

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

MVB® - Type P

Pool Heaters

Models 504A-2004A

- 83-83.3% Thermal Efficiency at Full Rate**
- 100% Factory Fire-Tested**
- VERSA IC® Integrated Controller with 7" Color Touchscreen Display**
- Raymote™ remote connectivity provided standard**
- On/Off Operation**
- Full Safety Diagnostics with History**
- Status Display Lights**
- Cascade up to 4 Heaters – No External Sequencer Required**
- CSA Low Lead Certified ≤ .25% Lead**
- Maximum Outlet Water Temperature: 180°F**
- Maximum Pool Setpoint 106°F (104°F Default)**
- Minimum Inlet Water Temperature: 105°F**
- Limited Five-Year Primary Heat Exchanger Warranty**
- Ultra Low NOx, Less Than 20 PPM**



Proudly Assembled in the USA

Heat Exchanger

- Bronze Headers
- ASME HLW Stamped; 160 PSIG MAWP
- National Board Listed
- Cupronickel Fin Tubing
- ASME Powder-Coated Tube Sheet
- Silicone High-Temp O-Rings
- ASME Pressure Relief Valve 125 PSIG – Standard
- Manual Air Bleed
- Temperature and Pressure Gauge, Shipped Loose
- Four pass primary heat exchanger
- Stainless Steel Evaporator Plate
- Heater Pump: Bronze, 120V, 1Ø, 60Hz

Control

- 120V, 60Hz, 1Ø, Power Supply
- 120/24V 60Hz Transformer
- VERSA IC® built-in controller
- 7" color HD touchscreen display
- Raymote™ Wi-Fi remote connectivity
- Ignition Module
 - 3-Try – Standard
 - C-6 Single-Try – Optional
- Remote Flame Sensor
- High Limit Fixed Manual 180°F
- On/Off Power Switch
- Flow Switch
- Blocked Vent Pressure Switch
- Combustion Air Proving Switch
- Freeze Protection
- Pump Switch

- Alarm Dry Contact
- Pump Time Delay
- Blocked Condensate Switch
- Water Temperature Sensors (4)
 - Cold Water Run
 - H-Bypass
- Modbus RTU BMS Port
 - B-85 BMS Gateway – BACnet MS/TP, BACnet IP, N2 Metasys or Modbus TCP
 - B-86 BMS Gateway – LonWorks

Burner

- Hot Surface Ignition (HSI)
- Radially-Fired Knitted Burner

Gas Train

- Fuel
 - Natural Gas
 - Propane (minimum grade HD-5)
- Zero Governor Regulator
- Dual-Seat Combination Valve
- Electronic Firing Mode (P)

Construction

- Indoor/Outdoor Construction
- Front Controls Enclosed
- PolyTuf Powder Coat Finish
- Rear Connections (Water, Gas, Vent, Electrical, Comb. Air, Cond. Drain)
- Combustion Air Filter – Shipped Loose
- Design Certified ANSI Z21.56/CSA 4.3
- Front Connection Low Voltage Wiring
- CSA Low Lead Certified ≤ .25% Lead

