



**Product Submittal for Hi Delta SS® - Type WH
Water Heater
Models HD101-HD401**

Date: _____ Job: _____ Location: _____
Equipment Tags: _____ Engineer: _____ Contractor: _____
Model: _____ Notes: _____ Gas Type: Natural Gas or Propane
Prepared by: _____ Indoor Outdoor

- TruSeal® direct vent
- Sealed combustion chamber
- 100% factory fire tested
- 85% thermal efficiency for copper finned units
- 83% thermal efficiency for cupronickel finned units
- Maximum outlet temperature: 200°F
- Minimum non-condensing inlet temperature: 105°F
- Thermal shock proof heat exchanger
- Limited 20-year thermal shock warranty
- Limited 5-year copper heat exchanger warranty
- Limited 10-year cupronickel heat exchanger warranty
- Status display LED's
- PolyTuf powder-coated cabinet
- No combustibile floor shield required
- Fan-assisted – ultra-low NOx (<20 ppm nat.)
- Patented burner security blanket
- Proudly assembled in the USA



Features and Options

Heat Exchanger

- ASME HLW-stamped; 160 PSIG MAWP

Headers

- Bronze headers
- National Board registered
- Fin tubing
 - Copper finned tubing (standard)
 - Cupronickel finned tubing (optional)
- ASME steel tube sheet
- Silicone high temp O-rings
- ASME pressure relief valve
 - 125 PSIG (standard)
 - A-16 150 PSIG
- T&P gauge (shipped loose)
- Flow switch – mounted
- Left-hand water (standard)
 - A-6 Right-hand water optional

Power

- 120V, 60Hz, 1Ø, Power supply
- 120/24V, 60Hz, Transformer

Control

- 100% Shut-off/lockout
- Hot surface ignition (HSI)
- Remote flame sensor
- High limit, manual-reset, fixed 200°F
- On/Off power switch
- Blocked vent pressure switch
- Combustion air proving switches (2)
- Economaster pump relay, 5 or 10 min.

Gas Train

- 4" WC minimum pressure
- Combination valve
- Firing Mode On/Off (WH1)
- Fuel
 - Natural gas
 - Propane gas (minimum grade HD-5)
- Ultra-Low NOx (<20 ppm Nat.)

Construction

- Design certified ANSI Z21.10.3 / CSA 4.3
- Indoor/Outdoor construction

- Slide-out controls tray
- Front controls enclosed
- PolyTuf powder-coat finish
- TruSeal® direct vent
- Integral combustion air filter
- CSA low-lead certified ≤ .25% lead

Venting

- D-11 Vent termination, outdoor
- D-12 Barometric damper
- D-15 Sidewall vent termination
- D-18 Boiler vent adapter (Cat III/IV)
- D-19 Vent termination adapter (Cat III/IV)
- D-20 Vertical vent termination (Cat I)
- Combustion air - ducted
 - D-16 Intake air elbow

Temperature Controls

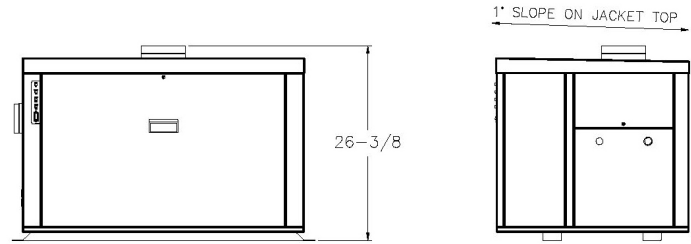
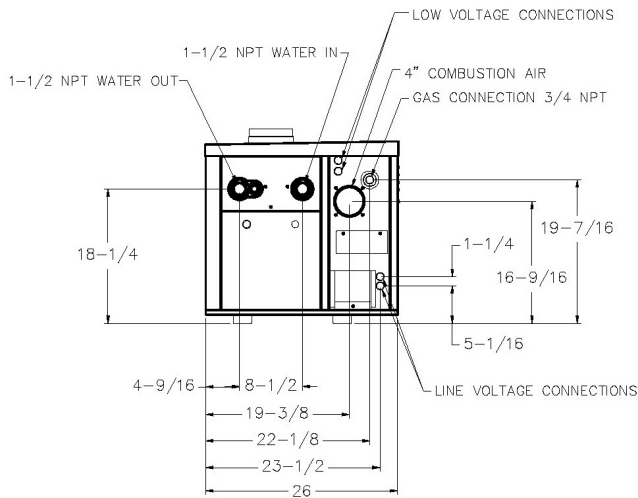
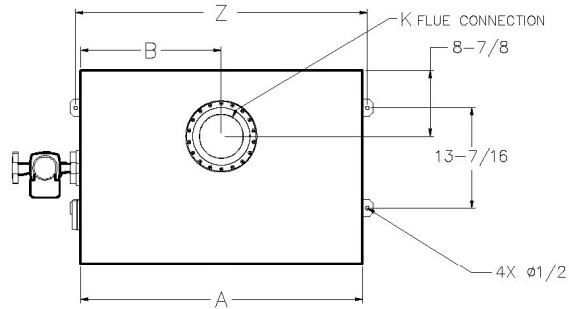
- B-2 1-Stage controller, 100-200°F (loose)
- B-3 2-Stage controller, 100-200°F (loose)
- B-26 Two-stage digital controller
 - Factory-mounted
 - Shipped loose
- B-21 Four-stage digital controller
- B-28 On/off digital controller
 - Factory-mounted
 - Shipped loose

