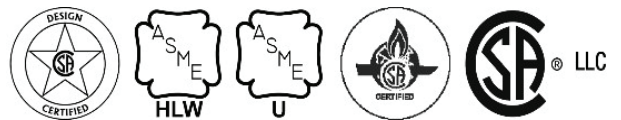


Date: _____ Job: _____ Location: _____
 Equipment Tags: _____ Engineer: _____ Contractor: _____
 Model: _____ Notes: _____
 Prepared by: _____ Indoor Outdoor Gas Type: Natural Gas Propane

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® modulating controller with 7" color touchscreen display
- Raymote™ remote connectivity provided standard
- Full safety diagnostics with history
- Status display lights
- Cascade up to 4 heaters - no external sequencer required
- Maximum water setpoint: 104°F
- Minimum inlet water temperature: 50°F
- Limited five-year primary heat exchanger warranty
- Limited ten-year secondary heat exchanger warranty
- On/off operation
- Proudly assembled in the USA



Job: _____

Standard Features

Heat Exchanger

- Headers - bronze
- ASME HLW stamped, 160 PSIG MAWP
- National Board listed
- Cupronickel finned tubing
- ASME powder-coated tube sheet
- Silicone high-temp O-rings
- 125 PSIG ASME pressure relief valve
- Air bleed valve, manual (2)
- T&P gauge
- Secondary stainless steel condensing heat exchanger - U ASME stamped
- Stainless steel evaporator plate
- 4" grooved copper water connections

Control

- 240V, 60Hz, 1Ø power supply
- 240/120V 60Hz transformer
- 240/24V 60Hz transformer
- VERSA IC® built-in controller
- 7" color HD touchscreen display
- Raymote™ WiFi remote connectivity
- Cascade up to 4 heaters
- Ignition module
 - 3-Try (standard)
 - C-6 Single-Try (optional)
- Remote flame sensor
- Fixed high limit, manual reset, 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 (2 mounted, 2 loose)
- Sensor wells (2 loose)
- Cold Water Protection Package

- Modbus RTU BMS port (up to 115K Baud Rate, see Cat. No. 5000.73)
 - B-85 BACnet MS/TP, BACnet IP, Metasys N2 or Modbus TCP (optional)
 - B-86 BMS Gateway, Modbus RTU to LonWorks (optional)

Burner

- Hot surface ignition (HSI)
- Radially-fired knitted burner
- Low NOx: less than 30 ppm NOx (natural gas only)

Gas Train

- Fuel
 - Natural gas
 - Propane gas (minimum grade HD5)
- Dual-seat combination valve
- Manual shut off firing valve

