 2,000 feet. For elevations over 2,000 feet, reduce ratings 4% for every 1,000 feet above sea level.

(a) 1" or 1-1/4" contingent on boiler type code requirements.
(b) 3" NPT on single-pass option.



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BOILER RATE OF FLOW AND PRESSURE DROP (FOR CLOSED-LOOP HEATING SYSTEMS) (1)

	Model No.	10°F ΔT		20°F ΔT		30°F ΔT		40°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)	GPM (L/min)	ΔP ft (m)	ΔT	GPM (L/min)	ΔP ft (m)	ΔT
TWO-PASS	<input type="checkbox"/> H-926	EXCEEDS MAX. FLOW		77 (291)	8.0 (2.4)	51 (193)	3.5 (1.0)	LESS THAN MIN. FLOW		40 (151)	2.2 (0.6)	40	90 (341)	11.0 (3.3)	17
	<input type="checkbox"/> H-1083			90 (341)	12.0 (3.6)	60 (227)	5.3 (1.6)	45 (170)	3.1 (0.9)	45 (170)	3.1 (0.9)			12.0 (3.6)	20
	<input type="checkbox"/> H-1178			EXCEEDS MAX. FLOW	65 (246)	6.5 (2.0)	49 (185)	3.8 (1.1)	49 (185)	3.8 (1.1)	12.5 (3.8)			22	
	<input type="checkbox"/> H-1287				71 (269)	8.2 (2.5)	53 (201)	4.5 (1.4)	53 (201)	4.5 (1.4)	13.2 (4.0)			24	
	<input type="checkbox"/> H-1414				78 (295)	10.5 (3.2)	58 (219)	5.8 (1.7)	58 (219)	5.8 (1.7)	14.0 (4.2)			26	
	<input type="checkbox"/> H-1571				87 (329)	13.5 (4.1)	65 (246)	7.5 (2.3)	65 (246)	7.5 (2.3)	14.5 (4.4)			29	
	<input type="checkbox"/> H-1758				EXCEEDS MAX. FLOW		73 (276)	10.0 (3.0)	73 (276)	10.0 (3.0)	15.4 (4.7)			32	
ONE-PASS (2)	<input type="checkbox"/> H-926	152 (575)	5.7 (1.7)	LESS THAN MIN. FLOW		LESS THAN MIN. FLOW			2.1 (0.6)	17	90 (341)	200 (757)	9.7 (2.9)	8	
	<input type="checkbox"/> H-1083	178 (673)	8.2 (2.5)						2.3 (0.7)	20			10.3 (3.1)	9	
	<input type="checkbox"/> H-1178	193 (730)	10.3 (3.1)	97 (367)	2.7 (0.8)				2.4 (0.73)	21			11.0 (3.3)	10	
	<input type="checkbox"/> H-1287	EXCEEDS MAX. FLOW	106 (401)	3.4 (1.0)	2.5 (0.76)				23	11.7 (3.5)			11		
	<input type="checkbox"/> H-1414		116 (439)	4.2 (1.3)	2.7 (0.8)				26	12.2 (3.7)			12		
	<input type="checkbox"/> H-1571		129 (488)	5.5 (1.7)	2.8 (0.85)				29	13.0 (3.9)			13		
	<input type="checkbox"/> H-1758		144 (545)	7.3 (2.2)	96 (363)				3.4 (1.0)	LESS THAN MIN. FLOW			3.0 (0.9)	32	14.7 (4.5)

- NOTES:**
(1) In closed-loop heating systems, GPM may increase by 10% and pressure drop by 21%.
(2) One-pass heat exchangers should be used only when flow rates exceed maximum acceptable rates for two-pass.