

Job: _____

Engineer: _____

Contractor: _____

Prepared By: _____ Date: _____

Model: _____ Indoor/Outdoor: _____ MBTUH Input: _____

Delta Limited® - Type WH

Water Heaters Models 399B-899B

100% Factory Fire Tested

Efficiency: 85%

Maximum Outlet Temperature: 200 °F

Minimum Non-Condensing Inlet Temperature: 105 °F

Thermal Shock Proof Heat Exchanger

Limited Twenty-Year Thermal Shock Warranty

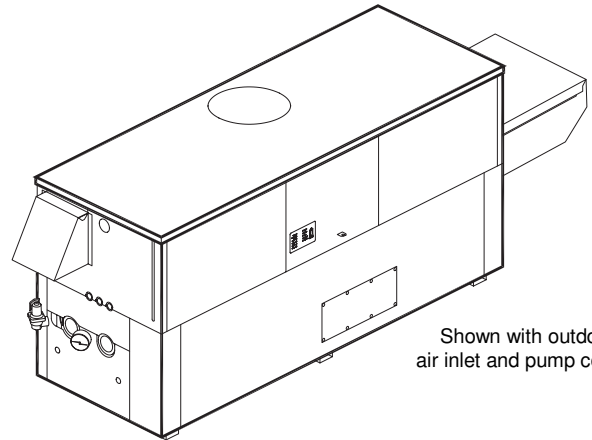
Limited Five-Year Heat Exchanger Warranty

PolyTuf Powder Coated Cabinet

Combustible Floor Shield Required

Fan-Assisted

Patented Burner Security Blanket



Shown with outdoor air inlet and pump covers



Proudly Assembled in the U.S.A.

Heat Exchanger

- ASME HLW Stamp
 - Headers
 - Glass-Lined Cast Iron – Standard
 - Bronze – 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
 - ASME Pressure Relief Valve
 - 125 PSIG – Standard
 - _____ 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% Shut-Off/Lockout
- Hot Surface Ignition
- Remote Flame Sensor
- High Limit Control, Manual Reset
- On/Off Power Switch
- Manual Shut-Off, Front-Mounted Switch
- Flow Switch
- Blocked Vent Pressure Switch
- Combustion Air Proving Switch
- Pump Time Delay Relay, 5 Minute, Fixed
- Status Display Lights

Gas Train

- Manual Gas Shut-Off Valve(s)
- Combination Valves
- Firing Mode
 - On/Off: Model 399B
 - 2 Stage: Models 499B-899B
- Fuel
 - Natural Gas
 - Propane Gas
- Design Certified – ANSI Z21.10.3/CSA 4.3

Burner

- Ultra-Low NOx: Less than 20 PPM

Construction

- Indoor/Outdoor Construction
- Enclosed Front Controls
- CSA Low Lead Certified ≤ 0.25% Lead

Venting

- Vent Location
 - Top, Outdoor – Standard
 - Top, Indoor – Option D-20
 - Rear – Option D-14
- Vent Termination Cap
 - Outdoor D-11
 - Indoor, Horizontal D-15
 - Indoor, Vertical (by others)
- Extractor – Optional
 - By others
 - Not required

Temperature Controls

- B-2 Tankstat, Single-Stage (100-200 °F)
- B-3 Tankstat, 2-Stage (100-200 °F)
- B-___ TempTracker Digital Controller, 2-Stage (Loose)
- B-___ TempTracker Digital Controller, 4-Stage (Loose)

Options

- C-6 Ignition Module, Manual Reset
- F-10 Low Water Cut-Off, Remote Probe
- I-1 High Limit Control, Auto Reset
- P-___ Pump: _____ HP, 120V, 1Ø, 60Hz
Water Hardness: _____ GPG
- Bronze
 - Mounted Loose
 - Front Rear
- 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

