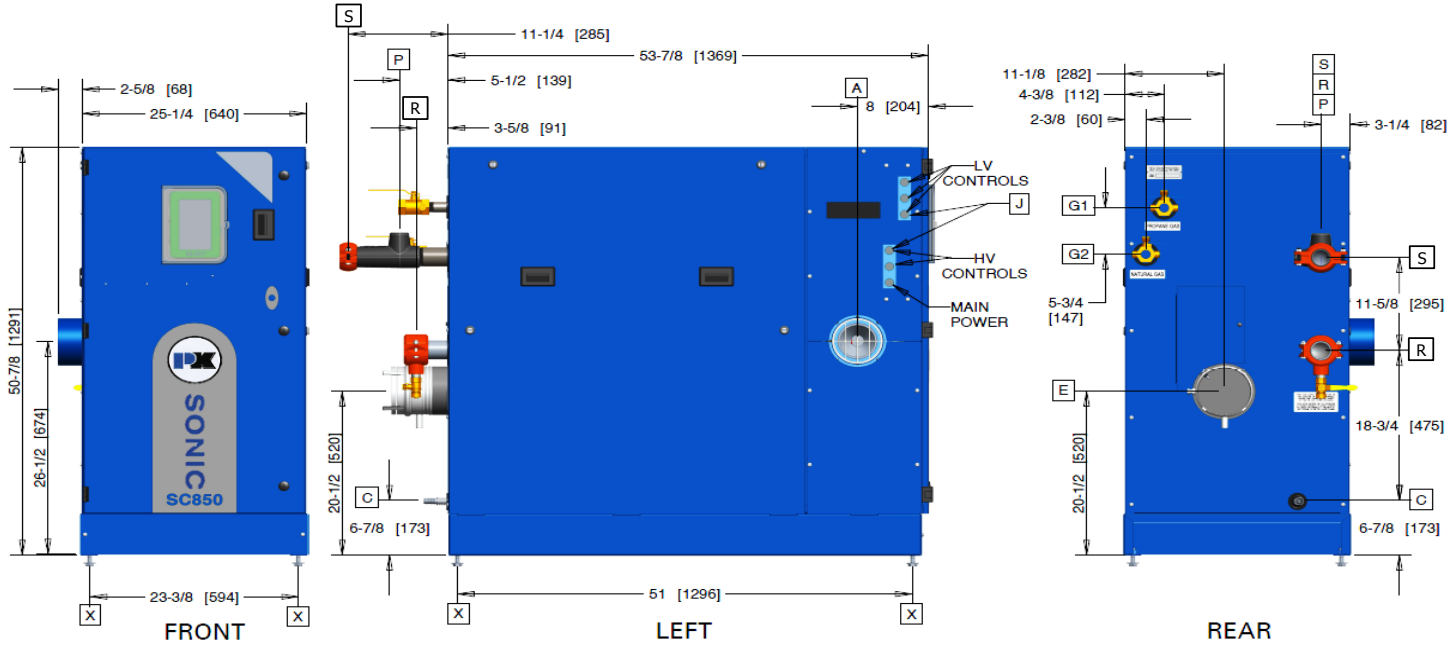


Rep Name: _____

Email: _____

Phone Number: _____

Date: _____ / _____ / _____



Primary dimensions are in inches. The secondary dimensions, [in brackets], are in millimeters.

This SONIC boiler requires Category IV venting (condensing-positive pressure) or Category II venting[†] (condensing -negative pressure as defined in ANSI Z223.1/NFPA 54/CSA-B.149 latest edition).

