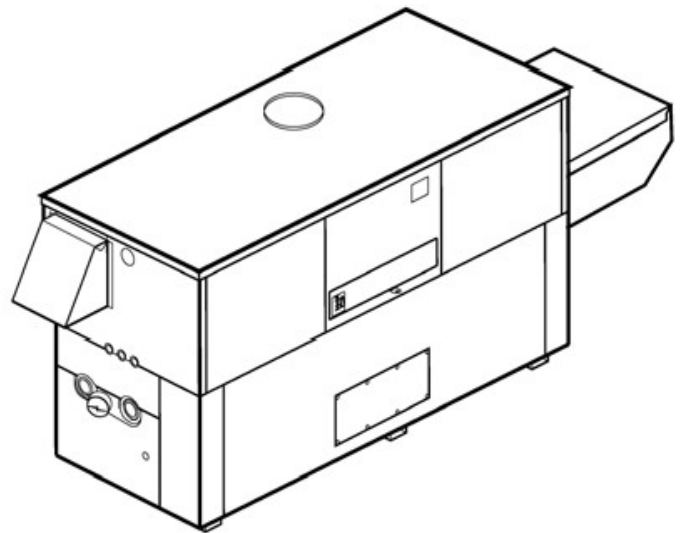




**Product Submittal for Hi Delta®- Type WH  
Water Heater  
Models 302C-902C**

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

- 100% Factory Fire-Tested
- Thermal Efficiency: up to 85%
- Versa IC® Controller with LCD Display
- Maximum Setpoint: 150°F (65.6°C)
- Maximum Outlet Temperature: 200°F (93.3°C)
- Minimum Non-Condensing Inlet Temperature: 105°F (40.6°C)
- Thermal Shock Proof Heat Exchanger
- Limited 20-year Thermal Shock Warranty
- Limited 10-year Cupronickel Heat Exchanger Warranty
- Limited 5-year Copper Heat Exchanger Warranty
- Full Safety Diagnostics with Fault History
- PolyTuf Powder-Coated Cabinet
- No Combustible Floor Shield Required
- Fan-Assisted
- Patented Burner Security Blanket
- SCAQMD Rule 1146.2 certified, Low NOx < 20 ppm (992C-2002C)
- Cascade up to 8 heaters – No External Sequencer Required
- Cascade in Parallel or Sequential Modulation Modes
- Proudly Assembled in the USA



**Features and Options**

**Heat Exchanger**

**Headers**

- ASME HLW Stamped; 160 PSIG MAWP
- Headers
  - Bronze (standard)
  - A-2 Glass-lined cast iron
- National board registered
- Fin Tubing
  - Copper (standard) 85%
  - Cupronickel 83.1%
- ASME Steel tube sheet
- Silicone high-temp. O-rings
- ASME Pressure relief valve
  - 125 PSIG (standard)
  - \_\_\_\_\_ PSIG (optional)
- T&P gauge
- Water connections
  - Left hand (Standard)
  - A-6 Right hand

**Power**

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

**Control**

- VERSA IC® integrated control
- 100% Shutoff/lockout
- Hot surface ignition (HSI)
- Parallel and sequential modulation cascade modes
- Water temperature sensors 10kΩ (2 mtd, 1 loose, 1 well)
- Ignition module
  - 3-Try (Standard)
  - C-6 Single-Try
- Remote flame sensor
- High limit, manual reset, fixed 240°F (115.6°C)
- On/Off power switch
- Flow switch
- Blocked vent pressure switch
- Combustion air proving switch
- Programmable pump time delays

- Heater
- Recirculation
- Enable/Disable
- LCD Display; status, fault and diagnostics
- LCD Display; status, fault and diagnostics
- Cold water protection function
  - Optional CWR variable-speed pump (See Cat. 2000.49)
- Modbus RTU BMS Port (Up to 115K baud rate)
  - B-85 – BMS Gateway – BACnet MS/TP, BACnet IP, N2 Metasys or Modbus TCP
  - B-86 – BMS Gateway – LonWorks