Construction

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

Venting

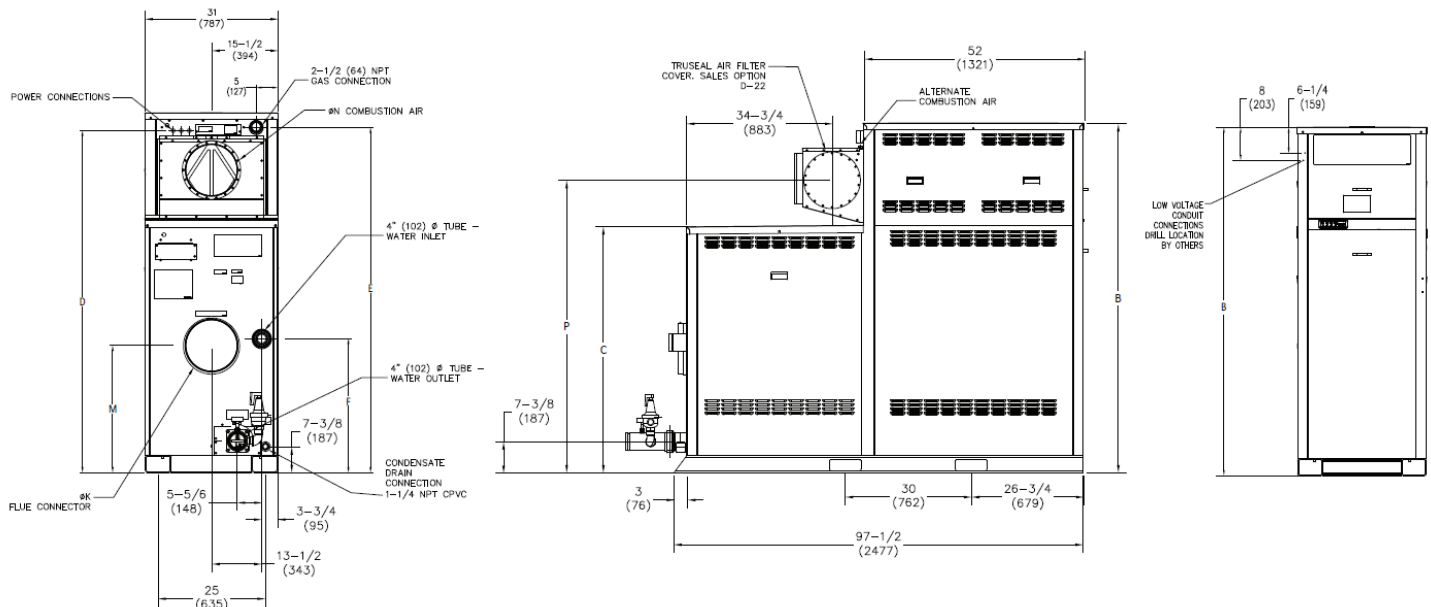
- Vent termination, Cat IV
 - D-11 Outdoor vent cap (includes outdoor air filter cover)
 - D-15 Sidewall vent
 - D-19 Flue term cap adapter
 - D-23 Flue support brackets
 - D-33 Centrotherm™ Polypro Vent Adapter Kit (includes 2 adapters plus vent limit switch)
 - D-37 Motorized combustion air damper
- Extractor - optional
 - By others
 - Not required

Options

- E-5 Alarm center with 4" bell - mounted
- F-10 Low water cut-off, remote probe
- I-14 Auto reset high limit 180°F max
- I-20 Manual reset high limit 180°F max
- M-1 Safety valves, motorized
- M-10 Safety valves, solenoid
- M-15 Safety valves, vent valve (must also use M-1 or M-10)
- S-1 Low gas pressure switch
- S-2 High gas pressure switch
- S-3 Low water pressure switch
- Z-9 Thermometer, brass 1/2" vertical
- Z-12 Condensate treatment kit

Additional Options or Accessories

Pumps (Optional)



* Water connections are grooved copper tube. Dimensions are shown in inches (mm).

Model (P-)	MBTUH (kW)		Dimensions - inches (mm)								Shipping Weight - lbs (kg)	
	Input	Output	B	C	D	E	F	K Flue	M	N C/A		P
<input type="checkbox"/> 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)
<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	23-1/2 (596.9)	10	59-1/2 (1511.3)	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	28-1/2 (723.9)	12	64-3/4 (1644.7)	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	29-1/4 (742.9)	12	69-5/8 (1768.5)	3058 (1387.1)

Clearances - inches (mm)

	Front	Rear	Right	Left	Top	Floor	Vent
Combustible Minimum	24 (609.6)	12 (304.8)	1 (25.4)	1 (25.4)	0	0	1 (25.4)
Minimum Service	30 (762)	36 (914.4)	24 (609.6)	1 (25.4)	12 (304.8)	N/A	N/A

Model (P-)	Amp Draw*	Internal Heater Pump		External Injection Pump	
		HP	Amp Draw	HP	Amp Draw
<input type="checkbox"/> 2505	12	1.5	8.2	0.5	7.0
<input type="checkbox"/> 3005	15	1.5	8.2	0.75	11
<input type="checkbox"/> 3505	17	1.5	8.2	1.0	14
<input type="checkbox"/> 4005	20	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.

