

Job: \_\_\_\_\_

Engineer: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

Model: \_\_\_\_\_ Indoor/Outdoor \_\_\_\_\_

# Raytherm® - Type H

## Hydronic Heating Boilers

Models 182-260 – Indoor/Outdoor

### Efficient

- ▶ 82% efficiency

### Thermal shock proof

- ▶ Limited 25-year thermal shock warranty

### Lightweight

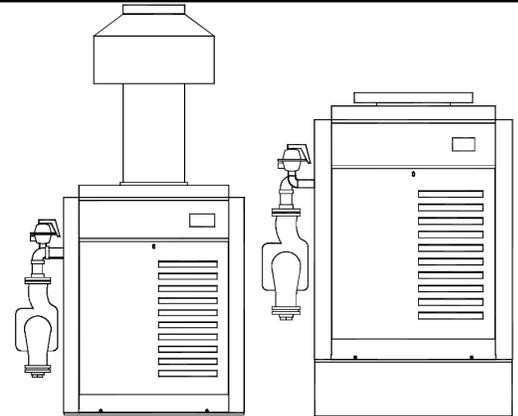
- ▶ A floor load of 70 lbs./sq. ft. or less

### 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



Indoor

Outdoor



Proudly Assembled in the USA

### Heat exchanger

- ASME H Stamped; 160 PSIG MAWP
- National Board
- Headers
  - Cast Iron glass-lined (standard)
  - A-1 Bronze (optional)
- Finned tubing
  - Copper (standard)
  - A-3 Cupronickel (optional)
- ASME Steel tube sheet
- Silicone O-Rings
- Pressure relief valve
  - 45 PSIG ASME (standard)
  - \_\_\_\_\_ PSIG ASME (optional)
- T&P Gauge (shipped loose)
- Water connections
  - Left hand (standard)
  - A-6 Right hand (optional)
- Flow configuration (two pass)
- Pump (optional)
  - Mounted, 1/8 HP, 120V, 1Ø 60 Hz

### Controls

- 120V, 60Hz, 1 Ph Power supply
- 120/24V Transformer
- 100% Pilot shut-off
- Electronic, Intermittent Ignition (IID) Pilot
- High limit control, manual reset
- On/Off switch
- Flow switch
- Economaster II pump time delay
- Electronic outdoor reset control

### Gas control train

- Manual main gas shut-off cock
- Main gas pressure regulator
- Redundant safety shut-off valve
- Control valve
- Firing mode
  - H-3 Two-stage firing
  - H-4 On/off
- Fuel
  - Natural gas
  - Propane gas (minimum grade HD-5)
- Design Certified ANSI Z21.13/CSA 4.9

### Construction

- Front controls
- Stainless steel burners
- Polyurf powder coat finish
- Vent selection (optional)
  - D-2 Power vent, loose
  - D-10 Draft diverter
  - D-11 Outdoor stackless top
- Base (optional)
  - J-1 Combustible floor shield
  - J-2 8" Outdoor Base assembly

### Temperature controls

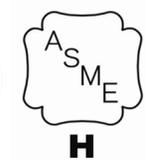
- B-6 Two-stage – 100-200°F
- B-\_\_\_\_, Temp tracker digital controller, 2 Stages
- B-\_\_\_\_, Temp tracker digital, controller, 4 Stages

### Additional safety controls

- F-10 Low water cut-off probe
- I-1 High limit control, auto reset, 240°F
- S-1 Low gas pressure switch, manual
- S-2 High gas pressure switch, manual

