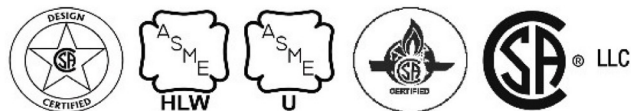




**Product Submittal for XTherm®- Type WH
Water Heater
Models 1005A-2005A**

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

- 97% Thermal efficiency at full rate
- 100% Factory fire-tested
- VERSA IC® modulating controller with 7" color touchscreen display
- Raymote™ remote connectivity provided standard
- Soft-start ignition; 60% minimum fire
- Full safety diagnostics with history
- Status display lights
- Cascade up to 8 heaters – no external sequencer required
- Modbus RTU BMS Port
- Maximum outlet water temperature: 180°F (82°C)
- Maximum tank setpoint: 160°F (71°C)
- Limited 25-year thermal shock warranty
- Limited 5-year copper/10-year cupronickel primary heat exchanger warranty
- Limited 10-year secondary heat exchanger warranty
- SCAQMD Rule 1146.2 certified, Low NOx < 20 ppm
- Must be used in conjunction with a storage tank for proper operation
- Proudly assembled in the USA



Features and Options

Heat Exchanger

- Bronze headers
- ASME HLW stamped; 160 PSIG MAWP
- National board registered
- Fin tubing
 - Copper (standard)
 - A-3 cupronickel
- ASME powder-coated tube sheet
- Silicone high-temp O-Rings
- ASME pressure relief valve
 - 125 PSIG (standard)
 - ____ PSIG (optional)
- Air bleed valve, manual (2)
- T&P gauge
- Four-pass primary heat exchanger
- Secondary stainless steel condensing heat exchanger - U stamped
- Stainless steel evaporator plate
- Boiler pump: bronze, 120V, 1Ø, 60Hz
- Water hardness: _____ GPG

Power

- 120V, 60Hz, 1Ø, power supply
- 120/24V, 60Hz, transformer

Control

- VERSA IC® built-in controller
- 7" color HD touchscreen display
- Raymote™ Wi-Fi remote connectivity
- Cascade up to 8 heaters
- Ignition module
 - 3-Try (standard)
 - C-6 Single-try
- Remote flame sensor
- Fixed high limit, manual reset, 200°F
- On/off power switch
- Flow switch
- Blocked vent pressure switch
- Freeze protection
- Alarm dry contact
- Pump outputs – pilot duty system
- Programmable pump time delays
- Water temperature sensor 10KΩ (2 mtd, 1 loose, 1 well)

- Cold water protection
- Blocked condensate switch
- Modbus RTU BMS Port (Up to 115K baud rate, see Cat. 5000.73)
 - B-85 BMS Gateway, Modbus RTU to Modbus TCP, N2 Metasys, BACnet IP, or BACnet MS/TP
 - B-86 BMS Gateway, Modbus RTU to LonWorks

Burner

- Hot surface ignition (HSI)
- Radially-fired knitted burner

Gas Train

- Fuel
 - Natural gas
 - Propane (minimum grade HD-5)
- Dual-seat combination valve
- Electronic modulating firing mode (WH7)

Construction

- Indoor/outdoor construction
- Enclosed front controls
- PolyTuf powder coat finish
- Rear connections (water, gas, vent, combustion air, condensate drain)
- Design certified ANSI Z21.10.3/CSA 4.3
- CSA Low-lead certified ≤ .25% lead
- Front connection low-voltage wiring

Venting, cat IV

- D-11 Vent termination, outdoor
- D-15 Vent termination, sidewall
- D-18 Adapter, boiler flue
- D-19 Adapter, vent termination
- D-32 Adapter, PVC vent, with vent temp limit, max return temp 170°F (Factory-mounted only)
- D-33 Adapter, Centrotherm™ polypro vent, with vent temp limit, max return temp 190°F (shipped loose)
- D-37 Motorized combustion air damper

Options

- B-31 Sensor well assembly (can be used for tank or system sensor)
- E-5 Boiler alarm with 4" bell
 - factory mounted
 - shipped loose
- E-15 Alarm with buzzer
 - factory mounted
 - shipped loose
- F-10 Low water cut-off, manual reset & test button
- I-5 High limit, adj. manual reset, 200°F max
- I-13 High limit, adj. auto reset, 200°F max
- I-14 High limit, adj. auto reset, 180°F max
- I-20 High limit, adj. manual reset, 180°F max
- M-1 Safety valve, motorized
- M-10 Safety valve, solenoid
- M-15 Safety valve, vent valve (requires M-1 or M-10)
- S-1 Low gas pressure switch, manual reset
- Z-4 T & P relief valve
- Z-9 Thermometer
- Z-12 Condensate treatment kit

