

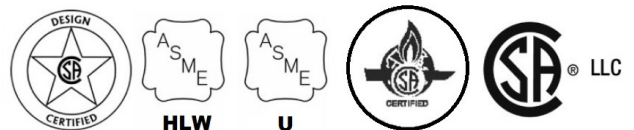


IN REVIEW Product Submittal for XTherm®- Type P
Pool Heater
Models 2505-4005

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

The XTherm combines the proven capability of a finned cupronickel heat exchanger with a stainless steel condensing heat exchanger to maximize thermal efficiency and provide long-term reliability.

97% thermal efficiency at full rate
100% factory fire-tested
VERSA IC® integrated controller with 7" color touchscreen display
Raymote™ remote connectivity provided standard
Full safety diagnostics with history
Status display lights
Cascade up to 8 heaters – no external sequencer required
Maximum water setpoint: 106°F (41°C)
Minimum inlet water temperature: 50°F (10°C)
Maximum pool setpoint: 106°F (41°C) (104°F (40°C) default))
Limited 25-year thermal shock warranty
Limited 5-year primary heat exchanger warranty
Limited 10-year secondary heat exchanger warranty
On/off operation
BAAQMD Rule 9-7 certified, Ultra-Low NOx < 30 ppm
Primary/secondary plumbing mandatory for proper operation
Proudly assembled in the USA



Job: _____

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

- ☐ 208V, 60Hz, 1Ø, power supply (standard)
- ☐ 240V, 60Hz, 1Ø, power supply (field wiring)

Control

- VERSA IC® 7" (178 mm) color HD touchscreen display
- Raymote™ Wi-Fi remote connectivity
- Cascade up to 8 heaters
- Cascade interstage delay settings
- Ignition Module
 - ☐ 3-Try (standard)
 - ☐ C-6 Single-try
- Remote flame sensor
- High limit, manual reset, fixed, 150°F
- 240/120V, 60Hz, transformer
- 240/24V, 60Hz, transformer
- On/Off power switch
- Flow switch
- Blocked vent pressure switch
- Freeze protection
- Alarm dry contact

- High gas pressure switch
- Pump outputs - pilot duty
 - Injection pump
 - System
- Programmable pump time delays
- Water temperature sensors 10kΩ (2 mtd, 1 loose, 1 well)
- Sensor wells
 - Shipped loose (2)
- Cold water protection
- Modbus RTU BMS Port (Up to 115K baud rate, see installation and operating manual, P/N 241515)
 - ☐ 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
- Manual shutoff firing valve

Construction

- Indoor/outdoor construction
- Enclosed front controls
- PolyTuf powder-coat finish
- Rear connections (water, gas, vent, electrical, combustion air)
- Combustion air filter
- Front connection - low-voltage wiring
- Design certified ANSI Z21.56/CSA 4.3

Venting, cat IV

- ☐ D-11 Outdoor stack
- ☐ D-15 Vent termination, cap (horizontal)
- ☐ D-19 Flue exhaust termination cap adapter
- ☐ D-23 Flue exhaust vent support
- ☐ D-33 Adapter, Centrotherm™ polypro (shipped loose)
- ☐ D-37 Motorized combustion air damper

Options

- ☐ E-5 Boiler alarm with bell
- ☐ F-10 Low water cut-off (remote)
- ☐ I-14 High limit, auto reset, 180°F max
- ☐ I-20 High limit, manual reset, 180°F max
- ☐ M-1 Safety valve, motorized
- ☐ M-10 Safety valve, solenoid
- ☐ M-15 Safety valve, (requires M-1 or M-10)
- ☐ S-1 Low gas pressure switch, manual reset
- ☐ S-2 High gas pressure switch, manual reset
- ☐ Z-9 Thermometer (shipped loose)
- ☐ Z-12 Condensate neutralizer

