

Job: \_\_\_\_\_  
 Engineer: \_\_\_\_\_  
 Contractor: \_\_\_\_\_  
 Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Model: \_\_\_\_\_ Indoor/Outdoor: \_\_\_\_\_

# ADB™ - Type H

Hydronic Heating Boiler  
 Model 500

**100% Factory Fire Tested**

**Efficiency: 84%**

**Maximum Outlet Temperature: 230°F**

**Minimum Non-condensing Inlet Temperature: 105°F**

**Thermal Shock Proof Heat Exchanger**

**Footprint: Less than 5 ft<sup>2</sup>**

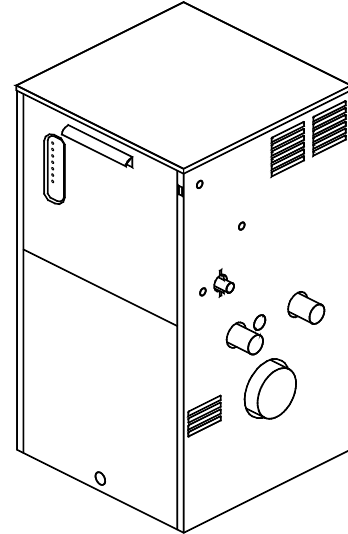
**CSD-1 Gas Train**

**Limited Twenty-Year Thermal Shock Warranty**

**Limited Ten-Year Heat Exchanger Warranty**

**Ten-Year Unconditional Burner Head Warranty**

**Operation Status Center and Full Diagnostic Panel**



### Heat Exchanger

- Bronze Headers
- ASME Inspected and Stamped  
160 PSIG Working Pressure
- National Board Approved
- Finned Copper Tubes
- ASME Steel Tube Retainer
- Silicone High Temp O-Rings
- Pressure Relief Valve - ASME
  - 60 PSIG – Standard
  - \_\_\_\_\_ PSIG – Optional
- Temperature and Pressure Gauge, Shipped Loose

### Control

- 120V, 60Hz, Power Supply
- 120/24V 60Hz, Transformer
- 100% Pilot Shutoff/Lockout
- Pilot: Electronic Intermittent Ignition (I.I.D.)
- High Limit Control, Manual Reset
- Operating Limit Control, Auto Reset
- On/Off Switch
- Flow Switch
- Blocked Vent Pressure Switch
- Combustion Air Proving Switch
- Time Delay Pump Off Control
- Central Point Wiring Diagnostics Panel

### Burner

- Aerodynamically Stabilized Non-clog Burner
- Ultra-low NOx: Less than 30 PPM

### Gas Train (CSD-1)

- Fuel
  - Natural Gas
  - Propane
- Manual Gas Shut-off Valves
- Gas Pressure Regulator
- Safety Shut-off Valve
- Firing Control Valve
- Manual Low Gas Pressure Switch
- On/Off Firing Mode (H4)
- Design Certified ANSI Z21.13/CSA 4.9

### Construction

- Indoor/Outdoor Construction
- Enclosed Front Controls
- PolyTuf Powder Coat Finish
- Connections (Water, Electrical, Gas)
  - Rear – Standard
  - Right Hand – Option A-8

### Venting

- Vent Location
  - Rear – Standard
  - Right Side – Option Z-2
- Vent Termination Cap
  - Outdoor - Option D-11
  - Indoor, Horizontal – Option D-15
  - Indoor, Vertical (by others)

### Temperature Controls

- B-20 Single-Stage Controller, 100-200°F
- B-6 2-Stage Controller, 100-200°F
- B-21 4-Stage TempTracker Digital Controller
- B-23 4-Stage TempTracker Digital Controller, Outdoor Reset
- Y-241 Electronic Sequencer, 1-4 Stages
- Y-281 Electronic Sequencer, 5-8 Stages

### Additional Safety Controls (Optional)

- F-10 Low Water Cut-off, Remote Probe
- S-2 Manual High Gas Pressure Switch
- \_\_\_\_\_
- \_\_\_\_\_