[†]Category II venting must include the optional combustion air damper

BOILER CONNECTIONS		
A	Combustion Air Inlet	6" dia. stub
C	Condensate Drain	3/4" hose
E	Exhaust Vent	6"
G1	Propane Gas	1" NPT-F
G2	Natural Gas	1" NPT-F
J	Wiring Junction Boxes	inside cabinet
P	Pressure Relief Valve	see list for options
R	Boiler Return, Victaulic® clamp	2" pipe, grooved
S	Boiler Supply, Victaulic clamp	2" pipe, grooved
X	Anchor Bolt Locations	(4) 1/2" dia holes

[†]SCD Hot Water Supply Boiler models terminate with 2" copper tube, grooved

MODEL SELECTION				
Boilers	<input type="checkbox"/> SC-650	<input type="checkbox"/> SC-750	<input type="checkbox"/> SC-850	<input type="checkbox"/> SC-1000
Hot Water Supply Boilers	<input type="checkbox"/> SCD-650	<input type="checkbox"/> SCD-750	<input type="checkbox"/> SCD-850	<input type="checkbox"/> SCD-1000
Fuel Options	<input type="checkbox"/> DUAL FUEL	<input type="checkbox"/> DUAL FUEL	<input type="checkbox"/> DUAL FUEL	<input type="checkbox"/> DUAL FUEL
	<input type="checkbox"/> NG <input type="checkbox"/> LP	<input type="checkbox"/> NG <input type="checkbox"/> LP	<input type="checkbox"/> NG <input type="checkbox"/> LP	<input type="checkbox"/> NG <input type="checkbox"/> LP
Min Inlet Gas Pressure	3.5" w.c.			
Max Inlet Gas Pressure	14" w.c.			
Max Input (BTU/hr)	650,000	750,000	850,000	1,000,000
Max Output (BTU/hr)	611,650	705,750	799,850	923,000
Boiler HP	18.3	21.1	23.9	27.5
Min Input (BTU/hr)	125,000	125,000	141,000	143,000
Turndown Ratio	5.2:1	6:1	6:1	7:1
Operating & Shipping Weight †	780 lbs.	780 lbs.	800 lbs.	810 lbs.
Boiler Water Content	<10 gallons			
Shipping Dimensions	84"x36"x57" (LxWxH)			
Power Supply	120V 1ph 60 Hz			
Operating Current	< 5 Amps			< 10 Amps
Recommended Minimum Circuit Capacity	10 Amps			

[†]Add 50 lbs. to the listed values when considering a dual fuel models

BOILER CONTROLS	
ASME CSD-1 is standard	
Complies with: GE GAP (IRI) guidelines GAP.4.1.0 and GAP.4.1.3	
FM Global 6-4 Section 1.0	
Main Gas Train with Dual Shut-off	
Integrated Boiler Control, NURO Series	
Operating Thermostat, 70°-195°F (21°-91°C)	
High Limit Thermostat, Manual Reset, 100°-197°F (38°-92°C)	
High Exhaust Back Pressure Switch	
LWCO/Flow Switch, Paddle Type (Optional: LWCO, Probe Type)	
Combustion Air Proving Switch, Differential Pressure Type	
Combustion Blower, Variable Speed, 350 Watt (SC650-750-850) & 950 Watt (SC-1000)	

PRESSURE RELIEF VALVE/PRESSURE-TEMPERATURE GAUGE	
Shipped Loose for Field Installation	
<input type="checkbox"/> 30 PSIG 1"x 1"	0-100 psi/30-240°F
<input type="checkbox"/> 50 PSIG 1"x 1-1/4"	0-100 psi/30-240°F
<input type="checkbox"/> 60 PSIG 1"x 1"	0-100 psi/30-240°F
<input type="checkbox"/> 75 PSIG 1"x 1"	0-240 psi/30-240°F
<input type="checkbox"/> 80 PSIG 1"x 1"	0-240 psi/30-240°F
<input type="checkbox"/> 100 PSIG 1"x 1-1/4"	0-240 psi/30-240°F
<input type="checkbox"/> 125 PSIG 1"x 1"	0-240 psi/30-240°F
<input type="checkbox"/> 150 PSIG 1"x 1"	0-240 psi/30-240°F

