Job:	
Engineer:	
Contractor:	
Prepared By:	Date:
Model:	Outdoor

Raytherm® - Type H

Hydronic Heating Boilers
Models 182-400 - Outdoor

EFFICIENT

 82% thermal efficiency – highest of any atmospheric boiler available today

THERMAL SHOCK PROOF

- Twenty-year warranty against thermal shock damage up to 150°F differential
- Maximum operating temperature: 230°F

LIGHTWEIGHT

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

HIGH RECOVERY

 Cuts fuel costs substantially because the standby and radiation losses normal to other boilers and tank-type water heaters are eliminated

LOW WATER OPERATING TEMPERATURE

 Operates with water temperature as low as 105°F without condensing

Heat Exchanger

- ASME Inspected and Stamped 160 PSIG
- National Board Approved
- Headers
 - ☐ Cast Iron Glass-lined Standard☐ Bronze Option A-1
- Finned Tubing
 - ☐ Copper Standard
- ☐ Cupro Nickel Option A-3
- ASME Steel Tube Sheet
- Silicone O-Rings
- 45 PSIG ASME Pressure Relief Valve
- Temperature and Pressure Gauge, Shipped Loose
- Water Connections
 - Left Hand Standard
 - Right Hand Option A-6
- Flow Configuration Two-pass
- Pump Optional
 - Mounted, 1/8 HP, 120 Volt, 1&, 60 Hz

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
- Electronic Outdoor reset Controller (Std. on 182 & 260)

Gas Control Train

- Manual Main Gas Shut-off Cock
- Main Gas Pressure Regulator
- Redundant Safety Shut-off Valve
- Control Valve
- Firing Mode
 - On/off (H4)
 - ☐ Two-stage Firing (H3)
 - ☐ Mechanical Modulation, 110-170°F (H5) Available only on
 - Models 330& 400

 ☐ Mechanical Modulation,
 150-210 ♥ (H1) Available only or
- 150-210 °F (H1) Available only on Models 330 & 400
- Fuel
 - ☐ Natural Gas
 - ☐ Propane Gas
- Design Certified ANSI Z21.13/CSA 4.9

Construction

- Front Controls
- Stainless Steel Burners
- Polytuf Powder Coat Finish
- Stackless Top
- Vent Selection
 - Stackless Top Option D-11
 - Power Vent, Loose Option D-2
- Base Optional
 - 8" Base Assembly Option J-2



Temperature Controls

Note: H1 and H5 do not require a controller

- ☐ B-6 Two-stage 100-200°F
- B-___ Temp Tracker Digital Controller, 2 Stages
- ☐ B-___Temp Tracker Digital
 - Controller, 4 Stages
- B-42 Electronic Outdoor Reset Controller (Std. on Models 182 & 260)

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,

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Regulatory Agency Requirements

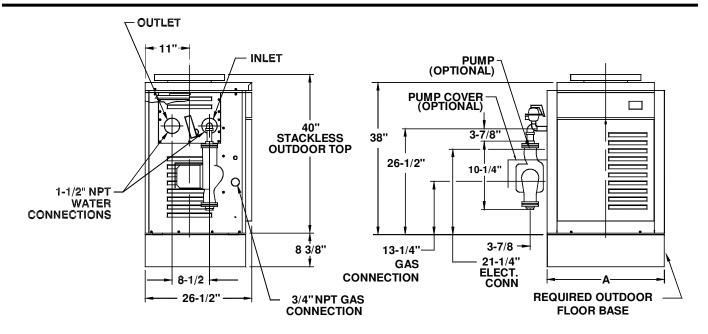








Catalog No.: 2000.206E Effective: 11-1-13 Replaces: 1-1-08



Model	MBTU	MBTU	Width	Shipping Weight (Lbs.) - Approx.	
No.	Input	Output	Α	No Pump	w/ Pump
H-182	181	145	18-1/4"	191	221
H-260	264	211	22-3/8"	214	244
H-330	334	267	25-3/4"	234	264
H-400	399	319	29-1/4"	253	283

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

BOILER RATE OF FLOW AND PRESSURE DROP

Model	10°ΔT		20°∆T		30°∆T		40°∆T	
No.	GPM	∆P FT	GPM	ΔP FT	GPM	∆P FT	GPM	∆P FT
H-182	30	4.2	N/A	N/A	N/A	N/A	N/A	N/A
H-260	43	8.5	22	2.2	N/A	N/A	N/A	N/A
H-330	N/A	N/A	27	3.4	N/A	N/A	N/A	N/A
H-400	N/A	N/A	33	5.2	22	2.3	N/A	N/A

N/A - Not Applicable