

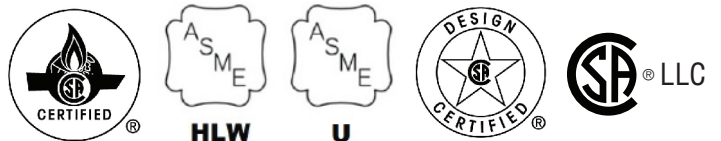


**Product Submittal for XTherm®- Type P
Pool Heater
Models 3005-4005**

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 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



Features and Options:

Heat Exchanger:

- Bronze headers
- ASME HLW-stamped; 160 PSIG MAWP
- National Board registered
- Fin tubing
 - A-3 Cupronickel (standard)
- 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 (shipped loose)
- Four-pass primary heat exchanger
- Secondary stainless steel condensing heat exchanger - U-stamped
- Stainless steel evaporator plate
- Boiler pump: stainless steel, 240V, 1Ø, 60Hz

Power:

- 240V, 60Hz, 1Ø power supply
- 240/120V, 60Hz, transformer
- 240/24V, 60Hz, transformer
- E-16 208V, 60Hz, 1Ø (optional)

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, 180°F
- 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, 2 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:

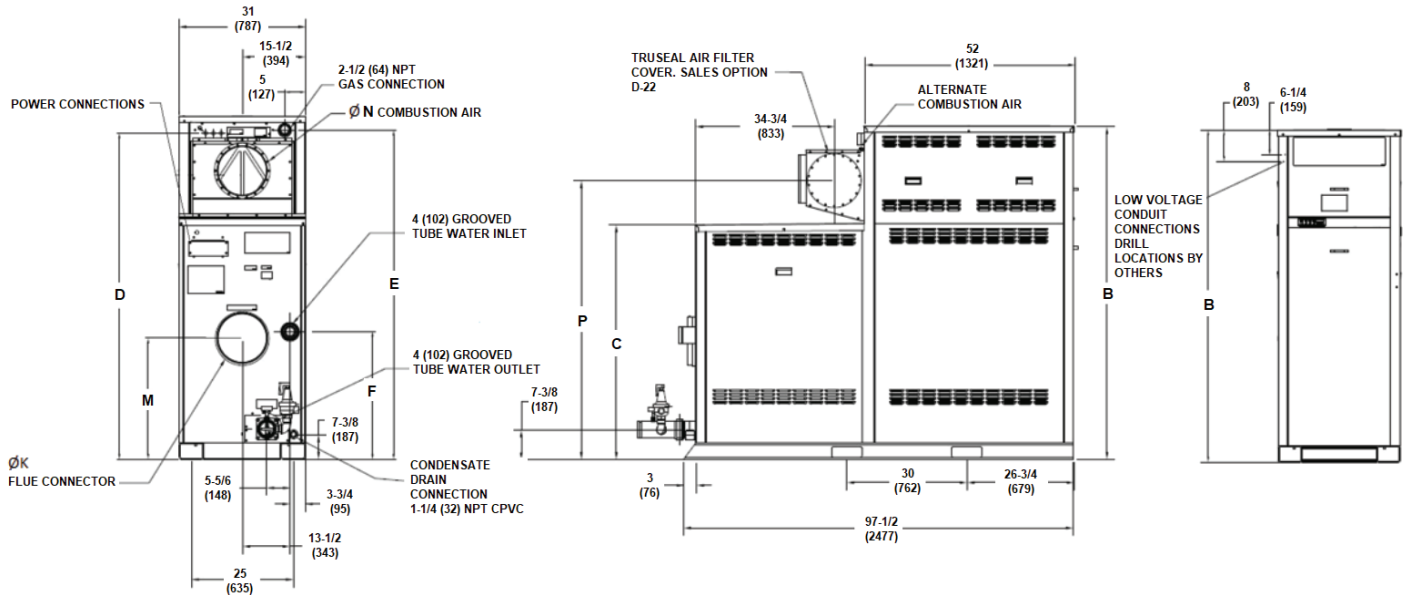
- D-11 Outdoor stack
- D-15 Vent termination, cap (horizontal)
- D-19 Flue exhaust termination cap adapter
- D-23 Flue exhaust vent support
- D-33 Adapter, Centrotherm™ polypro (shipped loose)
- D-37 Motorized combustion air damper

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
- Z-9 Thermometer (shipped loose)
- Z-12 Condensate neutralizer

Additional options or accessories

Pumps (optional)



Model (P-)	MBTUH (kWh)		Dimensions - Inches (mm)									Primary Heat Transfer Surface Area	Output Horse Power	Water Content Gallons (L)	Approx. Shipping Weight - lbs. (kg)
	Input	Output	B	C	D	E	F	K Flue	M	N C/A	P				
<input type="checkbox"/> 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 (254)	23-1/2 (596.9)	10 (254)	59-1/2 (1511.3)	352 sq. ft.	86.93	26 (98)	2775 (1258.7)
<input type="checkbox"/> 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 (254)	28-1/2 (723.9)	12 (305)	64-3/4 (1644.7)	399 sq. ft.	101.42	26.9 (102)	2925 (1326.8)
<input type="checkbox"/> 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 (305)	29-1/4 (742.9)	12 (305)	69-5/8 (1768.5)	446 sq. ft.	115.91	33.8 (128)	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)

Model (P-)	Amp Draw*	Internal Heater Pump		External Injection Pump	
		HP	Amp Draw*	HP	Amp Draw*
<input type="checkbox"/> 3005	20	1.5	8.2	0.75	11
<input type="checkbox"/> 3505	23	1.5	8.2	1.0	14
<input type="checkbox"/> 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.

