

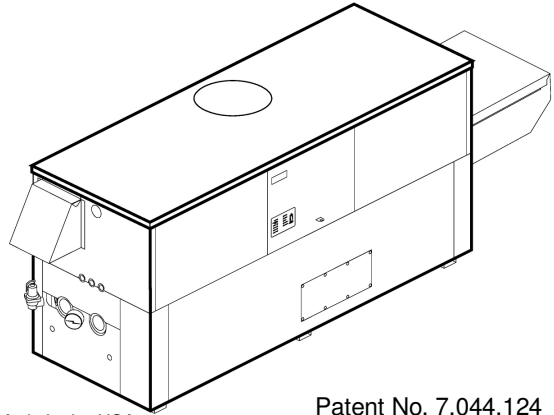
Job: _____
 Engineer: _____
 Contractor: _____
 Prepared By: _____ Date: _____
 Model: _____ Indoor/Outdoor: _____ MBTUH Input: _____

Hi Delta[®] - Type H

Hydronic Heating Boiler
 Models 302BE-902BE

87% Efficiency

- ◆ 100% Factory Fire Tested
- ◆ Efficiency: 87%
- ◆ Maximum Outlet Temperature: 230°F
- ◆ Minimum Non-Condensing Inlet Temperature: 120°F
- ◆ Thermal Shock Proof Heat Exchanger
- ◆ Limited Twenty-Year Thermal Shock Warranty
- ◆ Limited Ten-Year Heat Exchanger Warranty
- ◆ Full Safety Diagnostics with Fault History
- ◆ PolyTuf Powder Coated Cabinet
- ◆ No Combustible Floor Shield Required
- ◆ Fan-Assisted



Patent No. 7,044,124



Proudly Made in the USA

Patented Burner Security Blanket

Heat Exchanger

- H Stamp
- Headers
 - Glass-Lined Cast Iron – Standard
 - Brass – Option A-1
- ASME Inspected and Stamped
160 PSIG Working Pressure
- National Board Approved
- Fin Tubing
 - Copper – Standard
 - Cupro Nickel – Option A-3
- ASME Steel Tube Sheet
- Silicone High Temp O-Rings
- Pressure Relief Valve, ASME
 - 45 PSIG – Standard on Models 302BE and 402BE
 - 60 PSIG – Standard on Models 502BE-902BE
 - _____ PSIG – Optional
- Temperature and Pressure Gauge
- Water Connections
 - Left – Standard
 - Right – Option A-6

Controls

- 120V, 60Hz, 1Ø Power Supply
- 120/24V 60Hz Transformer
- 100% Shutoff/Lockout
- Hot Surface Ignition
- Remote Flame Sensor
- High Limit Control, Manual Reset
- On/Off Power Switch
- Manual Shut-Off, Front-Mounted
- Flow Switch
- Blocked Vent Pressure Switch
- Combustion Air Proving Switch
- Economaster Pump Time Delay
- Diagnostics Panel with LCD Display,
2Lines, 20 Characters

Gas Train

- Manual Gas Shut-Off Valve(s)
- Combo Valve(s)
- Firing Mode
 - On/Off (H4): Models 302BE and 402BE
 - 2-Stage (H3): Models 302BE - 902BE
- Fuel
 - Natural Gas
 - Propane Gas
- Design Certified ANSI Z21.13/
CSA 4.9

Venting

- Vent Location
 - Top – Standard
 - Rear – Option D-14
- Vent Termination Cap
 - Outdoor D-11
 - Indoor, Horizontal D-15
 - Indoor, Vertical (by others)
- Combustion Air
 - In-Line Filter Kit (Recommended
with Ducted-In Air Only) D-17
 - Air Intake Elbow D-16
- Extractor - Optional
 - By Others
 - Not Required

Construction

- Indoor/Outdoor Construction
- Enclosed Front Controls
- CSA Low Lead ($\leq .25$ Pb)

Burner

- Ultra-Low NOx: Less than 20 PPM

Temperature Controls

- B-6 Aquastat, 2-Stage (100-200°F)
- B-__ TempTracker Digital Controller,
2-Stage
- B-__ TempTracker Digital Controller,
4-Stage
- B-__ TempTracker Mod+ Hybrid (2-16
Boilers)
- B-60 Stage Interface

Options

- C-6 Ignition Module, Manual Reset
- D-21 TruSeal[®] Direct Vent
- F-10 Low Water Cut-Off, Remote Probe
- I-1 High Limit Control, Auto Reset
- P-__ Pump: _____ HP, 120V, 1Ø, 60Hz
 - Cast Iron Bronze
 - Mounted Loose
 - Front Rear
- P-__ Cold Water Start (See 2000.48)
- S-1 Low Gas Pressure Switch, Manual
- S-2 High Gas Pressure Switch,
Manual
- X-1 SureRack[™] Kit
- X-2 SureRack Add-on
- _____