A.S.M.E. SECTION IV DESIGN DATA	SC-650	SC-750	SC-850	SC-1000
	SCD-650	SCD-750	SCD-850	SCD-1000
Max Pressure	160 PSIG			
Max Allowable Temperature	210°F			
Max Operating Temperature	194°F			
Heated Wet Surface Area	76.2	76.2	87	87
Flow Rate @ 20°FΔT	61.2 GPM	70.6 GPM	80.0 GPM	92.3 GPM
Recovery 40-140°F	734 GPH	847 GPH	960 GPH	1108 GPH
Flow Rate 60-120°F	1223 GPH	1412 GPH	1600 GPH	1846 GPH
Min Flow Rate @ All Firing Rates (Flow Switch Setting)	25 GPM	25 GPM	30 GPM	30 GPM

RECOMMENDED CLEARANCE FOR SERVICE ACCESS				
Front - 26"	Rear - 12"	Top - 12"	Left Side - 24"	Right Side - 0"

Notes:
 - Victaulic is a registered trademark of Victaulic Company, Easton PA, USA
 - Patterson-Kelley reserves the right to make changes at any time without notification
 - Dual fuel models are not designed to run both fuels simultaneously

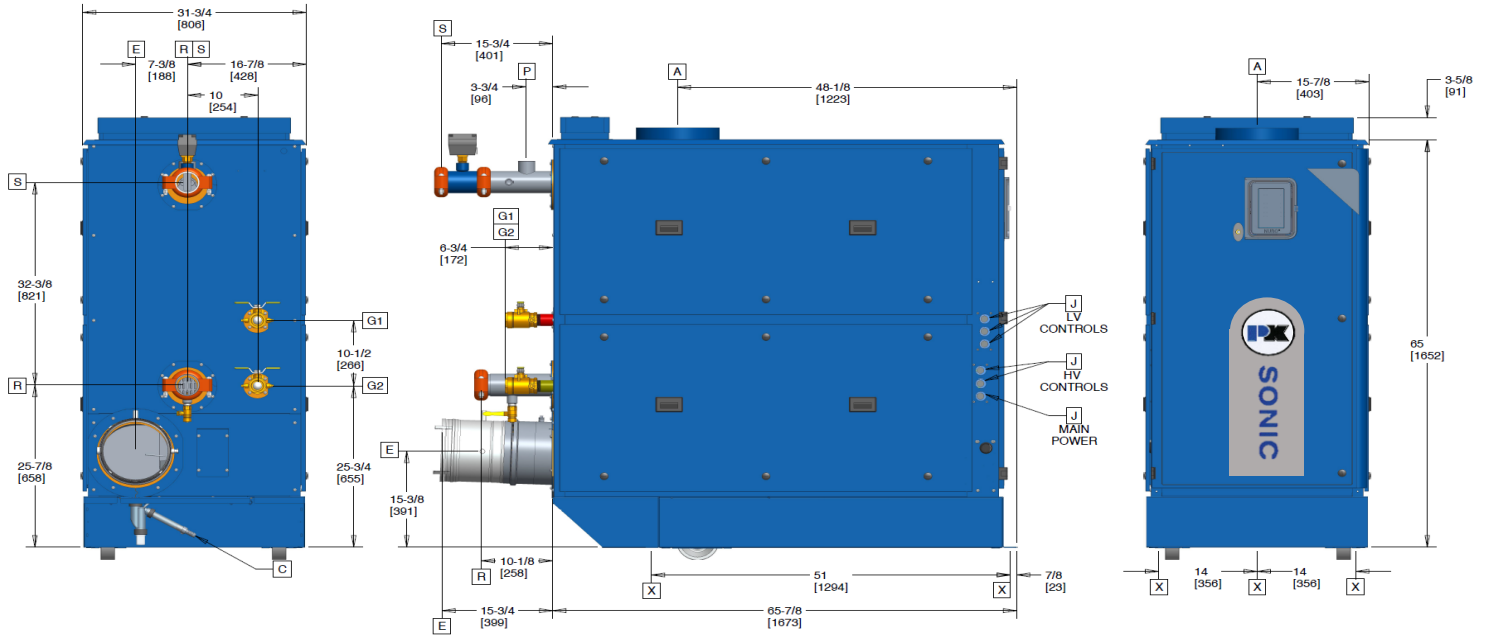


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†Category II venting must include the optional combustion air damper