Venting

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

Options

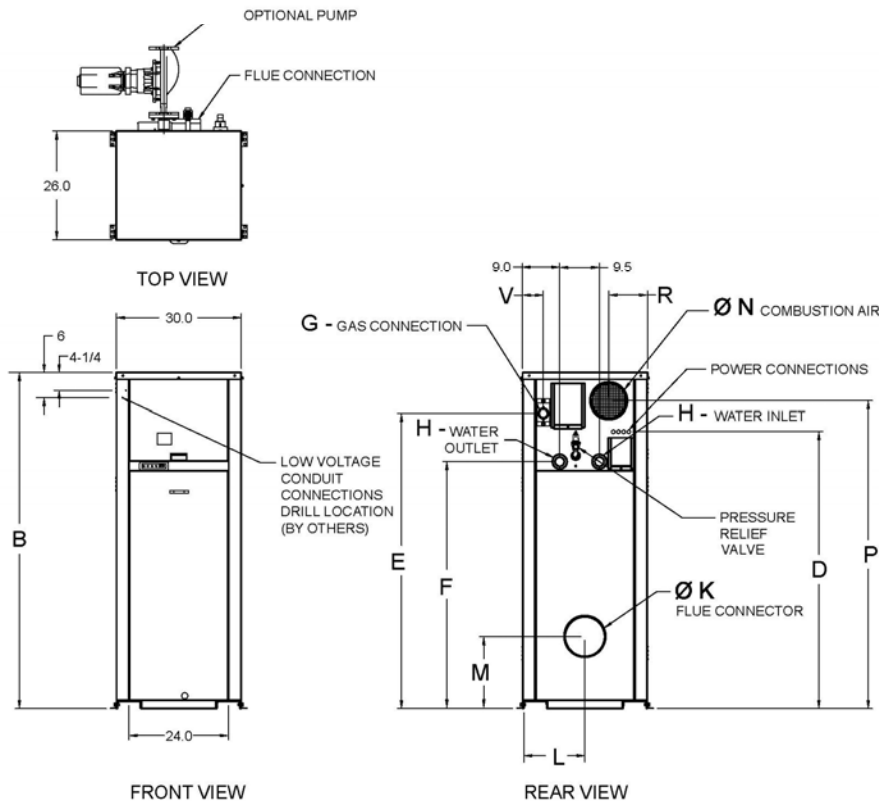
- F-10 Low Water Cut-Off, Remote Probe
- I-3 High Limit, Auto Reset, Adj., 40-180°F
- I-6 High Limit, Manual Reset, Adj., 100-200°F
- S-1 Low Gas Pressure Switch, Manual Reset
- S-2 High Gas Pressure Switch, Manual Reset
- Z-12 Condensate Treatment Kit

Additional Options or Accessories



MVB[®] – Type P Models 504A-2004A

Model _____



CLEARANCES

	Certified Minimum	Recomm. Service
Front	24"	24"
Rear	12"	24"
Right	1"	–
Left	1"	–
Top	0"	10"
Floor	0"	–
Vent	1"	–

Model	With H-Bypass Pump		
	Model	HP	Amps
<input type="checkbox"/> P-504A	1611	1/4	6
<input type="checkbox"/> P-754A	1611	1/4	6
<input type="checkbox"/> P-1104A	1630	1/2	7
<input type="checkbox"/> P-1504A	1634	1	14
<input type="checkbox"/> P-2004A	1636	1-1/2	22

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

Shown without H-Bypass or Cold Water Run options

Model	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	L	M	N C/A Ø	P	R	V			
<input type="checkbox"/> P-504A	500	415	43	30	35	23-3/4	1	2	8	13-3/4	14-1/8	6	36	8	2	600	5.4	12
<input type="checkbox"/> P-754A	750	623	49	36	41	29-3/4	1	2	10	13-1/2	16	6	42	8	2	660	5.4	12
<input type="checkbox"/> P-1104A	1100	916	55	43	47	35-3/4	1-1/4	2-1/2	10	13-1/2	16	6	49	8	2	720	5.4	12
<input type="checkbox"/> P-1504A	1500	1250	61	50	53	41-3/4	1-1/4	2-1/2	12	13-3/4	18-1/8	8	53	8	2	780	5.4	12
<input type="checkbox"/> P-2004A	1900	1583	75	61	65	53-3/4	2	2-1/2	14	13-1/2	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. No hardware changes requires below 10,000 feet.

* For Natural Gas. For Propane, all sizes are 1" NPT.

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

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

Model	RATES OF FLOW								
	20°F ΔT			Minimum Flow			Maximum Flow		
	GPM	ΔP (ft.)	ΔT (°F)	GPM	ΔP (ft.)	ΔT (°F)	GPM	ΔP (ft.)	ΔT (°F)
<input type="checkbox"/> P-504A	N/A	N/A	13	65	5.5	13	100	11.3	9
<input type="checkbox"/> P-754A	65	6.4	20	65	6.4	20	100	13.8	13
<input type="checkbox"/> P-1104A	94	13.6	22	85	11.5	22	113	18.6	17
<input type="checkbox"/> P-1504A	N/A	N/A	25	102	18.7	25	113	22.2	23
<input type="checkbox"/> P-2004A	N/A	N/A	32	102	22.7	32	113	27.2	29

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