**Gas Train**

- Manual gas shutoff valve(s)
- Combo valve(s)
- WH3 2-stage firing mode
- Fuel
  - Natural gas
  - Propane gas (minimum grade HD-5)
  - G-20 4" WC Nat Supply
- Design certified ANSI Z21.13/CSA 4.9

**Construction**

- Indoor/outdoor construction
- Front controls enclosed
- Powder coat finish
- CSA low-lead certified (≤ .25% Lead)

**Venting**

- Vent Category I/III cupronickel
- Vent Category II/IV copper
- Vent Location
    - Top (Standard)
    - D-14 rear flue exhaust tee
  - Vent Termination
    - D-11 Vent termination, outdoor
    - D-15 Vent termination, sidewall (Cat III & IV horizontal)
    - D-20 Vent termination Vertical (Cat I)
  - Combustion Air
    - D-16 Air intake elbow (Indoor only)
    - D-17 Inline air intake filter (used with Truseal™)

- D-18 Boiler vent adapter (Cat III & IV)
- D-19 Vent termination cap adapter (Cat III & IV)
- D-21 Truseal™ direct vent air intake (Factory Installed)
- D-22 Truseal™ direct vent air intake (Field Installed) (\*requires D-17 Inline Filter Kit)
- D-23 Outdoor vent supports
- D-37 Motorized combustion air damper

**Options**

- F-10 Low water cut-off, remote probe
- I-5 High limit, manual reset, 200°F (93.3°C) max
- I-13 High limit, auto reset, 200°F (93.3°C) max
- P\_ Pump: \_\_\_\_\_ HP, 120V, 1Ø, 60Hz
  - Cast Iron  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 above-ground reinforcing add-on