Options

- E-5 Alarm with bell
 - 3" bell
 - 4" bell
- F-10 Low water cut-off, remote probe
- High limit, adj. manual-reset 200°F max.
- High limit, fixed, auto-reset 180°F max.
- High limit, fixed, auto-reset 200°F max.
- P__ Pump: ____ HP, 120V, 1Ø, 60Hz
 - Bronze Mounted
 - Cast Iron Loose
- P__ Cold water protection (see 1000.19)
- S-1 / S-2 Low and high gas pressure switches (factory-mounted)
- Z-4 T&P relief valve (shipped-loose)

Job: _____

Heater Pump HP - Amps			
Model	Water Hardness		
	Soft	Medium	Hard
HD101	1/8 - 1.1	1/8 - 1.3	1/4 - 1.6
HD151	1/8 - 1.1	1/8 - 1.3	1/4 - 1.6
HD201	1/8 - 1.1	1/8 - 1.3	1/4 - 1.6
HD251	1/8 - 1.1	1/8 - 1.3	1/4 - 1.6
HD301	1/8 - 1.1	1/8 - 1.3	1/4 - 1.6
HD401	1/8 - 1.1	1/8 - 1.3	1/4 - 1.6



SPECIFICATIONS								Approx. Shipping Wt. Lbs. (Kgs.)
Model	MBTUH (kW/h)		Dimensions				Heater Amps	
	Input	Output	A Inches (mm)	B Inches (mm)	K Inches (mm)	Z Inches (mm)		
<input type="checkbox"/> HD101	100 (29)	83 (24)	18-9/16 (471)	9-1/4 (235)	4 (102)	19-15/16 (506)	<5	150 (68)
<input type="checkbox"/> HD151	150 (44)	125 (36)	21-7/8 (555)	10-7/8 (276)	4 (102)	23-3/16 (589)	<5	175 (79)
<input type="checkbox"/> HD201	199 (58)	165 (48)	25-1/16 (636)	12-1/2 (317)	5 (127)	26-7/16 (672)	<5	200 (91)
<input type="checkbox"/> HD251	250 (73)	208 (61)	28-5/16 (719)	14-1/8 (359)	5 (127)	29-11/16 (754)	<5	225 (102)
<input type="checkbox"/> HD301	299 (88)	248 (73)	31-9/16 (802)	15-3/4 (400)	5 (127)	32-15/16 (837)	<5	250 (113)
<input type="checkbox"/> HD401	399 (117)	331 (97)	38-1/16 (967)	19 (483)	6 (152)	39-7/16 (1002)	<5	300 (136)



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Job: _____

RATES OF FLOW AND PRESSURE DROPS															
Model	Soft (0-4 GPG)					Medium (5-15 GPG)					Hard (16-25 GPG)				
	ΔT °F (°C)	GPM (L/min)	ΔP (FT)	MTS	SHL	ΔT °F (°C)	GPM (L/min)	ΔP (FT)	MTS	SHL	ΔT °F (°C)	GPM (L/min)	ΔP (FT)	MTS	SHL
<input type="checkbox"/> HD101	9 (5)	20 (76)	1.8	1-1/2	3.8	7 (4)	26 (98)	3.0	1-1/2	6.3	4 (2)	45 (170)	9.2	1-1/2	18.0
<input type="checkbox"/> HD151	13 (7)	20 (76)	1.8	1-1/2	3.8	10 (5)	26 (98)	3.1	1-1/2	6.3	6 (3)	45 (170)	9.2	1-1/2	18.1
<input type="checkbox"/> HD201	17 (9)	20 (76)	1.9	1-1/2	3.9	13 (7)	26 (98)	3.2	1-1/2	6.4	8 (4)	45 (170)	9.4	1-1/2	18.2
<input type="checkbox"/> HD251	21 (12)	20 (76)	1.9	1-1/2	3.9	16 (9)	26 (98)	3.2	1-1/2	6.5	9 (5)	45 (170)	9.6	1-1/2	18.5
<input type="checkbox"/> HD301	25 (14)	20 (76)	1.9	1-1/2	3.9	20 (11)	26 (98)	3.2	1-1/2	6.5	11 (6)	45 (170)	9.8	1-1/2	18.7
<input type="checkbox"/> HD401	34 (19)	20 (76)	2.0	1-1/2	4.0	26 (14)	26 (98)	3.3	1-1/2	6.6	15 (8)	45 (170)	10.3	1-1/2	19.1

NOTES:

- Rates shown are for natural or propane gas, and elevations up to 2,000 feet. For installations above 2,000 feet, please contact manufacturer.
- Recommended natural gas pressure is 4.0 – 10.5" WC. Recommended propane gas pressure is 11 - 13" WC.
- Basis for minimum flow is 13 GPM 40°F ΔT.
- GPG = Grains Per Gallon
- With Hard Water (16-25 grains per gallon), the operating control must be set no higher than 130°F (54°C) for scale-free operation. For operating temperatures above 130°F (54°C), a water softener must be utilized.
- SHL includes 50 ft of tubing each way (total 100 ft)

WATER HEATER RECOVERY RATES (GPH)

Model	Temperature Rise in °F								
	20°	30°	40°	50°	60°	70°	80°	90°	100°
HD101	498	332	249	199	166	142	124	111	100
HD151	747	498	374	299	249	213	187	166	149
HD201	991	660	496	396	330	283	248	220	198
HD251	1245	830	623	498	415	356	311	278	249
HD301	1489	993	745	596	496	426	372	331	298
HD401	1987	1325	994	795	663	568	497	442	398