Job:		
Engineer:		
Contractor:		
Prepared By:	Date:	
Model:	Indoor/Outdoor:	

# $\mathsf{XTherm}^{\scriptscriptstyle{\mathsf{B}}}$ Type P

**Pool Heaters** Models 2505-4005

97% Thermal Efficiency at Full Rate

100% Factory Fire Tested

Maximum Setpoint - 106°F

VERSA IC® Modulating Controller with Color Touchscreen Display

**Full Safety Diagnostics with History** 

**Status Display Lights** 

Cascade up to 4 Heaters - No External Sequencer Required

**Modbus RTU BMS Port** 

CSA Low-Lead Certified ≤ .25% Lead

Maximum Outlet Water Temperature: 160°F

Minimum Inlet Water Temperature: 50°F

**Limited Five-Year Primary Heat Exchanger Warranty** 

**Limited Ten-Year Condensing Heat Exchanger Warranty** 

**Limited Twenty-Five-Year Thermal Shock Warranty** 

**BAAQMD Certified Per Rule 9-7.** 





#### Proudly Assembled in the USA

- **Heat Exchanger**
- Headers Bronze
- ASME H Stamped; 160 PSIG MAWP
- National Board Listed
- Fin Tubina
- Cupro-Nickel Finned Tubbing
- ASME Powder-Coated Tube Sheet
- Silicone High-Temp O-Rings
- ASME Pressure Relief Valve
- 125 PSIG Standard
- 150 PSI Air Vent, Auto (2)
- T&P Gauge
- Four-Pass Heat Exchanger
- Stainless Steel Evaporator Plate
- 4 Inch Grooved Copper Water Connections

- 240V, 60Hz, 1Ø, Power Supply
- 240/120V 60Hz Transformer
- 240/24V 60Hz Transformer
- VERSA IC® Integrated Control
- Cascade up to 4 Heaters
- Hot Surface Ignition (HSI)
- Ignition Module
  - 3-Try Standard
- ☐ Single-Try Option C6
- 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
- Color HD Touch Screen Display
- Versa IC Temperature Control
- Water Temperature Sensors (4)
- Sensor Wells (2)
- **Cold Water Protection Function**
- Modbus RTU BMS Port (Up to 115K Baud Rate, see Cat. No. 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**

- Radially-Fired Knitted Burner
- Low NOx: Less than 30 PPM NOx (Nat)

#### 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 Z21.13/CSA 4.9

#### Venting

- Vent Termination
  - □ D-11Outdoor or Indoor, Vertical Option (Cat IV)
  - ☐ D-15 Indoor, Horizontal Option (Cat IV)
- Extractor Optional
- By others ☐ Not required

#### **Options**

- ☐ F-10 Low Water Cut-Off, Remote Probe □ I-6 High Limit, Auto Reset, Adj.,
  - 100-240 °F
- ☐ I-12 High Limit, Manual Reset, Adj.,
  - 100-240 °F
- □ S-1 Low Gas Pressure Switch, Manual Reset
- Condensate Treatment Kit

#### **Additional Options or Accessories**









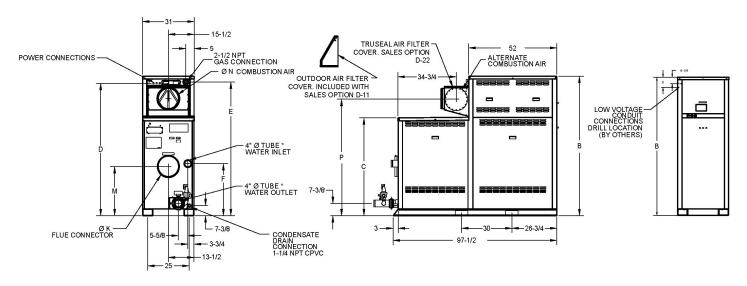
Catalog No.: 6000.374 Effective: 09-7-16 Replaces: NEW

## XTherm<sup>®</sup> - Type P Models 2505-4005

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

	Clearances (in)												
	Front	Rear	Right	Left	Top	Floor	Vent						
Combustible Minimum	24	12	1	1	0	0	1						
Minimum Service	30	36	24	1	12	N/A	N/A						



