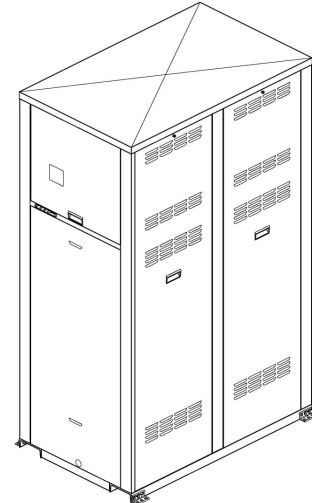


Job: _____
 Engineer: _____
 Contractor: _____
 Prepared By: _____ Date: _____
 Model: _____ Indoor/Outdoor: _____

XTherm™ - Type H

Heating Boilers
 Models 1005A-2005A

- 96% Thermal Efficiency at Full Rate; Up to 99% at Part Load
- 100% Factory Fire Tested
- VERSA IC™ Modulating Controller with LCD Display
- Full Electronic Modulation, Constant Ratio 7:1 Turndown
- Full Safety Diagnostics with History
- Status Display Lights
- Cascade up to 4 Heaters – No External Sequencer Required
- Modbus RTU BMS Port
- Maximum Outlet Water Temperature: 235°F
- Minimum Inlet Water Temperature: 50°F
- Limited Twenty-Five-Year Thermal Shock Warranty
- Limited Ten-Year Primary Heat Exchanger Warranty
- Limited Ten-Year Secondary Heat Exchanger Warranty



 Proudly Made in the USA

Heat Exchanger

- Headers
 - Cast Iron – Standard
 - Bronze – Option A-1
- ASME H Stamped; 160 PSIG MAWP
- National Board Listed
- Fin Tubing
 - Copper – Standard
 - Cupro Nickel – Option A-3
- ASME Powder-Coated Tube Sheet
- Silicone High Temp O-Rings
- ASME Pressure Relief Valve
 - 60 PSIG – Standard
 - _____ PSIG – Optional
- 150 PSI Air Vent, Auto
- T&P Gauge, Shipped Loose
- Stainless Steel Secondary Heat Exchanger
- Stainless Steel Evaporator Plate
- Boiler Pump: 120V, 1Ø, 60Hz;
 - Cast Iron – Standard
 - Bronze – Option

Control

- 120V, 60Hz, 1Ø, Power Supply
- 120/24V 60Hz Transformer
- Ignition Module
 - 3-Try – Standard
 - Single-Try – Option C-6
- Hot Surface Ignition (HSI)
- Remote Flame Sensor
- Fixed High Limit, Manual Reset, 240°F
- On/Off Power Switch
- Flow Switch
- Blocked Vent Pressure Switch
- Freeze Protection
- Alarm Dry Contact
- Pump Outputs – Pilot Duty
 - DHW Indirect
 - System
- Programmable Pump Time Delays

- LCD Display: Status, Fault and Diagnostics
- Modulating Temperature Control; 7:1 turndown
- Water Temperature Sensors (7)
- Cold Water Protection – Built In
- Blocked Condensate Switch
- Modbus RTU BMS Port (Up to 115K Baud Rate, see Cat. No. 5000.73)
- B-85 BMS Gateway, Modbus RTU to Modbus TCP, N2 Metasys, BACnet IP, or BACnet MS/TP
- B-86 BMS Gateway, Modbus RTU to LonWorks

Burner

- Radially Fired Knitted Burner

Gas Train

- Fuel
 - Natural Gas
 - Propane
- Dual-Seat Combination Valve
- Manual Shut Off Firing Valve

Construction

- Indoor/Outdoor Construction
- Enclosed Front Controls
- PolyTuf Powder Coat Finish
- Rear Connections (Water, Gas, Vent, Electrical, Comb. Air, Cond. Drain)
- Combustion Air Filter
- Design Certified ANSI Z21.13/CSA 4.9
- Front Connection Low Voltage Wiring

