CONDENSING BOILER and WATER HEATER START-UP FORM

(REFER TO THE PRODUCT MANUAL FOR QUESTIONS REGARDING THE INSTALLATION AND OPERATION OF THIS PRODUCT)

JOB NAME: **DATE:**

INSTALLATION and START-UP PREPARATION PERFORMED BY:

COMPANY: **PO#:** **SO#:**

ADDRESS: **CONTACT:**

CITY: **STATE:** **ZIP:** **TELEPHONE:**

Appliance Information

Unit #	MODEL	SERIAL #	PUMP MODEL	PUMP HP
1				
2				
3				
4				
5				
6				
7				
8				

Tank Information

Tank #	MODEL	CAPACITY	SERIAL #	TYPE	ORIENT.
1				☐ Buffer ☐ DHW Storage	☐ Vertical ☐ Horizontal
2				☐ Buffer ☐ DHW Storage	☐ Vertical ☐ Horizontal

BOILER / WATER HEATER START-UP PREP LIST

Gas Preparations

Diameter, Gas Line to Appliance:		**Step-Down Regulator:**	☐ Yes	☐ No
Feet from regulator to appliance:		**Sediment trap installed (per NFPA 54:9.6.8)**	☐ Yes	☐ No
Common Gas Line Size:		**Feet of gas line from meter to heater:**		
Total 90° Elbows:		**Static Gas Pressure:**		
		Regulator Vent Line or Vent Limiter?		

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Water Preparations

System Pipe Size:		**Pipe Size to Appliance:**			
Qty. of elbows between appliance & DHW tank OR system piping:		**HW recirc piped to common discharge from heater to DHW tank:**	☐ Yes	☐ No	
Piping Arrangement:		**Expansion tank:**	☐ Yes	☐ No	
Sensor Location:		**Sensor Installed Correctly; (Thermal paste & completely in well):**	☐ Yes	☐ No	
Water Quality (ph, Hardness. See req. in manual)		**Has Existing System Been Flushed?**	☐ Yes	☐ No	
		Is There A Mag-Separator Installed?	☐ Yes	☐ No	
Water Treatment:		**Isolation valves on HWR & HWS of heaters:**	☐ Yes	☐ No	
Recirculator Pump:	**Make:**		**Pump HP:**		
	Model:		**GPM & Head (If Available):**		
Thermal mixing valve installed on the discharge of the DHW tank.	☐ Yes	☐ No	**T&PR sized for combined BTUH of heating system:**	☐ Yes	☐ No
Temperature & Pressure Relief Valves (T&PR) or Pressure Relief Valves (PRV) installed and piped to floor drains:	☐ Yes	☐ No			

Electrical Preparations

Voltage, Incoming Supply:			**Disconnects:**	☐ Yes	☐ No
Separate Pump Power:	☐ Yes	☐ No	**Outdoor Air Sensor:**	☐ Yes	☐ No
BMS Interface:	☐ Yes	☐ No	**Conductor Control:**	☐ Yes	☐ No
BMS interface:			**BMS Gateway:**	☐ Yes	☐ No

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Venting and Air Intake

Combustion Air Opening Type:		**Combustion Air Opening Size:**	
Venting Material:		**Vent Properly Supported:**	☐ Yes ☐ No
Vent Termination:		**Venting Adapter:**	
Combustion Air Openings 12" From Floor:	☐ Yes ☐ No	**Room Air Ventilation Opening Size:**	
Flue Drain Type:		**Flue Test Port:**	☐ Yes ☐ No
Flue Drain Trapped Properly:	☐ Yes ☐ No	**Proper Vent Clearances**	☐ Yes ☐ No
Vertical Vent Height:		**Horizontal Vent Length:**	

Total elbows used (including boot tee)

90° Vent Elbows:		**45° Vent Elbows:**	
Condensate Neutralizer Kit Piped to Floor Drain:	☐ Yes ☐ No		

Service Clearances

Front:		**Rear:**	
Right Side:		**Left Side:**	
Top:			

Notes and Comments:

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BOILER and WATER HEATER START-UP CHECKLIST

Gas Supply

Natural Gas ☐ **LP Gas** ☐

Static Pressure (Unit Off):		**"wc**
Dynamic Pressure (100% Fire):		**"wc**
Gas Pipe Diameter:		**" (Inches)**

Is there an inlet gas lockup regulator on the supply? ☐ Yes ☐ No

Is the field supplied gas pressure regulator a minimum of 10 ft from the appliance? ☐ Yes ☐ No, Explain:

Combustion

High Fire:			**Low Fire:**		
O_2:		**%**	**O_2:**		**%**
CO_2:		**%**	**CO_2:**		**%**
CO:		**ppm**	**CO:**		**ppm**
Excess Air:		**%**	**Excess Air:**		**%**
Stack Temperature:		**°F**	**Stack Temperature:**		**°F**

Water Temperatures at 100% Firing Rate

Supply Temperature :		**°F**	**Return Temperature:**		**°F**	**Delta T:**	0 **°F**

Electrical

Supply Voltage:		**Total Amp Draw:**	
Breaker Size:		**Neutral to Ground, Less than 1Volt:**	☐ Yes ☐ No

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Venting and Air Intake

Refer to O&M Manuals for Equivalent Lengths of Vent and Combustion Air Components

VENTING: **Material:** **Diameter (In.)**

Component	COMBUSTION AIR						VENT					
	Equivalent Length Per Piece	X	Quantity	=	Subtotal Eqvuivalent Length		Equivalent Length Per Piece	X	Quantity	=	Subtotal Equivalent Length	
Straight Pipe		X		=	0	A		X		=	0	D
90° Elbow		X		=	0	B		X		=	0	E
45° Elbow		X		=	0	C		X		=	0	F
	Combustion Air Total Equivalent Length			=	0		Vent Total Equivalent Length			=	0	

Vent / Air Termination:

- ☐ Vertical vent, w/sidewall air louvers(s)
- ☐ Horizontal vent, w/sidewall air louvers(s)
- ☐ Vertical vent with Vertical combustion air ductwork
- ☐ Horizontal vent, w/horizontal combustion air ductwork
- ☐ Vertical or horizontal vent with only room air.

Notes: (Refer to O&M Manual)

1 Make sure total equivalent length does not exceed max equivalent lent shown in Manual.
2 Vent and combustion air terminals do not count toward total equivalent length.
3 Pressure drop for flexible polypropylene liner is 20% greater than for rigid pipe.
Multiply measure flexible polypropylene line length by 1.2 to obtain equivalent length.
4 Max equivalent length of flexible polypropylene liner is 48 feet.

Notes and Comments: