Job:		
Engineer:		
Contractor:		
Prepared By:	Date: _	
Model:		_ Indoor

# Raytherm<sup>®</sup> - Type H

**Hydronic Heating Boilers** Models 182-400 - Indoor

#### **EFFICIENT**

82% 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
- ASME Pressure Relief Valve
  - ☐ 45 PSIG Standard
  - PSIG ASME Optional
- 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

#### **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)
  - 150-210°F (H1)
- Fuel
  - Natural Gas
- Propane Gas
- Design Certified ANSI Z21.13

### Construction

- Front Controls
- Stainless Steel Burners
- Polytuf Powder Coat Finish
- Vent Selection
  - Draft Diverter Option D-10
  - Power Vent, Loose Option D-2
- Base (Optional)
  - ☐ Combustible Floor Shield Option J-1

### **Temperature Controls**

Note: H1 and H5 do not require a controller

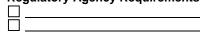
- □ B-6 Two-stage - 100-200°F
- ☐ Y-241 Electronic Sequencer,
  - 1-4 Stages
- ☐ Y-281 Electronic Sequencer, 1-8 Stages

# **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
- High Gas Pressure Switch, ☐ S-2 Manual

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# **Regulatory Agency Requirements**

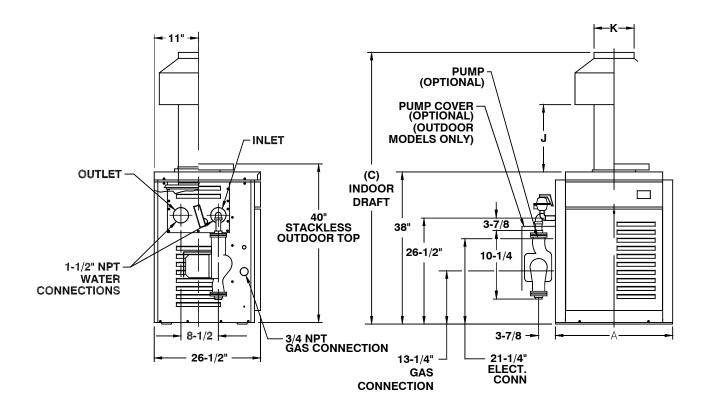








Catalog No.: 2000.205D Effective: 1-1-08 Replaces: 4-1-05



				Dimensions (Inches)			Shipping Weight		
Model	MBTU	MBTU	AFUE*	Width	Height		Flue Dia.	(Lbs.) – Approx.	
No.	Input	Output	(%)	Α	С	J	K	No Pump	w/ Pump
H-182	181	148	82.6	18-1/4	62-5/8	12-1/16	6	191	221
H-260	264	216	82.7	22-3/8	62-7/8	11-1/8	7	214	244
H-330	334	274	N/A	25-3/4	63-3/4	10-3/4	8	234	264
H-400	399	327	N/A	29-1/4	65-3/8	12-1/2	9	253	283

<sup>\*</sup> 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° ΔΤ		20°	ΔΤ	30° ΔT	
No.	GPM	ΔP FT	GPM	ΔP FT	GPM	ΔP FT
H-182	30	4.2	N/A	N/A	N/A	N/A
H-260	43	8.5	22	2.2	N/A	N/A
H-330	N/A	N/A	27	3.4	N/A	N/A
H-400	N/A	N/A	33	5.2	22	2.3

N/A - Not Applicable

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