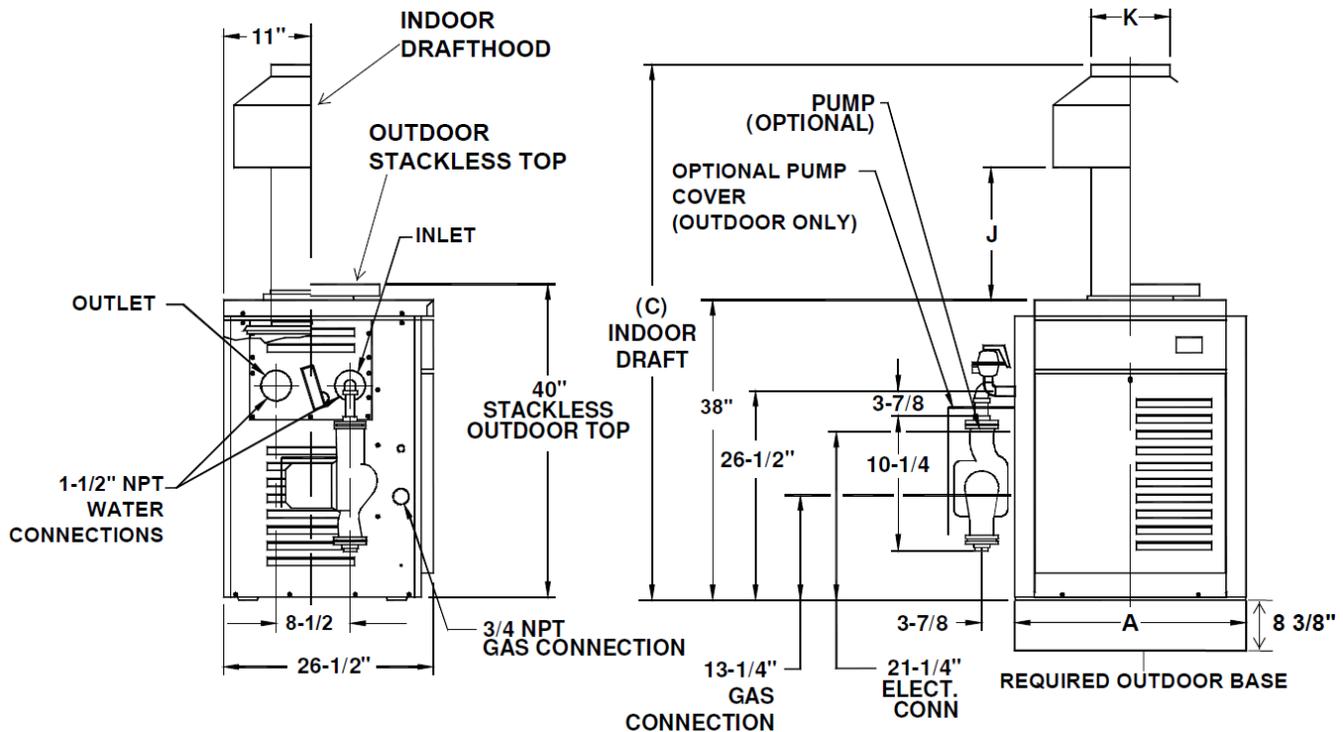
### Regulatory agency requirements

- \_\_\_\_\_
- \_\_\_\_\_



# Raytherm - Type H Hydronic Heating Boilers – Indoor/Outdoor

Model \_\_\_\_\_



Model	MBTU (kW) Input	MBTU (kW) Output	AFUE* (%)	Dimensions In. (mm)				Electrical Rating		Ship Weight Lbs. (kg)	
				Width A	Height C	J	Flue Dia. K	Without Pump	With Pump	No Pump	w/ Pump
H-182	181 (53)	148 (43)	82.6	18-1/4 (464)	62-5/8 (1591)	12-1/16 (307)	6 (152)	Less than 2 amps 120VAC	Less than 10 amps 120VAC	191 (87)	221 (100)
H-260	264 (77)	216 (63)	82.7	22-3/8 (568)	62-7/8 (1597)	11-1/8 (283)	7 (178)			214 (97)	244 (111)

\* With Vent Damper

NOTE: Ratings shown are for elevations up to 2,000 feet. For elevations over 2,000, reduce ratings at the rate of 4% for each 1,000 feet above sea level.

## Boiler rate of flow and pressure drop

Model	10° DT		20° DT		30° DT		Max Flow		Min Flow	
	GPM	DP FT	GPM	DP FT	GPM	DP FT	GPM	DP FT	GPM	DP FT
H-182	30	4.2	N/A	N/A	N/A	N/A	45	9.2	20	1.8
H-260	43	8.5	22	2.2	N/A	N/A	45	9.4	20	1.9

N/A – Not Applicable

Minimum flow rates in closed systems may be reduced to a flow rate consistent with 20°F ΔT