BOILER CONECTIONS	
A	Combustion Air Inlet 12" dia. stub
C	Condensate Drain 3/4" hose
E	Exhaust Vent 10"
G1	Propane Gas 1-1/2" NPT-F
G2	Natural Gas 1-1/2" NPT-F
J	Wiring Junction Boxes inside cabinet
P	Pressure Relief Valve see list for options
R	Boiler Return, Victaulic® clamp 3" pipe, grooved
S	Boiler Supply, Victaulic clamp 3" pipe, grooved
X	Anchor Bolt Locations (6) 9/16" Bolt Holes

MODEL SELECTION				
Boilers	SC-1500		SC-2000	
	DUAL FUEL		DUAL FUEL	
Fuel Options	NG	LP	NG	LP
Min Inlet Gas Pressure	3.5" w.c.	7.0" w.c.	4.0" w.c.	7.0" w.c.
Max Inlet Gas Pressure	14" w.c.			
Max Input (BTU/hr)	1,500,000		2,000,000	
Max Output (BTU/hr)	1,456,000		1,928,000	
Boiler HP	43.5		57.4	
Min Input (BTU/hr)	291,000		384,000	
Turndown Ratio	5:1		5:1	
Estimated Operating/ Shipping Weight †	1450* lbs.			
Boiler Water Content	23.9 Gallons			
Shipping Dimensions	36"x84"x80" (LxWxH)			
Power Supply	208/240V 1ph 60 Hz			
Operating Current	< 15 Amps			
Recommended Minimum Circuit Capacity	15 Amps			

BOILER CONTROLS
ASME CSD-1 is standard
Complies with: GE GAP (IRI) guidelines GAP.4.1.0 and GAP.4.1.3
FM Global 6-4 Section 1.0
Main Gas Train with Dual Shut-off
Integrated Boiler Control, NURO Series
Operating Thermostat, 42°-195°F (5.6°-91°C)
High Limit Thermostat, Manual Reset, 100°-197°F (38°-92°C)
High Exhaust Back Pressure Switch
LWCO/Flow Switch, Paddle Type & LWCO, Probe Type
Combustion Air Proving Switch, Differential Pressure Type
Combustion Blower, Variable Speed, 890 Watt

PRESSURE RELIEF VALVE/PRESSURE-TEMPERATURE GAUGE		
Shipped Loose for Field Installation		
<input type="checkbox"/> 30 PSIG 1-1/4"x 1-1/4"	0-100 psi/30-240°F	
<input type="checkbox"/> 50 PSIG 1"x 1-1/4"	0-100 psi/30-240°F	
<input type="checkbox"/> 60 PSIG 1"x 1"	0-100 psi/30-240°F	
<input type="checkbox"/> 75 PSIG 1"x 1"	0-240 psi/30-240°F	
<input type="checkbox"/> 80 PSIG 3/4"x 1"	0-240 psi/30-240°F	
<input type="checkbox"/> 100 PSIG 3/4"x 3/4"	0-240 psi/30-240°F	
<input type="checkbox"/> 125 PSIG 3/4"x 3/4"	0-240 psi/30-240°F	
<input type="checkbox"/> 150 PSIG 3/4"x 3/4"	0-240 psi/30-240°F	

A.S.M.E. SECTION IV DESIGN DATA	SC-1500	SC-2000
Max Pressure	160 PSIG	
Max Allowable Temperature	210°F	
Max Setpoint	185°F	
Heated Surface Area	95.2 ft²	
Flow Rate @ 20°FΔT	145.5 GPM	192 GPM
Min Flow Rate @ All Firing Rates (Flow Switch Setting)	46 GPM	62 GPM