### Regulatory Agency Requirements

- C-5 Ignition Lockout Module
- \_\_\_\_\_

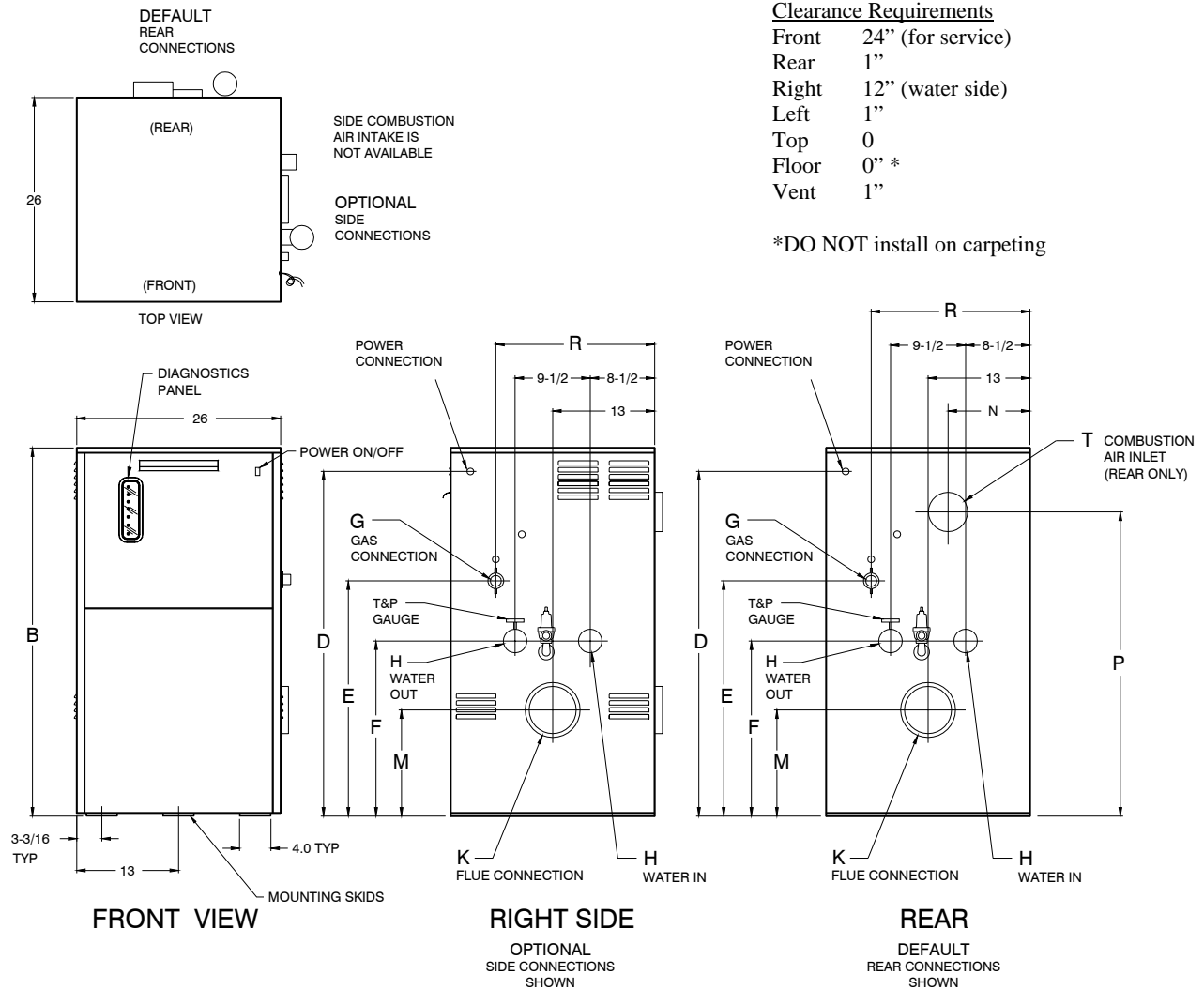
### Other Equipment

- Condensing Heat Exchanger
- Pump



**Raypak**  
 A Rheem Company

# ADB - Type H Model 500



MODEL	MBTUH		B Height	D	E	F	G NPT	H NPT	K	M	N	P	R	T	Ship Weight Lbs.	Foot-print Ft. <sup>2</sup>	Amps*
	Input	Output															
H 500	500	420	49	46	30	22-1/2	1	2	6	13-3/4	8-5/8	40	22-1/4	6	545	4-3/4	8

Dimensions are in inches.  
Ratings shown for elevations up to 5,000 feet for natural or propane gas.  
For installation at elevations over 5,000 feet, please consult factory.

\* Current draw NOT including pump.  
(Supply breaker must have a delayed trip)

NOTE: For direct vent applications, please contact factory about relocating the pump.

## BOILER RATES OF FLOW AND PRESSURE DROPS

MODEL	20°F ΔT		MAX. FLOW			MIN. FLOW		
	GPM	ΔP (ft)	GPM	ΔP (ft)	ΔT	GPM	ΔP (ft)	ΔT
H 500	42	2.6	84	8.8	10°F	30	1.6	28°F

Recommended natural gas pressure is 7-10.5" w.c.  
Recommended propane gas pressure is 11-13" w.c.

Raypak, Inc. ▪ 2151 Eastman Avenue, Oxnard, CA 93030 ▪ (805) 278-5300 ▪ Fax (800) 872-9725 ▪ www.raypak.com