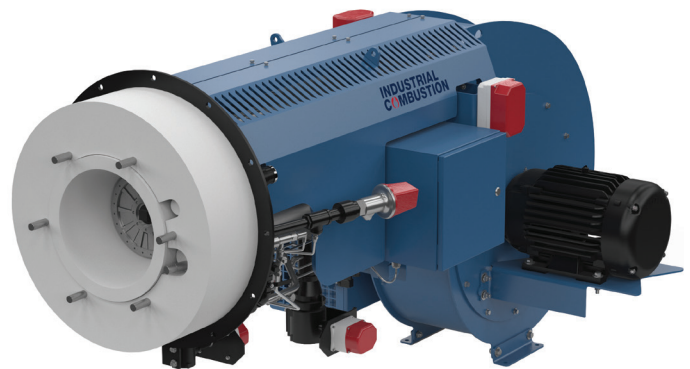


**INDUSTRIAL
COMBUSTION**

SBR-30G

SBR-30LG

Low-NOx Burner Series

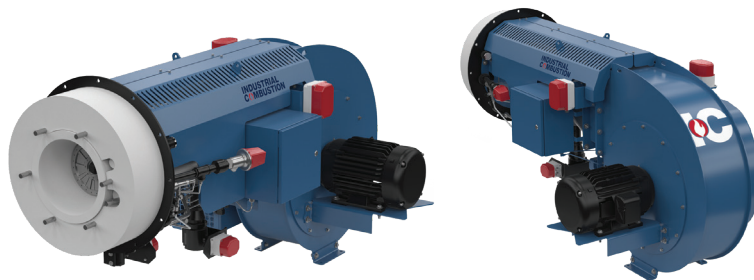


Dimensions and Ratings

SBR-30G
Gas Only
16.8 - 37.8 MMBtu
400 - 900 HP

The SBR-30 series is designed for a variety of boiler types such as firetubes, heaters, and watertubes.

Capable of less than 30 ppm NOx emissions without FGR, the SBR-30 series features a unique firing head design to achieve controlled combustion, leading to low emissions with 3% O₂. Advanced technology allows the SBR-30 series to offer Low-NOx, low CO emissions and up to 10:1 turndown on natural gas.



Standard Equipment

- 120/1/60 Control circuit, various motor voltages
- Panel signal lights: power on, main fuel, ignition, and flame failure
- Burner-mounted junction box with remote panel
- Combustion air proving switch
- Main shutoff fuel valves
- Gas-Electric ignition
- Electronic parallel positioning with capacity control

Series Features

S = STANDARD

O = OPTIONAL

N/A = NOT AVAILABLE

	400	500	600	700	800	900
Flame Safeguard	S	S	S	S	S	S
Self-Check Flame Safeguard	O	O	O	O	O	O
3600 RPM Combustion Fan	S	S	S	S	S	S
Full Modulation Firing	S	S	S	S	S	S
Parallel Positioning System	S	S	S	S	S	S
Dry Oven	S	S	S	S	S	S
O ₂ Trim	O	O	O	O	O	O
Variable Frequency Drive (VFD)	O	O	O	O	O	O
High and Low Gas Pressure Switches	S	S	S	S	S	S
Normally Open (N.O.) Vent Valve or Leakage Detection	S	S	S	S	S	S
Main Gas Regulator and (2) Gas Shutoff Cocks, (2) Automatic Main Shutoff Valves	S	S	S	S	S	S
Gas Flow Control Valves Mounted on Burner Piping	S	S	S	S	S	S