RECOMMENDED CLEARANCE FOR SERVICE ACCESS				
Front - 32"	Rear - 12"	Top - 12"	Left Side - 12"	Right Side - 12"

Notes:
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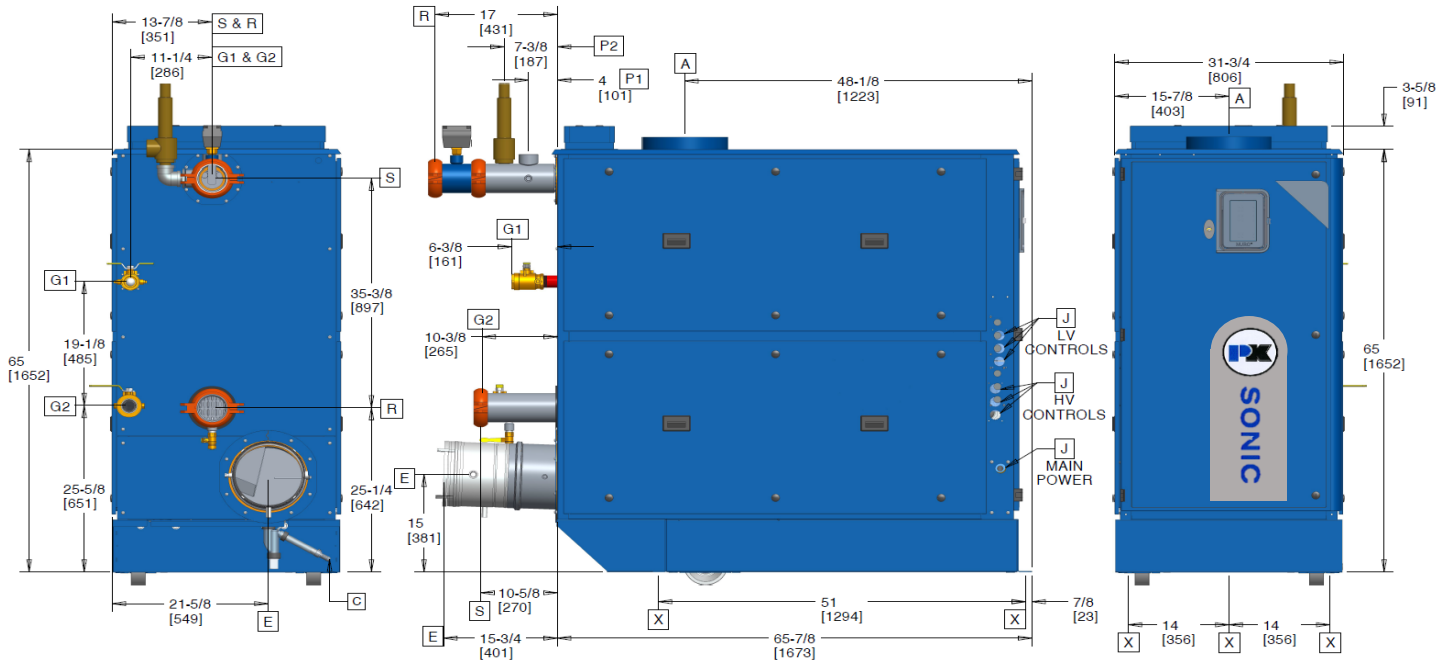
PROUDLY
DESIGNED & ASSEMBLED
IN THE U.S.A.

Rep Name: _____

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This SONIC boiler requires Category IV venting (condensing-positive pressure) or Category II venting† (condensing -negative pressure as defined in ANSI Z223.1/NFPA 54/CSA-B.149 latest edition.