*DO NOT install on carpeting

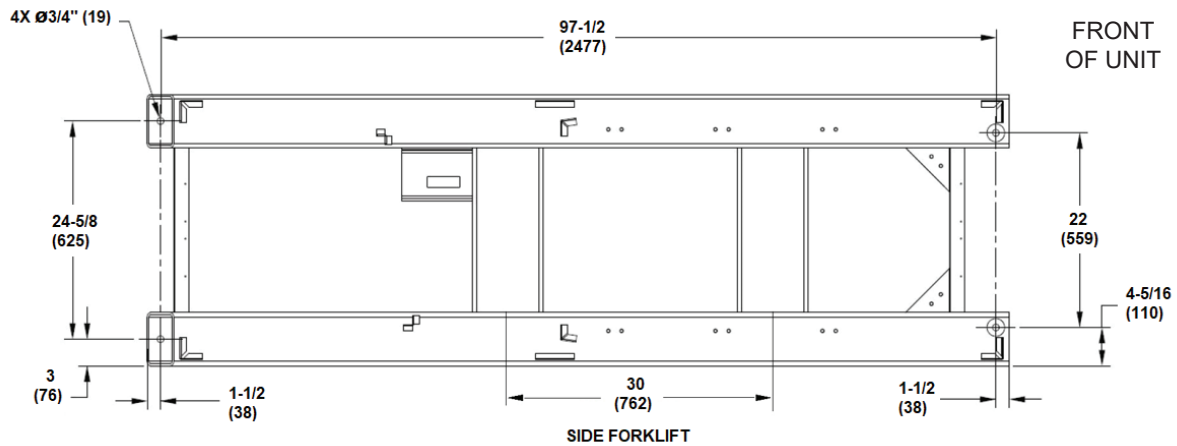
NOTE: Primary/Secondary plumbing arrangement is mandatory for proper operation.

Performance capacity for injection pump, operating at full rate									
System Return Temp. °F (°C)	☐ Model 3005			☐ Model 3505			☐ Model 4005		
	Supply Temp. °F (°C)	Flow GPM (LPM)	Pipe Max. Equiv. Ft.	Supply Temp. °F (°C)	Flow GPM (LPM)	Pipe Max. Equiv. Ft.	Supply Temp. °F (°C)	Flow GPM (LPM)	Pipe Max. Equiv. Ft.
			4"			4"			
60 (16)	146 (63)	66 (250)	110	148 (64)	76 (288)	100	144 (62)	90 (341)	100
80 (27)		86 (325)			98 (371)			119 (450)	
100 (38)		124 (469)			139 (905)			173 (655)	

High-fire conditions.

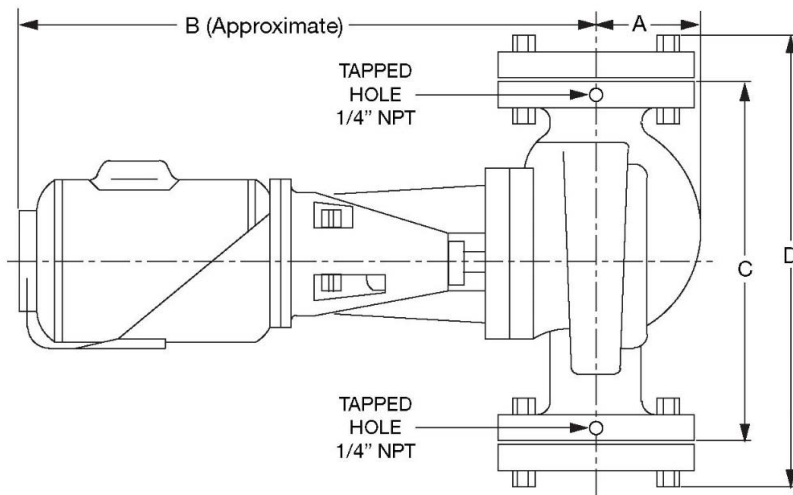
This chart represents performance capacity for injection pump as provided with the unit. Pipe size is determined by velocity not to exceed 7.5 feet per second.

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
☐ 3005	3-5/8 (92)	21 (533)	16-1/2 (419)	19-1/2 (495)
☐ 3505		19 (482.6)		
☐ 4005				

2-1/2" NPT flanges included.