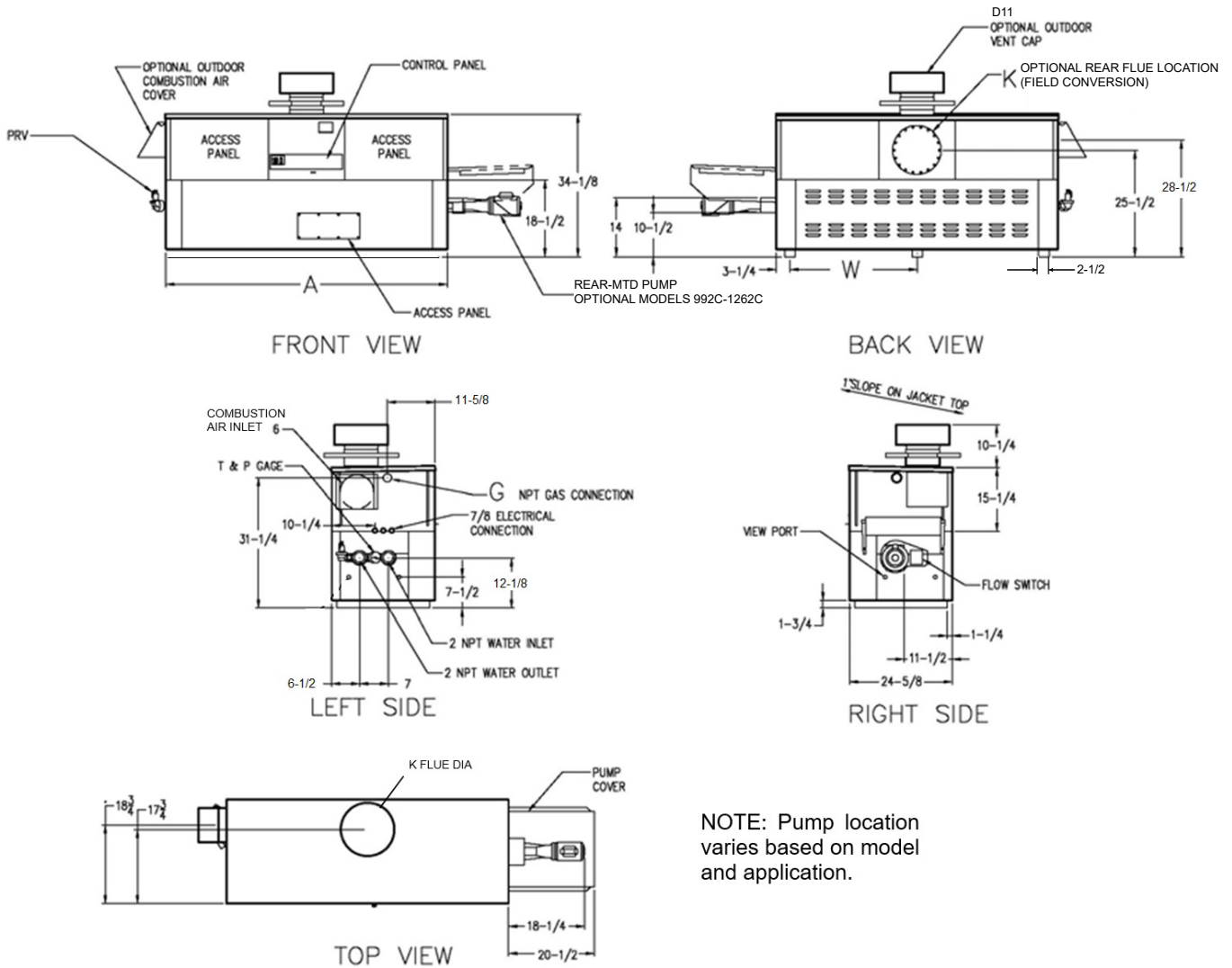
**Additional Options or Accessories**

\_\_\_\_\_

**Multi-Boiler Temperature Controllers**

- TempTracker Mod+ Hybrid
  - B-36 2-4 Heaters
  - B-37 5-10 Heaters
  - B-38 11-16 Heaters
  - B-39\* EMS 4-20 mA Remote Setpoint Interface Module
  - B-62\* BACnet MS/TP Interface (\*requires B-36 to B-38)

Job: \_\_\_\_\_



NOTE: Pump location varies based on model and application.

SPECIFICATIONS									Approx. Shipping Wt. Lbs. (Kg)
Model	MBTUH (kW)			Dimensions In. (mm)					
	Input	Output 85%	Output 83.1%	A Width	Gas Connection G NPT	Flue Collar K	W	Amp. Draw*	
<input type="checkbox"/> 302C	300 (88)	255 (75)	249 (73)	36 (914)	3/4 (19)	5 (127)	14-3/4 (375)	6	380 (172.3)
<input type="checkbox"/> 402C	399 (117)	339 (99)	332 (97)	43 (1092)	3/4 (19)	6 (152)	18-1/2 (470)	6	445 (201.8)
<input type="checkbox"/> 502C	500 (147)	425 (125)	416 (122)	50 (1270)	1-1/4 (32)	6 (152)	22 (559)	6	545 (247.2)
<input type="checkbox"/> 652C	650 (190)	553 (162)	540 (158)	60-1/2 (1537)	1-1/4 (32)	8 (203)	27-1/4 (692)	6	590 (267.6)
<input type="checkbox"/> 752C	750 (220)	638 (187)	623 (183)	67-1/2 (1715)	1-1/4 (32)	8 (203)	30-3/4 (781)	6	675 (306.1)
<input type="checkbox"/> 902C	900 (264)	765 (224)	748 (219)	78 (1981)	1-1/4 (32)	8 (203)	36 (914)	7	740 (335.6)

\*Without pump

NOTES:  
 1. Dimensions are in inches  
 2. Rates shown are for natural or propane gas, and elevations up to 4,500 feet. De-rate above 4,500 ft.  
 3. Required natural gas supply pressure is 5.6" - 10.5" WC. Required propane gas supply pressure is 11 - 13" WC.