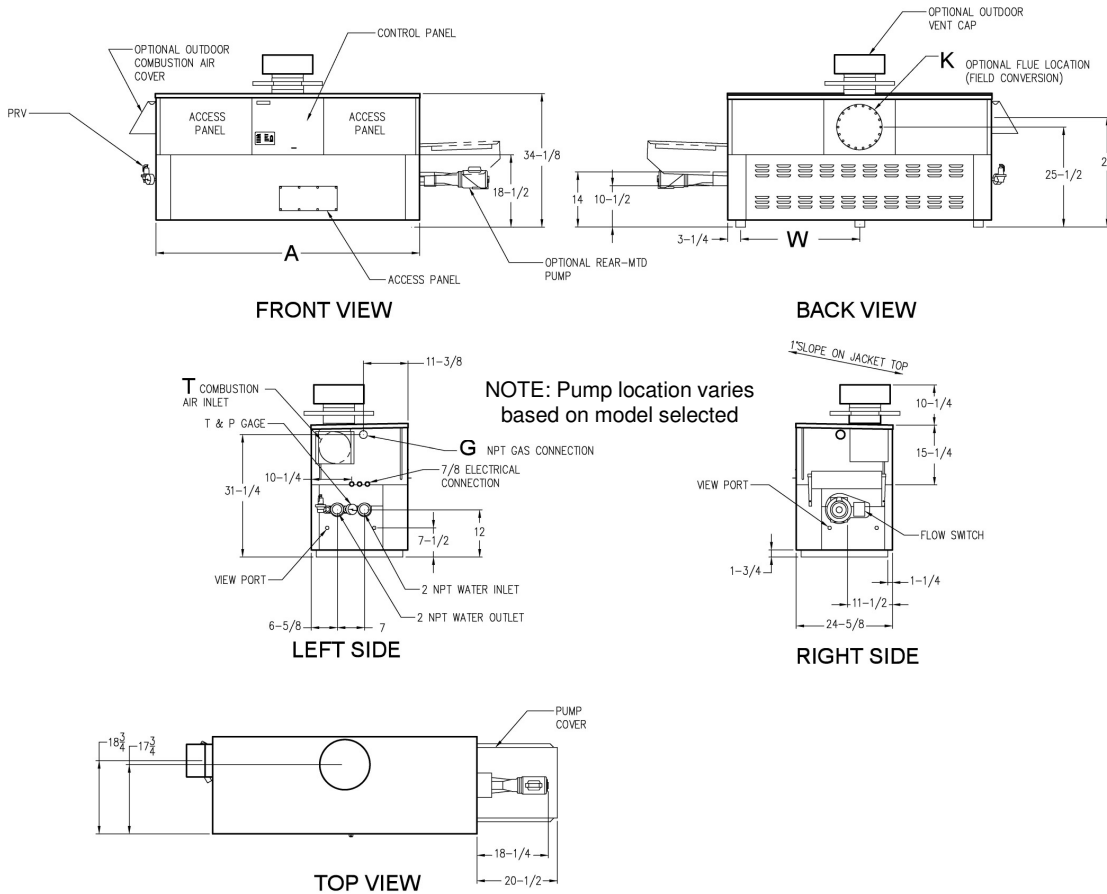


Delta Limited models not approved for use in California

Raypak®
A Rheem® Company

Delta Limited – Type WH Models 399B-899B

Model _____



NOTE: Pump location varies based on model selected

Model	System Flow and Head Loss														
	0-4 Grains Per Gallon					5-15 Grains Per Gallon					16-25** Grains Per Gallon				
	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)
399B	17	40	2.0	2	5.1	13	52	3.4	2	8.4	9	74	6.8	2	16.4
499B	21	40	2.1	2	5.2	16	52	3.5	2	8.6	12	73	6.9	2	16.3
649B	28	40	2.2	2	5.3	20	55	4.1	2	9.7	15	72	7.0	2	16.2
749B	30	42	2.6	2	6.0	17	73	7.5	2	16.9	14	90	11.3	2	25.1
899B	30	51	3.9	2	8.7	21	73	7.8	2	17.2	17	90	11.7	2	25.5

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

** Must use optional cupro-nickel tubes. For hardness exceeding 25 GPG, must use water softener.

SPECIFICATIONS

Model	MBTUH		A Width	G NPT	H NPT	K	T	W	Amp. Draw*	Approx. Shipping Wt. Lbs.
	Input	Output								
399B	399	339	43	3/4	2	6	6	18-1/2	< 6	445
499B	500	425	50	1-1/4	2	6	6	22	< 6	545
649B	650	553	60-1/2	1-1/4	2	8	6	27-1/4	< 6	590
749B	750	638	67-1/2	1-1/4	2	8	6	30-3/4	< 6	675
899B	900	765	78	1-1/4	2	8	6	36	< 7	740

* Pump not included

RECOVERY RATES (GPH)

Model	Temperature Rise in °F								
	20°	30°	40°	50°	60°	70°	80°	90°	100°
399B	2055	1370	1028	822	685	587	514	457	411
499B	2576	1717	1288	1030	859	736	644	572	515
649B	3348	2232	1674	1339	1116	957	837	744	670
749B	3864	2576	1932	1545	1288	1104	966	859	773
899B	4636	3091	2318	1855	1545	1325	1159	1030	927

Dimensions are in inches.

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. Recommended natural gas supply pressure is 7 – 10.5" WC. Recommended propane gas supply pressure is 11 - 13" WC.

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