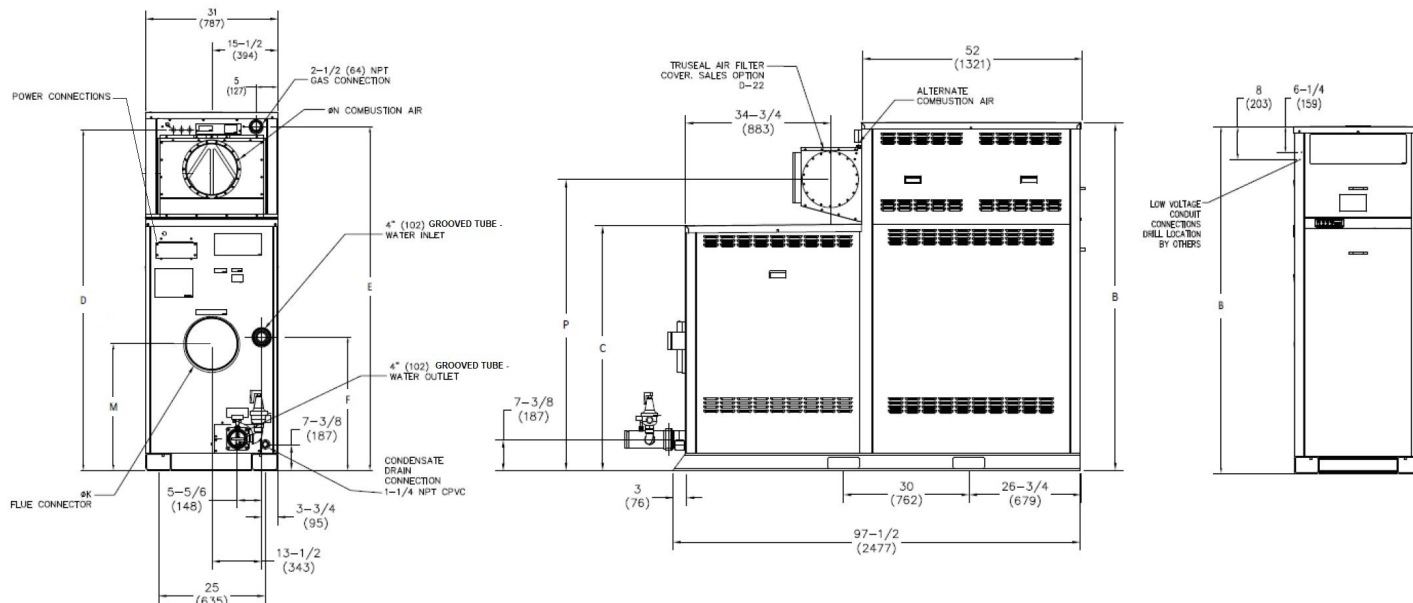
Additional options or accessories

☐ _____

Pumps (optional)

☐ _____

Job: _____



Model (P-)	MBTUH (kWh)		Dimensions - Inches (mm)									Approx. Shipping Weight - lbs. (kg)
	Input	Output	B	C	D	E	F	K Flue	M	N C/A	P	
☐ 2505	2501 (733)	2426 (711)	68-1/4 (1733.6)	43-1/2 (1104.9)	64-1/8 (1628.8)	65 (1651)	21-1/4 (539.8)	10	18-1/2 (469.9)	10	54-5/8 (1387.5)	2656 (1204.7)
☐ 3005	3000 (879.2)	2910 (852.8)	73-1/4 (1860.6)	48-1/2 (1231.9)	69-1/8 (1755.8)	70 (1778)	26-1/4 (666.8)	10	23-1/2 (596.9)	10	59-1/2 (1511.3)	2775 (1258.7)
☐ 3505	3500 (1025.7)	3395 (995)	78-1/4 (1987.6)	53-1/2 (1358.9)	74 (1879.6)	75 (1905)	31-1/4 (793.8)	10	28-1/2 (723.9)	12	64-3/4 (1644.7)	2925 (1326.8)
☐ 4005	4000 (1172.3)	3880 (1137.1)	83-1/4 (2114.6)	58-1/2 (1485.9)	79 (2006.6)	80 (2032)	31 (787.4)	12	29-1/4 (742.9)	12	69-5/8 (1768.5)	3058 (1387.1)

Ratings shown apply to elevations up to 4,500 ft. De-rate above 4,500 ft; consult factory.

CLEARANCES		
Heater Side	Minimum Clearances from Combustible Surfaces in. (mm)	Minimum Service Clearance in. (mm)
Front	Open	30" (762)
Rear	12" (305)	36" (914)
Right Side	1" (25)	24" (610)
Left Side	1" (25)	1" (25)
Top (Outdoor)	0	10" (254)
Floor*	0	0
Vent	1" (25)	1" (25)

*DO NOT install on carpeting

Model (P-)	Amp Draw*	Internal Heater Pump		External Injection Pump	
		HP	Amp Draw*	HP	Amp Draw*
☐ 2505	14	1.5	8.2	0.5	7.0
☐ 3005	20	1.5	8.2	0.75	11
☐ 3505	23	1.5	8.2	1.0	14
☐ 4005	32	3.0	16	1.0	14

*Amp draw is for heater only and does not include pumps or accessories. Pumps are 240VAC/1PH. External injection pump ships loose for field installation.