†Category II venting must include the optional combustion air damper

BOILER CONNECTIONS	
A Combustion Air Inlet	12" dia. stub
C Condensate Drain	3/4" hose
E Exhaust Vent	10"
G1 Propane Gas	1-1/2" NPT-F
G2 Natural Gas	2" NPT-F
J Wiring Junction Boxes	inside cabinet
P1 Pressure Relief Valve	see list for options
P2 Pressure Relief Valve	see list for options
R Boiler Return, Victaulic® clamp	4" pipe, grooved
S Boiler Supply, Victaulic clamp	4" pipe, grooved
X Anchor Bolt Locations	(6) 9/16" Bolt Holes

MODEL SELECTION				
Boilers	□ SC-3000		□ SC-4000	
	□ DUAL FUEL			
Fuel Options	□ NG	□ LP	□ NG	□ LP
Min Inlet Gas Pressure	3.5" w.c.	7.0" w.c.	3.5" w.c.	7.0" w.c.
Max Inlet Gas Pressure	14" w.c.			
Max Input (BTU/hr)	3,000,000		4,000,000	
Max Output (BTU/hr)	2,907,000		3,840,000	
Boiler HP	86.9		114.7	
Min Input (BTU/hr)	581,400		768,000	
Turndown Ratio	5:1		5:1	
Estimated Operating/Shipping Weight †	2045* lbs.		2095* lbs.	
Boiler Water Content	35 gallons			
Shipping Dimensions	36"x84"x80" (LxWxH)			
Power Supply	□ 208/240V 3ph 60 Hz		□ 208/240V 3ph 60 Hz	
	□ 440/480V 3ph 60 Hz		□ 440/480V 3ph 60 Hz	
Operating Current	< 20 Amps			
Recommended Minimum Circuit Capacity	20 Amps			

†Add 100 lbs. to the listed values when considering a dual fuel models

BOILER CONTROLS	
ASME CSD-1 is standard	
Complies with: GE GAP (IRI) guidelines GAP.4.1.0 and GAP.4.1.3	
FM Global 6-4 Section 1.0	
Main Gas Train with Dual Shut-off	
Integrated Boiler Control, NURO Series	
Operating Thermostat, 42°-195°F (5.6°-91°C)	
High Limit Thermostat, Manual Reset, 100°-197°F (38°-92°C)	
High Exhaust Back Pressure Switch	
LWCO/Flow Switch, Paddle Type & LWCO, Probe Type	
Combustion Air Proving Switch, Differential Pressure Type	
Combustion Blower, Variable Speed, 2500 Watt	

PRESSURE RELIEF VALVE/PRESSURE-TEMPERATURE GAUGE		
Shipped Loose for Field Installation		
<input type="checkbox"/>	30 PSIG 1-1/2"x 2"	0-100 psi/30-240°F
<input type="checkbox"/>	50 PSIG 1-1/4"x 1-1/4"	0-100 psi/30-240°F
<input type="checkbox"/>	60 PSIG 1-1/4"x 1-1/4"	0-100 psi/30-240°F
<input type="checkbox"/>	75 PSIG 1-1/4"x 1-1/4"	0-240 psi/30-240°F
<input type="checkbox"/>	80 PSIG 1-1/4"x 1-1/4"	0-240 psi/30-240°F
<input type="checkbox"/>	100 PSIG 1"x 1-1/4"	0-240 psi/30-240°F
<input type="checkbox"/>	125 PSIG 1"x 1"	0-240 psi/30-240°F
<input type="checkbox"/>	150 PSIG 1"x 1"	0-240 psi/30-240°F

A.S.M.E. SECTION IV DESIGN DATA	SC-3000	SC-4000
Max Pressure	160 PSIG	
Min Pressure	14.5 PSIG	
Max Allowable Temperature	210°F	
Max Operating Temperature	200°F	
Heated Surface Area, Section IV	106 ft ²	
Heated Surface Area, Section VIII	840 ft ²	
Flow Rate @ 20°FΔT	290.7 GPM	384 GPM
Min Flow Rate @ All Firing Rates (Flow Switch Setting)	93 GPM	125 GPM

RECOMMENDED CLEARANCE FOR SERVICE ACCESS				
Front - 32"	Rear - 12"	Top - 12"	Left Side - 12"	Right Side - 12"

Notes:

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