

Job: _____
 Engineer: _____
 Contractor: _____
 Prepared By: _____ Date: _____
 Model: _____ Indoor/Outdoor: _____

Raytherm[®] - Type H

Hydronic Heating Boilers
 Residential ♦ Commercial

Model 133

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

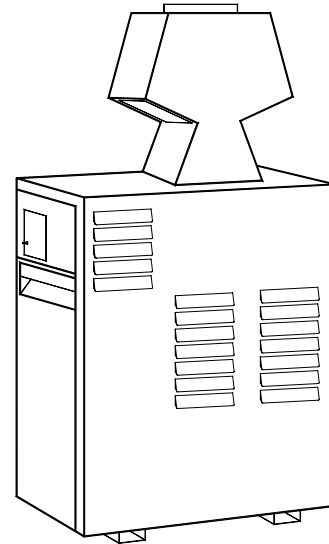
- ▶ **A floor load of 70 lbs./sq. ft. or less**

HIGH RECOVERY

- ▶ **Cuts fuel costs substantially because the standby and radiation losses normal to other boilers are eliminated**

LOW WATER OPERATING TEMPERATURE

- ▶ **Operates with water temperature as low as 105°F without condensing**



INDOOR MODEL

Heat Exchanger

- ASME Inspected and Stamped 160 PSIG
- National Board Approved
- Glass-lined Cast Iron Headers
- Copper Finned Tubing
- ASME Steel Tube Sheet
- Silicone O-Rings
- 45 PSIG ASME Pressure Relief Valve
- Temperature and Pressure Gauge, Shipped Loose
- Rear Water Connection
- Pump – Optional
 - Bronze, 1/8 HP, 120 Volt, 1Ø, 60 Hz
 - Cast Iron, 1/8 HP, 120 Volt, 1Ø, 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 - Automatic
- On/Off Switch
- Operating Limit Control
- Economaster II Pump Time Delay

Gas Train

- Manual Main Gas Shut-off Cock
- Main Gas Pressure Regulator
- Redundant Safety Shut-off Valve
- Control Valve
- Mechanical Modulation (H1)
- Fuel
 - Natural Gas
 - Propane Gas
- Design Certified ANSI Z21.13/ CSA 4.9

Construction

- Front Controls
- Stainless Steel Burners
- Polytuf Powder Coat Finish
- Vent Selection
 - Draft Diverter (Indoor) – Option D-10
 - Stackless Top (Outdoor) – Option D-11
 - High-Wind Top (Outdoor) – Option D-13
- Base – Optional
 - Combustible Floor Shield – Option J-1
- Vent Damper – Indoor Residential models only

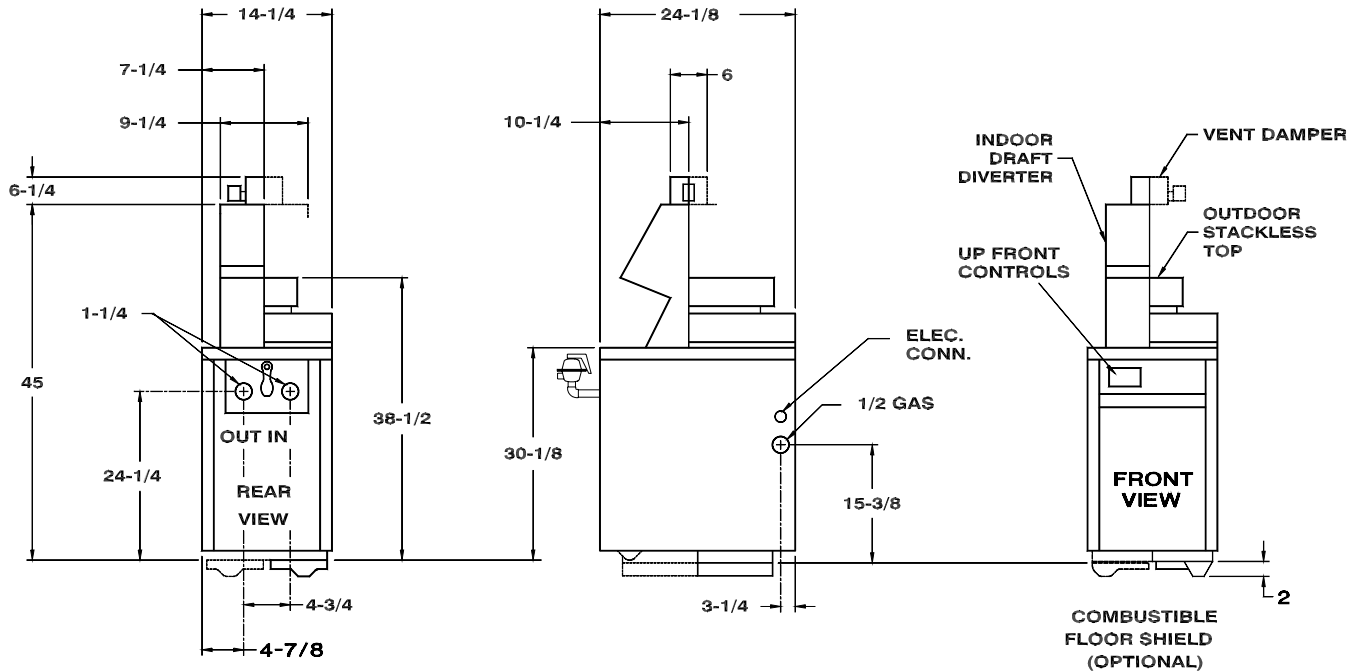
NOTE: Unit cannot be installed outdoors in residential applications.



Raypak[®]
 A Rheem[®] Company

Raytherm - Type H Hydronic Heating Boilers

Model 133



Model No.	Input MBTU	Indoor		Outdoor	Shipping Weight Lbs. (Approx.)
		Output MBTU	AFUE	Output MBTU	
H-133	136	112	82.7%	109	160

NOTES:

Ratings shown are for elevations up to 2,000 feet. 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

10°ΔT		20°ΔT		30°ΔT		40°ΔT	
GPM	ΔP FT.	GPM	ΔP FT.	GPM	ΔP FT.	GPM	ΔP FT.
22	14.7	11	3.8	N/A	N/A	N/A	N/A