Product Submittal for Hi Delta®- Type WH

Job: \_\_\_\_\_

Domestic Water Heater Flow Rate Requirements															
Model	Soft* (3-4 grains per gallon)					Medium (5-15 grains per gallon)					Hard* (16-25** grains per gallon)				
	ΔT °F (°C)	GPM (L/min)	ΔP (FT WC)	MTS in (mm)	SHL (FT WC)	ΔT °F (°C)	GPM (L/min)	ΔP (FT WC)	MTS in (mm)	SHL (FT WC)	ΔT °F (°C)	GPM (L/min)	ΔP (FT WC)	MTS in (mm)	SHL (FT WC)
<input type="checkbox"/> 302C	13 (7.2)	40 (152)	2.0	2 (51)	5.1	10 (5.5)	52 (197)	3.3	2 (51)	8.3	7 (3.8)	74 (280)	6.6	2 (51)	16.3
<input type="checkbox"/> 402C	17 (9.4)	40 (152)	2.0	2 (51)	5.1	13 (7.2)	52 (197)	3.4	2 (51)	8.4	9 (4.9)	74 (280)	6.8	2 (51)	16.4
<input type="checkbox"/> 502C	21 (11.6)	40 (152)	2.1	2 (51)	5.2	16 (8.8)	52 (197)	3.5	2 (51)	8.6	12 (6.6)	73 (277)	6.9	2 (51)	16.3
<input type="checkbox"/> 652C	28 (15.5)	40 (152)	2.2	2 (51)	5.3	20 (11.1)	55 (208)	4.1	2 (51)	9.7	15 (8.3)	72 (273)	7.0	2 (51)	16.2
<input type="checkbox"/> 752C	30 (16.6)	42 (159)	2.6	2 (51)	6.0	17 (9.4)	73 (277)	7.5	2 (51)	16.9	14 (7.7)	90 (341)	11.3	2 (51)	25.1
<input type="checkbox"/> 902C	30 (16.6)	51 (193)	3.9	2 (51)	8.7	21 (11.6)	73 (277)	7.8	2 (51)	17.2	17 (9.4)	90 (341)	11.7	2 (51)	25.5

\*Must utilize optional cupronickel tubes.

\*\* If over 25 grains per gallon, a water softener/treatment system must be utilized.

Model	83.1 % Recovery Rates									
	20°	30°	40°	50°	60°	70°	80°	90°	100°	
<input type="checkbox"/> 302C	1511	1007	755	604	504	432	378	336	302	
<input type="checkbox"/> 402C	2010	1340	1005	804	670	574	502	447	402	
<input type="checkbox"/> 502C	2518	1679	1259	1007	839	709	630	560	504	
<input type="checkbox"/> 652C	3274	2182	1637	1309	1091	935	818	727	655	
<input type="checkbox"/> 752C	3777	2518	1889	1511	1259	1079	944	839	755	
<input type="checkbox"/> 902C	4533	3022	2266	1813	1511	1295	1133	1007	907	

Model	85 % Recovery Rates									
	20°	30°	40°	50°	60°	70°	80°	90°	100°	
<input type="checkbox"/> 302C	1545	1030	773	618	515	442	386	343	309	
<input type="checkbox"/> 402C	2055	1370	1028	822	685	587	514	457	411	
<input type="checkbox"/> 502C	2576	1717	1288	1030	859	736	644	572	515	
<input type="checkbox"/> 652C	3348	2232	1674	1339	1116	957	837	744	670	
<input type="checkbox"/> 752C	3864	2576	1932	1545	1288	1104	966	859	773	
<input type="checkbox"/> 902C	4636	3091	2318	1855	1545	1325	1159	1030	927	