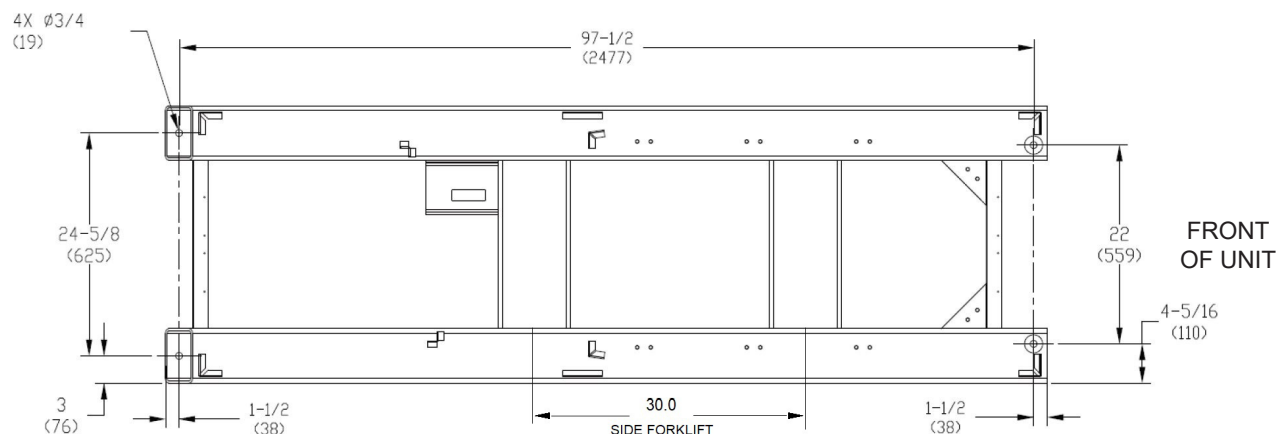
NOTE: Primary/Secondary plumbing arrangement is mandatory for proper operation.

Performance capacity for injection pump, operating at full rate													
System Return Temp. (°F)	Model 2505				Model 3005			Model 3505			Model 4005		
	Supply Temp. (°F)	Flow (GPM)	Pipe Max Equiv. Ft.		Supply Temp. (°F)	Flow (GPM)	Pipe Max Equiv. Ft.	Supply Temp. (°F)	Flow (GPM)	Pipe Max Equiv. Ft.	Supply Temp. (°F)	Flow (GPM)	Pipe Max Equiv. Ft.
			3"	4"									
60	144	57	230	450	146	66	110	148	76	100	144	90	100
80	144	74	230	450	146	86	110	148	98	100	144	119	100
100	144	108	230	450	146	124	110	148	139	100	144	173	100

High fire conditions.

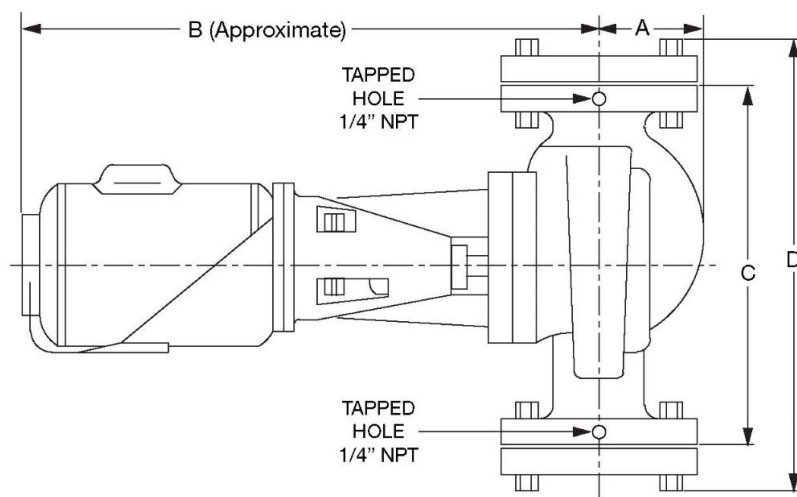
This chart represents performance capacity for injection pump as provided with the unit. Pipe size is determined by velocity not to exceed 7.5 feet per second.

Base Anchor Bolt Pattern



Dimensions are shown in inches (mm).

External Injection Pump - Field-Installed on Inlet Piping



Model (P-)	Dimensions - Inches (mm)			
	A	B	C	D
 2505	3-5/8 (92)	19 (483)	16-1/2 (419)	19-1/2 (495)
 3005		21 (533)		
 3505		19 (482.6)		
 4005				

2-1/2" NPT flanges included.