TempTracker Mod+ Hybrid multi-unit controllers

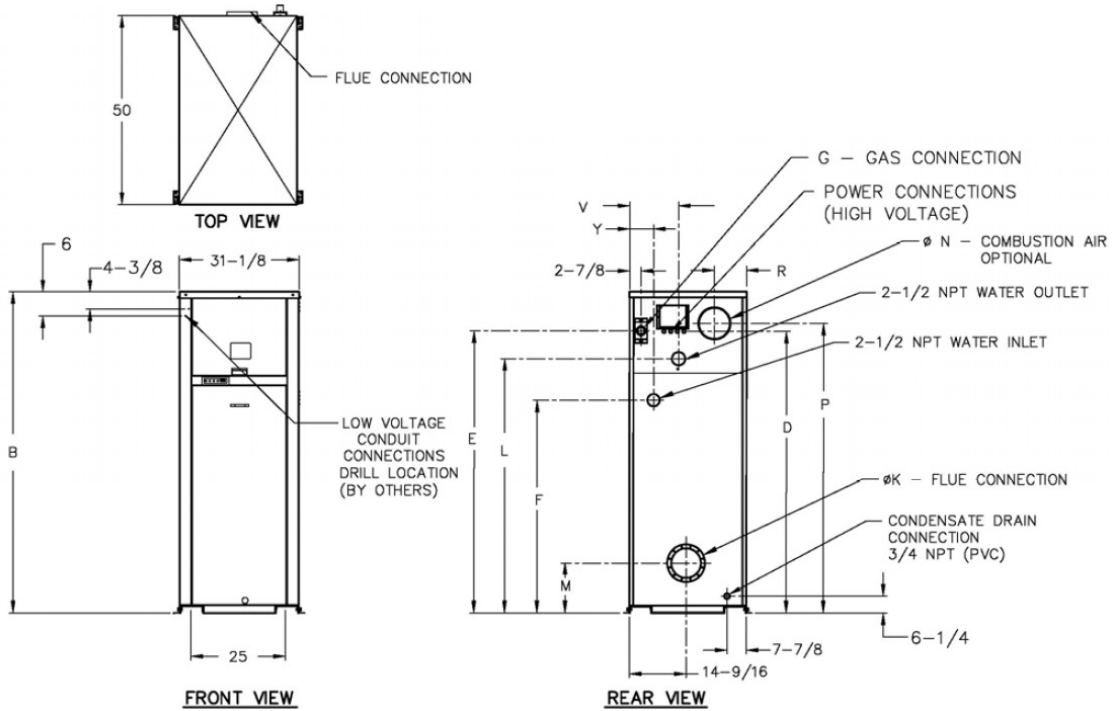
(shipped loose)

- B-36 2-4 heaters
- B-37 5-10 heaters
- B-38 11-16 heaters
- B-39* EMS 4-20 mA remote setpoint interface
- B-62* BACnet interface module (*requires B-36 to B-38)

Additional options or accessories

- _____

*NOTE: Must be used in conjunction with storage tank for proper operation.



Model (WH7-)	MBTUH (kW/h)		Dimensions - inches (mm)													Ship Weight Lbs. (Kg)
	Input	Output	B Height	D	E	F	G ⁽¹⁾ NPT	K Flue Ø	L	M	N C/A Ø	P	R	V	Y	
<input type="checkbox"/> 1005A	999 (293)	969 (284)	55-1/4 (1403)	45 (1143)	47 (194)	37 (940)	1-1/4 (32)	6 (152)	41 (1041)	11-1/2 (292)	6 (152)	47-1/8 (1197)	8-5/16 (211)	13 (330)	6-1/4 (159)	1065 (483)
<input type="checkbox"/> 1505A	1500 (440)	1455 (426)	67-1/8 (1705)	57 (1448)	59 (1499)	38-5/8 (981)	1-1/4 (32)	8 (203)	53 (1346)	12-5/8 (321)	8 (203)	59-1/8 (1197)	8-3/16 (208)	13 (330)	6-1/4 (159)	1234 (560)
<input type="checkbox"/> 2005A	1999 (586)	1939 (568)	81-1/8 (2061)	71 (1803)	72 (1829)	39-5/8 (1007)	2 (50)	8 (203)	65-1/2 (1664)	12-5/8 (321)	8 (203)	73-1/8 (1857)	8 3/16 (208)	10 (254)	6-1/2 (165)	1461 (663)

(1) For natural gas. Propane all sizes 1" NPT.
 Ratings shown are for elevations up to 4,500 ft. De-rate above 4,500 ft; consult factory. No hardware changes required below 10,000 ft.
 For direct vent applications, please contact the factory about relocating the pump.

CLEARANCES		
Heater Side	Minimum Clearances from Combustible Surfaces in. (mm)	Minimum Service Clearance in. (mm)
Floor	0	0
Rear	12" (305)	36" (914)
Right Side	1" (25)	24" (610)
Left Side	1" (25)	1" (25)
Top	Unobstructed	0
Front	Open	24" (610)
Vent	1" (25)	1" (25)

POWER REQUIREMENTS – AMPS*				
Model (WH7-)	Heater Amp Draw*	Pump Amp Draw*		
		Soft 1-4 Gr.	Medium 5-15 Gr.	Hard 16-25 Gr.
<input type="checkbox"/> 1005A	12**	10	10	14
<input type="checkbox"/> 1505A	12**	10	14	17
<input type="checkbox"/> 2005A	18**	17	17	N/A

* Separate power connections are factory-supplied and separate supply breakers must be field-supplied.
 ** Current draw is for heater only (Supply breaker must have delayed trip).



Product Submittal for XTherm® - Type WH

Job: _____

Model	RECOVERY RATES (GPH) at stated ΔT (°F) (L/H)									
	20°F	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F
<input type="checkbox"/> 1005A	5873 (22231)	3915 (14819)	2936 (11113)	2349 (9232)	1958 (7411)	1678 (6351)	1468 (5556)	1305 (4939)	1175 (4447)	1068 (4042)
<input type="checkbox"/> 1505A	8818 (33379)	5879 (22254)	4409 (16689)	3527 (13351)	2939 (11125)	2519 (9535)	2205 (8346)	1960 (7419)	1764 (6677)	1603 (6068)
<input type="checkbox"/> 2005A	11752 (44486)	7834 (29654)	5876 (22243)	4701 (17795)	3917 (14827)	3358 (12711)	2938 (11121)	2611 (9883)	2350 (8895)	2137 (8089)