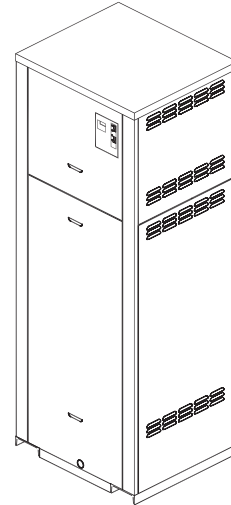


Job: _____
 Engineer: _____
 Contractor: _____
 Prepared By: _____ Date: _____
 Model: _____ Indoor/Outdoor: _____

MVB® - Type WH

Water Heaters
 Models 504-2004

- Up to 85% Thermal Efficiency**
- California AB 1953 Compliant - < .25% Pb**
- 100% Factory Fire Tested**
- Maximum Outlet Water Temperature: 200°F**
- Minimum Acceptable Inlet Water Temperature: 120°F**
- Full Safety Diagnostics with History**
- Footprint: Less Than 5-1/2 ft²**
- Limited Twenty-Year Thermal Shock Warranty**
- Limited Five-Year Heat Exchanger Warranty**
- Soft-Start Modulating Controller with LCD Display**
- Status Display Lights**



- Heat Exchanger**
- Bronze Headers
 - ASME HLW Stamped
160 PSIG Working Pressure
 - National Board Approved
 - Fin Tubing
 - Copper – Standard
 - Cupro Nickel – Option A-3
 - ASME Powder-Coated Tube Sheet
 - Silicone High Temp O-Rings
 - ASME Pressure Relief Valve
 - 125 PSIG – Standard
 - ___ PSIG – Optional
 - Temperature and Pressure Gauge,
Shipped Loose
 - Stainless Steel Evaporator Plate

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
- High Limit, Manual Reset, Fixed, 200°F
- On/Off Power Switch
- Flow Switch
- Blocked Vent Pressure Switch
- Combustion Air Proving Switch
- Pump Switch
- Pump Time Delay
- Diagnostics Panel

Control (cont.)

- On/Off Temperature Control
- Water Temperature Sensors (3)

Burner

- Ultra-Low NOx: Less than 20 PPM

Gas Train

- Fuel
 - Natural Gas
 - Propane
- Zero Governor Regulator
- Dual-Seat Combination Valve
- On/Off Firing with Soft-Start

Construction

- Indoor/Outdoor Construction
- Front Controls Enclosed
- PolyTuf Powder Coat Finish
- Rear Connections (Water, Electrical, Gas, Vent, Combustion Air)
- Design Certified ANSI Z21.10.3/
CSA 4.3
- AB-1953 Compliant

Venting

- Vent Termination
 - Outdoor – Option D-11
 - Indoor, Horizontal – Option D-15
 - Indoor, Vertical (by others)
- Combustion Air
 - In-Line Filter Kit – Option D-17
 - Air Intake Elbow – Option D-16
- Extractor – Optional
 - By others
 - Not required

Temperature Controllers

- B-26 Temp-Tracker Digital Controller,
2 Water Heaters
- B-21 Temp-Tracker Digital Controller,
3-4 Water Heaters
- Y-241 Electronic Sequencer,
2-4 Water Heaters
- Y-281 Electronic Sequencer,
5-8 Water Heaters

Options

- A-30 Air Vent, Auto, 150 PSI
- F-10 Low Water Cut-Off, Remote Probe
- I-3 High Limit, Auto Reset, Adj.,
40-180°F
- I-5 High Limit, Manual Reset, Adj.,
100-200°F
- P-__ Bronze Pump: __HP, 120V, 1Ø,
60Hz
Water Hardness: __GPG
 - Loose
 - Mounted
- P-__ Cold Water Start
- P-__ Cold Water Run
- S-1 Low Gas Pressure Switch,
Manual Reset
- S-2 High Gas Pressure Switch,
Manual Reset