Venting

- Vent Termination, Cat IV
 - Outdoor or Indoor, Vertical – Option D-11
 - Indoor, Horizontal – Option D-15
- Extractor – Optional, Cat II
 - By others

Not required

Options

- D-32 PVC Vent Adapter (Includes 162°F Manual High Limit) (Factory installed only)
- D-33 Centrotherm™ Polypropylene Vent Adapter (Includes 180°F Manual High Limit) (shipped loose)
- F-10 Low Water Cut-Off, Remote Probe
- I-1 High Limit, Auto Reset, Adj., 100-240°F
- I-2 High Limit, Manual Reset, Adj., 100-240°F
- S-1 Low Gas Pressure Switch, Manual Reset
- S-2 High Gas Pressure Switch, Manual Reset
- Z-12 Condensate Neutralizer Kit

Regulatory Agency Requirements

Multi-Boiler Digital Temp Controllers

- B-36 TempTracker Mod+ Hybrid, 2-4 Boilers, OA Reset
- B-37 TempTracker Mod+ Hybrid, 5-10 Boilers, OA Reset
- B-38 TempTracker Mod+ Hybrid, 11-16 Boilers, OA Reset
- B-39* EMS 4-20 mA Remote Setpoint Interface Module
- B-62* BACnet MS/TP Interface Module (*only used with B-36 to B-38)



Raypak®

A Rheem Company

XTherm – Type H

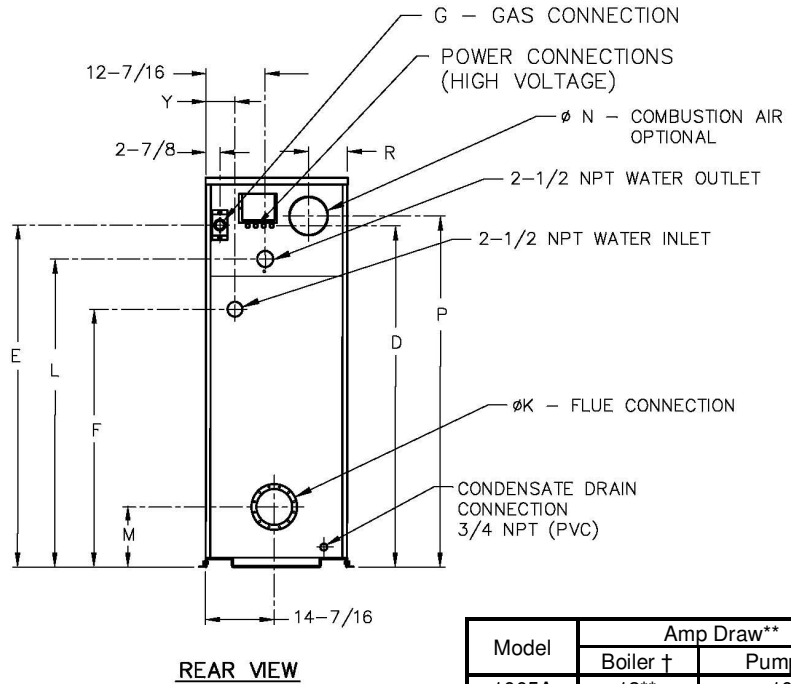
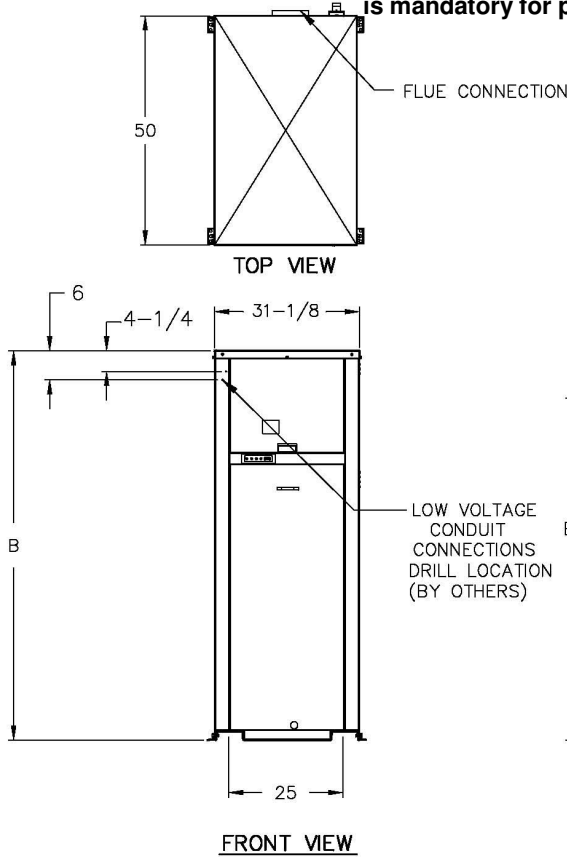
Models 1005A-2005A