Model	ME	MBTUH		Dimensions (in.)									Thermal	Shipping
	IVIE	этоп	D	_	П	_	_	K	М	Ν	D	Amp** Draw	Efficiency (BTS-2000)	Weight
(1 - )	Input Out	Output	Ь	O	ם	ш	Г	Flue	IVI	C/A	Г			(Lbs.)
□ 2505	2501	2425	68-1/4	43-1/2	64-1/8	65	21-1/4	10	18-1/2	10	54-5/8	12		2656
□ 3005	3000	2910	73-1/4	48-1/2	69-1/8	70	26-1/4	10	23-1/2	10	59-1/2	15	97%	2775
□ 3505	3500	3395	78-1/4	53-1/2	74	75	31-1/4	10	28-1/2	12	64-3/4	17	97 /0	2925
□ 4005	4000	3880	83-1/4	58-1/2	79	80	31	12	29-1/4	12	69-5/8	20		3058

<sup>\*</sup> Water connections are grooved copper tube.

<sup>\*\*</sup> Amp draw is for heater only and does not include pumps or accessories.

Model	-	ernal er Pump	External Injection Pump			
iviodei	HP	HP Amp HP Draw		Amp Draw		
□ 2505	1.5	8.2	1.0	7		
□ 3005	1.5	8.2	1.5	8.2		
□ 3505	1.5	8.2	1.5	8.2		
□ 4005	3.0	16	1.5	8.2		

Pumps are 240VAC/1PH. External injection pump ships loose for field installation. The Chart below represents performance capacity for injection pump as provided with the unit. Pipe size is determined by velocity not to exceed 7.5 ft. per second.

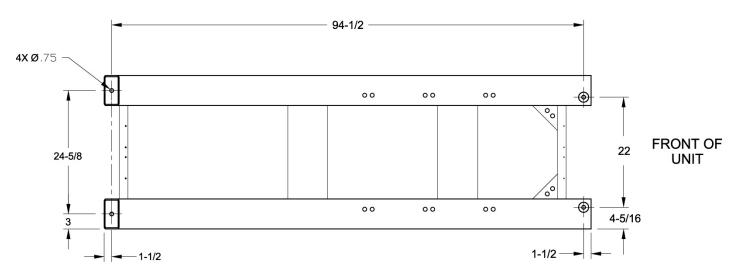
Sys	☐ Mo	del 2505	(30°F D∈	elta T)	☐ Mod	del 3005	(30°F Delta T)	☐ Model 3505 (32°F Delta T)			☐ Model 4005 (33°F Delta T)		
Ret Temp	Supply Temp	Flow GPM	Pipe N F	∕lax Eq -t	Supply Temp	Flow GPM	Pipe Max Eq Ft	Supply Temp	Flow GPM	Pipe Max Eq Ft	Supply Temp	Flow GPM	Pipe Max Eq Ft
(#F)	(#F)	GPM	3"	4"	(#F)	GPM	4"	(#F)	GPIVI	4"	(#F)	GPIVI	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

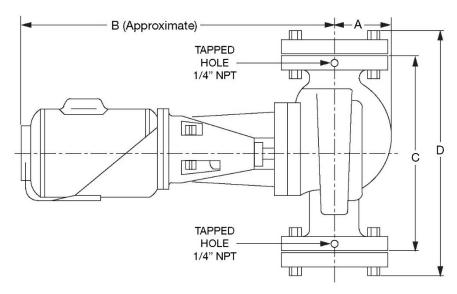
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NOTE: Primary/Secondary plumbing arrangement is mandatory for proper operation.

### Base Anchor Bolt Pattern Models 2005 - 4005



Injection Pump - Field Installed in Inlet Piping



2" NPT Flanges Included

Model	Α	В	С	D		
□ 2505		18				
□ 3005	3-1/2	18-1/2	10 1/0	16-1/8		
□ 3505		19	13-1/2	10-1/6		
□ 4005		19				

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