Regulatory Agency Requirements



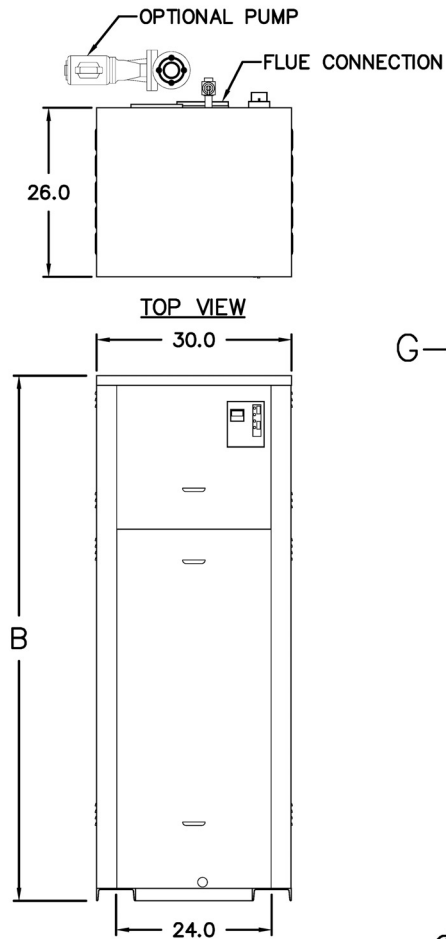
Raypak®

A Rheem® Company

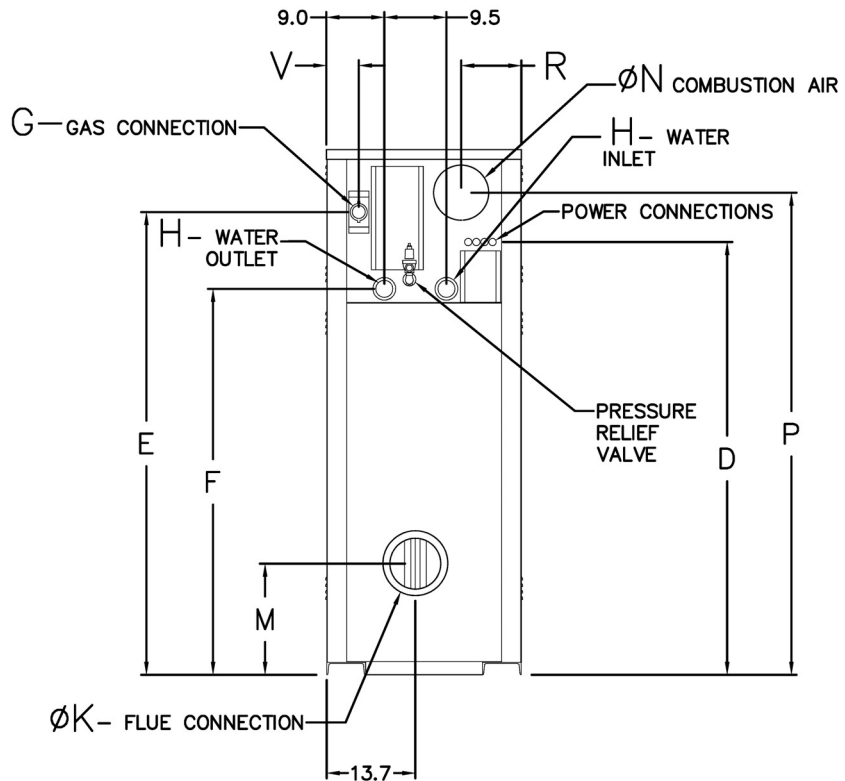
MVB – Type WH

Models 504-2004

Model _____



FRONT VIEW



REAR VIEW

Model (WH1-)	MBTUH		Dimensions (in.)										Ship Weight (Lbs.)	Foot-print (Ft ²)	Amps*		
	Input	Output	B Height	D	E	F	G NPT	H NPT	K Flue Ø	M	N C/A Ø	P				R	V
504	500	420	43	30	35	23-3/4	1	2	8	14-1/8	6	36	8	2	600	5.4	12
754	750	630	49	36	41	29-3/4	1	2	10	16	6	42	8	2	670	5.4	12
1104	1045	888	55	43	47	35-3/4	1-1/4	2-1/2	10	16	6	49	8	2	720	5.4	12
1504	1425	1211	61	50	53	41-3/4	1-1/4	2-1/2	12	18-1/8	8	53	8	2	780	5.4	12
2004	1900	1615	75	61	65	53-3/4	2	2-1/2	14	20-1/8	8	69	9	5	940	5.4	18

- 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 direct vent applications, please contact the factory about relocating the pump.

* Current draw is for heater only.
(Supply breaker must have delayed trip.)

PUMP HP – AMPS*

Model (WH1-)	Water Hardness		
	Soft	Medium	Hard
504	1/4 - 6	1/4 - 6	3/4 - 11
754	1/4 - 6	1/2 - 7	3/4 - 11
1104	1/4 - 6	1/2 - 7	1 - 14
1504	1/2 - 7	1 - 14	1 - 14
2004	1 - 14	1 1/2 - 15	1 1/2 - 15

* Current draw is for pump only

CLEARANCES

	Certified Minimum	Recommended Service
Front	24"	24"
Rear	12"	24"
Right	1"	--
Left	1"	--
Top	0"	10"
Floor	0"	--
Vent	1"	--

Water Hardness															
Soft						Medium					Hard*				
0-4 Grains Per Gallon						5-15 Grains Per Gallon					16-25 Grains Per Gallon**				
Model	ΔT (°F)	GPM	ΔP (ft wc)	MTS (in)	SHL (ft wc)	ΔT (°F)	GPM	ΔP (ft wc)	MTS (in)	SHL (ft wc)	ΔT (°F)	GPM	ΔP (ft wc)	MTS (in)	SHL (ft wc)
504	17	50	3.6	2	8.3	17	50	3.6	2	8.3	9	95	10.4	2	25.7
754	26	50	4.0	2	8.7	17	73	7.8	2	17.3	14	90	11.4	2	25.3
1104	21	85	11.5	2-1/2	16.2	21	85	11.5	2-1/2	16.2	15	116	19.6	2-1/2	27.8
1504	27	94	16.2	2-1/2	21.7	24	105	19.6	2-1/2	26.5	22	115	23.0	2-1/2	31.1
2004	31	108	25.2	2-1/2	32.4	31	108	25.2	2-1/2	32.4	29	118	29.6	2-1/2	38.1

SHL includes 50ft of tubing each way (total 100 ft)

* Must use optional Cupro-nickel heat exchanger

** If over 25 GPG, a water softener MUST be used.

RECOVERY RATES									
Temperature Rise (°F)									
	20	30	40	50	60	70	80	90	100
504	2545	1697	1273	1018	848	727	636	566	509
754	3818	2545	1909	1527	1273	1091	955	848	764
1104	5383	3589	2692	2153	1794	1538	1346	1196	1077
1504	7341	4894	3670	2936	2447	2097	1835	1631	1468
2004	9788	6525	4894	3915	3263	2797	2447	2157	1958