Model _____

NOTE: Primary/Secondary plumbing is mandatory for proper operation.

CLEARANCES (in.)

	Front	Rear	Right	Left	Top	Floor	Vent
Certified Minimum	24	12	1	1	0	0	1
Minimum Service	24	36	24	1	10	N/A	N/A



Model	Amp Draw**	
	Boiler †	Pump †
1005A	12**	10
1505A	12**	14
2005A	18**	17

† Separate power connections are factory supplied and separate supply breakers must be field supplied.
** Current draw is for boiler only (Supply breaker must have delayed trip).

Model (H7-)	MBTUH		Dimensions (in)											Ship Weight (Lbs.)	
	Input	Output	B Height	D	E	F	G* NPT	K Flue Ø	L	M	N C/A Ø	P	R		Y
<input type="checkbox"/> 1005A	999	959	55-1/8	45	47-1/8	36-1/2	1-1/4	6	40-1/16	11-1/2	6	47-1/8	8-1/16	6-1/16	1065
<input type="checkbox"/> 1505A	1500	1440	67-1/8	57	59-1/16	38-1/2	1-1/4	8	52-1/16	12-5/8	8	59-1/8	8-3/16	6-1/16	1234
<input type="checkbox"/> 2005A	1999	1919	81-1/8	71	71-3/16	38-1/2	2	8	64-1/16	12-5/8	8	73-1/8	8-3/16	6-1/4	1461

Note: Ratings shown are for elevations up to 4,500 feet. For installations at elevations above 4,500 feet, please consult the factory for additional instructions.

* For Propane Gas, all models are 1" NPT

System Return Temp (°F)	<input type="checkbox"/> Model 1005A				<input type="checkbox"/> Model 1505A				<input type="checkbox"/> Model 2005A			
	Supply Temp (°F)	Minimum Pipe Size ²		Supply Temp (°F)	Minimum Pipe Size ²		Supply Temp (°F)	Minimum Pipe Size ²				
		<80' eq	80-200' eq		<80' eq	80-200' eq		<80' eq	80-200' eq			
60	138	2" NPT	2-1/2" NPT	147	2" NPT	2-1/2" NPT	154	2" NPT	2-1/2" NPT			
80	138	2" NPT	2-1/2" NPT	147	2" NPT	2-1/2" NPT	154	2-1/2" NPT	3" NPT			
100	138	2-1/2" NPT	3" NPT	147	2-1/2" NPT	3" NPT	154	2-1/2" NPT	3" NPT			
120	145	2-1/2" NPT	3" NPT	158	2-1/2" NPT	3" NPT	170	2-1/2" NPT	3" NPT			
140	165	2-1/2" NPT	3" NPT	178	2-1/2" NPT	3" NPT	190	2-1/2" NPT	3" NPT			
160	185	2-1/2" NPT	3" NPT	198	2-1/2" NPT	3" NPT	210	2-1/2" NPT	3" NPT			

¹ – Approximate high fire heater outlet temperature based on the standard heater pump and recommended connecting pipe size.

² – Minimum pipe size based on total equivalent feet of supply and return piping between the system loop and heater.