Regulatory Agency Requirements

- _____



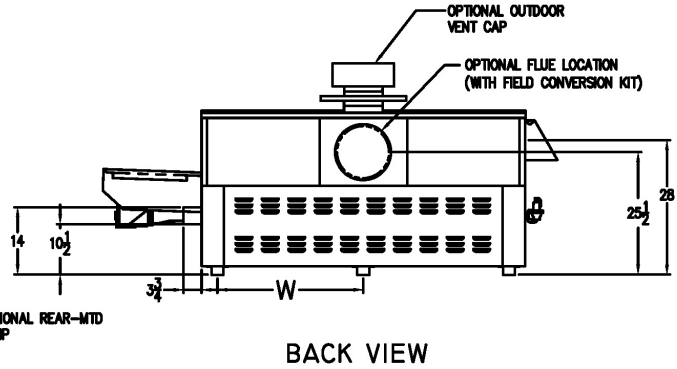
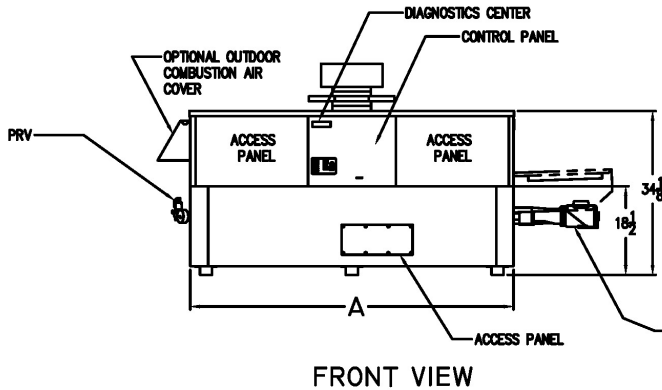
Raypak[®]

A Rheem Company

Hi Delta – Type H

Models 302BE-902BE, 87% Efficiency

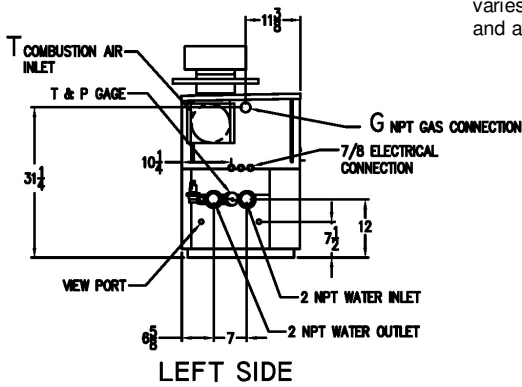
Model _____



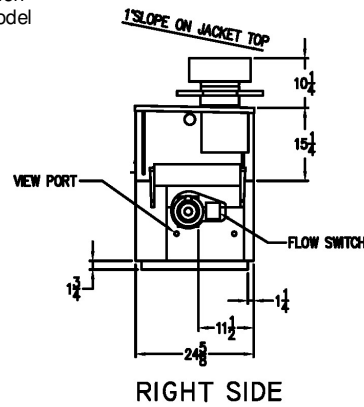
FRONT VIEW

BACK VIEW

NOTE: Pump location varies based on model and application

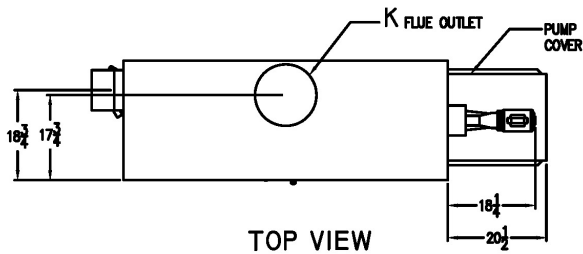


LEFT SIDE



RIGHT SIDE

SPECIFICATIONS



TOP VIEW

Model	MBTUH		A Width	G NPT	H NPT	K	T	W	Amp. Draw	Approx. Shipping Wt. (Lbs)
	Input	Output								
302BE	300	261	36	3/4	2	5	6	18	6	380
402BE	399	347	43	3/4	2	6	6	18-1/2	6	445
502BE	500	435	50	1-1/4	2	6	6	22	6	545
652BE	650	566	60-1/2	1-1/4	2	8	6	27-1/4	6	590
752BE	750	653	67-1/2	1-1/4	2	8	6	30-3/4	6	675
902BE	900	783	78	1-1/4	2	8	6	36	7	740

Dimensions are in inches.

RATES OF FLOW AND PRESSURE DROPS

Model	10 °F ΔT		20 °F ΔT		30 °F ΔT		Min. Flow			Max. Flow		
	GPM	ΔP (ft)	GPM	ΔP (ft)	GPM	ΔP (ft)	GPM	ΔP (ft)	ΔT	GPM	ΔP (ft)	ΔT
302BE	52	3.4	26	<1	N/A	N/A	20	<1	26	90	9.8	6
402BE	69	5.8	35	1.5	23	<1	20	<1	35	90	10.0	8
502BE	87	9.9	44	2.5	29	1.2	22	<1	40	90	10.5	10
652BE	N/A	N/A	57	4.3	38	2.0	28	1.2	40	90	10.7	13
752BE	N/A	N/A	65	5.8	44	2.7	33	1.7	40	90	11.0	15
902BE	N/A	N/A	78	9.0	52	4.1	39	2.4	40	90	11.8	17

Basis is 20 GPM or 40 °F ΔT for minimum flow, 90 GPM for maximum flow.

NOTES: 1. Rates shown are for natural or propane gas, and elevations up to 4,500 feet. For installation above 4,500 feet, please contact manufacturer.
2. Required natural gas pressure is 7 – 10.5" WC. Required propane gas pressure is 11 – 13" WC.

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