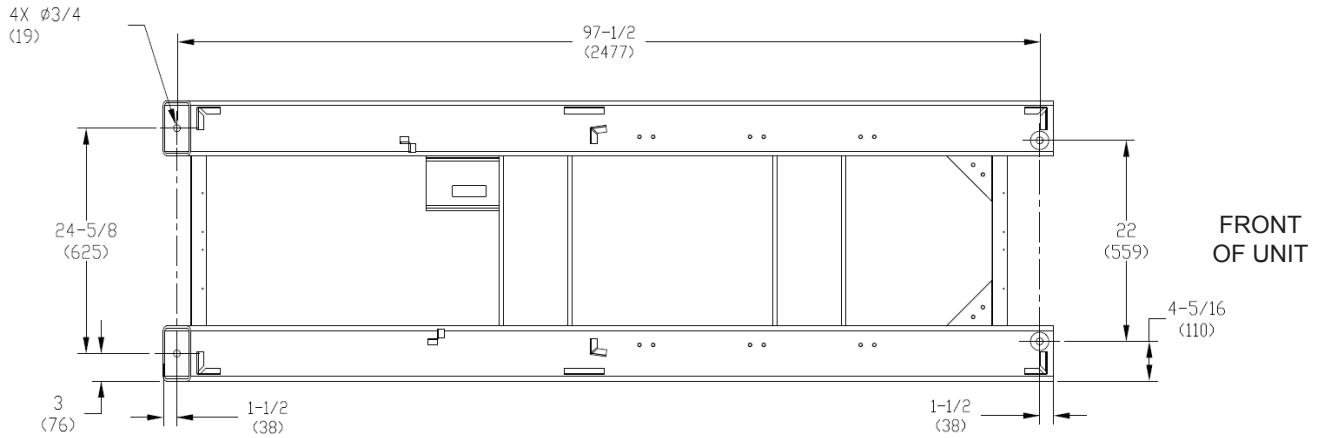
Performance capacity for injection pump, operating at full rate

System Return Temp. (°F)	☐ Model 2505 (30°F Delta T)				☐ Model 3005 (30°F Delta T)			☐ Model 3505 (32°F Delta T)			☐ Model 4005 (33°F Delta T)		
	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"			4"			4"			
60	144	57	230	450	146	67	110	148	76	100	144	91	100
80	144	75	230	450	146	87	110	148	99	100	144	120	100
100	144	109	230	450	146	125	110	148	140	100	144	175	100

High fire conditions.

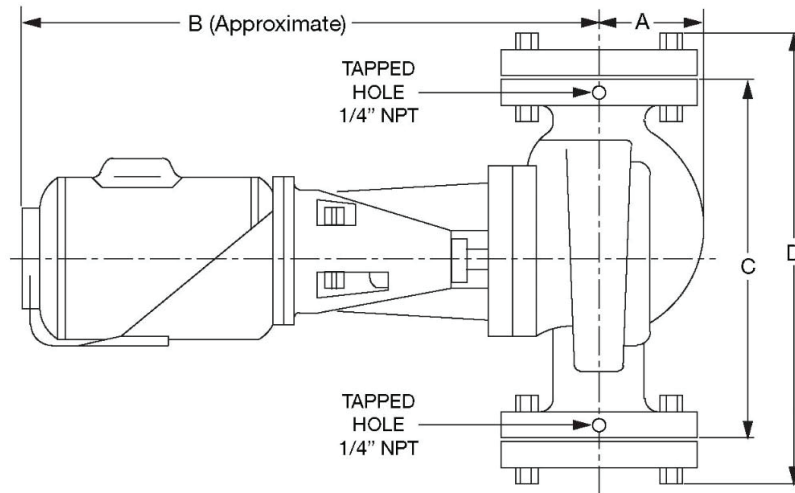
This chart represents performance capacity for injection pump as provided with the unit. Pipe size is determined by velocity not to exceed 7.5 feet per second.

**Base Anchor Bolt Pattern
Models 2005 - 4005**



Dimensions are shown in inches (mm).

External Injection Pump - Field Installed on Inlet Piping



Model (P-)	Dimensions - inches (mm)			
	A	B	C	D
☐ 2505		18 (457.2)		
☐ 3005	3-1/2 (88.9)	18-1/2 (469.9)	13-1/2 (342.9)	16-1/8 (409.6)
☐ 3505		19 (482.6)		
☐ 4005				

2-1/2" NPT flanges included.

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