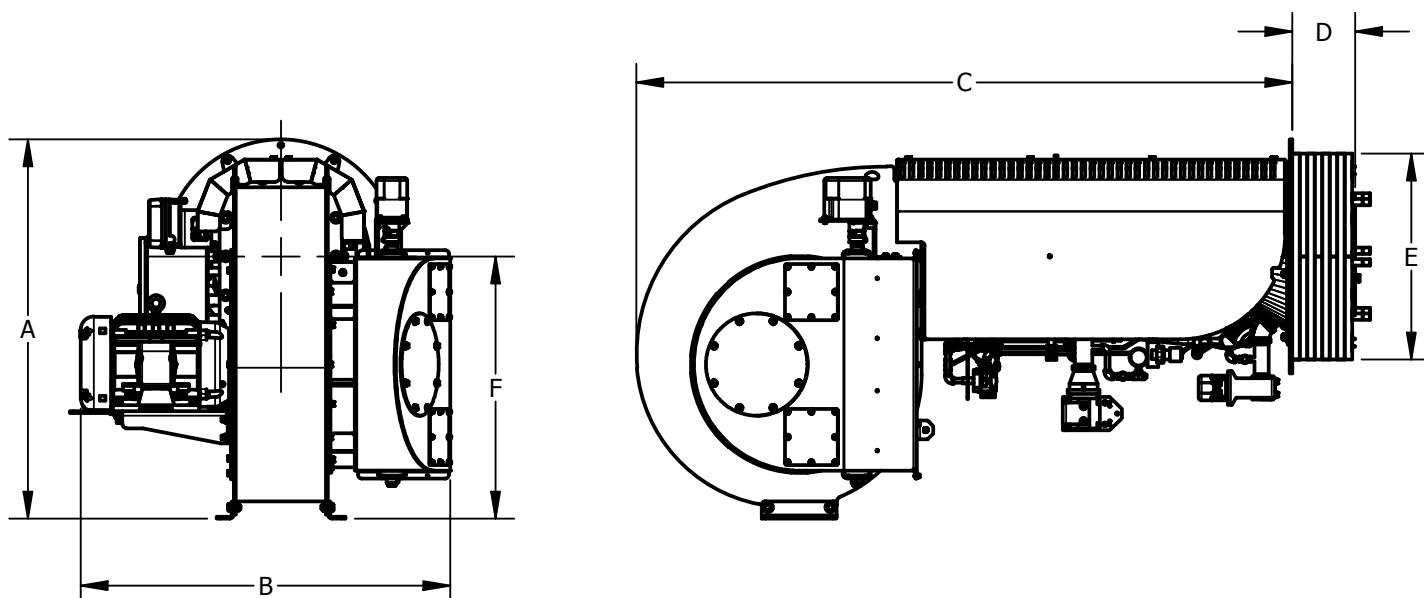
Capacities and Ratings

BURNER MODEL	FRAME SIZE	GAS INPUT (MBH)	BHP @ 80% EFF.	MOTOR HP	GAS PRESSURE REQUIRED (PSI)	RECOMMENDED FURNACE DIAMETER	RECOMMENDED FURNACE LENGTH	FURNACE PRESSURE
SBR30G-168	3	16,800	400	20	5	37	143	3.6
SBR30G-210	3	21,000	500	25	5	45	146	4.3
SBR30G-252	4	25,200	600	30	5	45	152	5.6
SBR30G-294	4	29,400	700	40	5	50	160	5.4
SBR30G-335	4	33,500	800	40	8	50	160	7
SBR30G-378	4	37,800	900	40	8	52	200	3.5

Notes:

1. For values outside guidelines, connect with factory to evaluate possibilities of usage of SBR-30
2. SBR-30G Elevation is 0~2000
3. SBR-30G Ambient Temperature consists of 60~100 (°F)
4. SBR-30G NOx (ppm, @3% O2) Burning Natural Gas is ≤30

5. SBR-30G NOx (ppm, @3% O2) Burning #2 Fuel Oil is uncontrolled
6. SBR-30G CO (ppm @3% O2) Burning Natural Gas and #2 Fuel Oil is ≤100
7. SBR-30G Turndown Burning Natural Gas is Up to 10:1
8. SBR-30G Operating Excess O2 is 3.0~3.5
9. SBR-30G has no FGR



Dimensions are for reference only. Dimensions and specifications are subject to change without notice.

BURNER FRAME SIZE & MODEL NUMBER							
	DIM	400	500	600	700	800	900
Length in Inches							
Length to Burner Head	C	90.8	90.8	101.7	101.7	101.7	101.7
Burner Head Length	D	7.0	8.0	8.0	9.0	9.0	11.0
Width in Inches							
Overall Width	B	55.1	54.7	60.2	62.6	62.6	62.6
Height in Inches							
Overall Height	A	49.7	51.7	60.2	62.6	62.6	62.6
Centerline to Burner Support	F	35.0	35.0	35.0	35.0	35.0	35.0
Oven Diameter in Inches							
Overall Diameter	E	30.0	33.25	33.25	36.0	36.0	36.8

SBR-30G
Gas Only
37.8 - 54.6 MMBtu
900 - 1300 HP

The SBR-30 series is designed for a variety of boiler types such as firetubes, heaters, and watertubes. Capable of less than 30 ppm NOx emissions without FGR, the SBR-30 series features a unique firing head design to achieve controlled combustion, leading to low emissions with 3% O₂. Advanced technology allows the SBR-30 series to offer Low-NOx, low CO emissions and up to 10:1 turndown on natural gas.



Standard Equipment

- 120/1/60 Control circuit, various motor voltages
- Panel signal lights: power on, main fuel, ignition, and flame failure
- Burner-mounted junction box with remote panel
- Combustion air proving switch
- Main shutoff fuel valves
- Gas-Electric ignition
- Hinged rear-access cover
- Electronic parallel positioning with capacity control
- Top-mounted blower

Series Features

S = STANDARD

O = OPTIONAL

N/A = NOT AVAILABLE

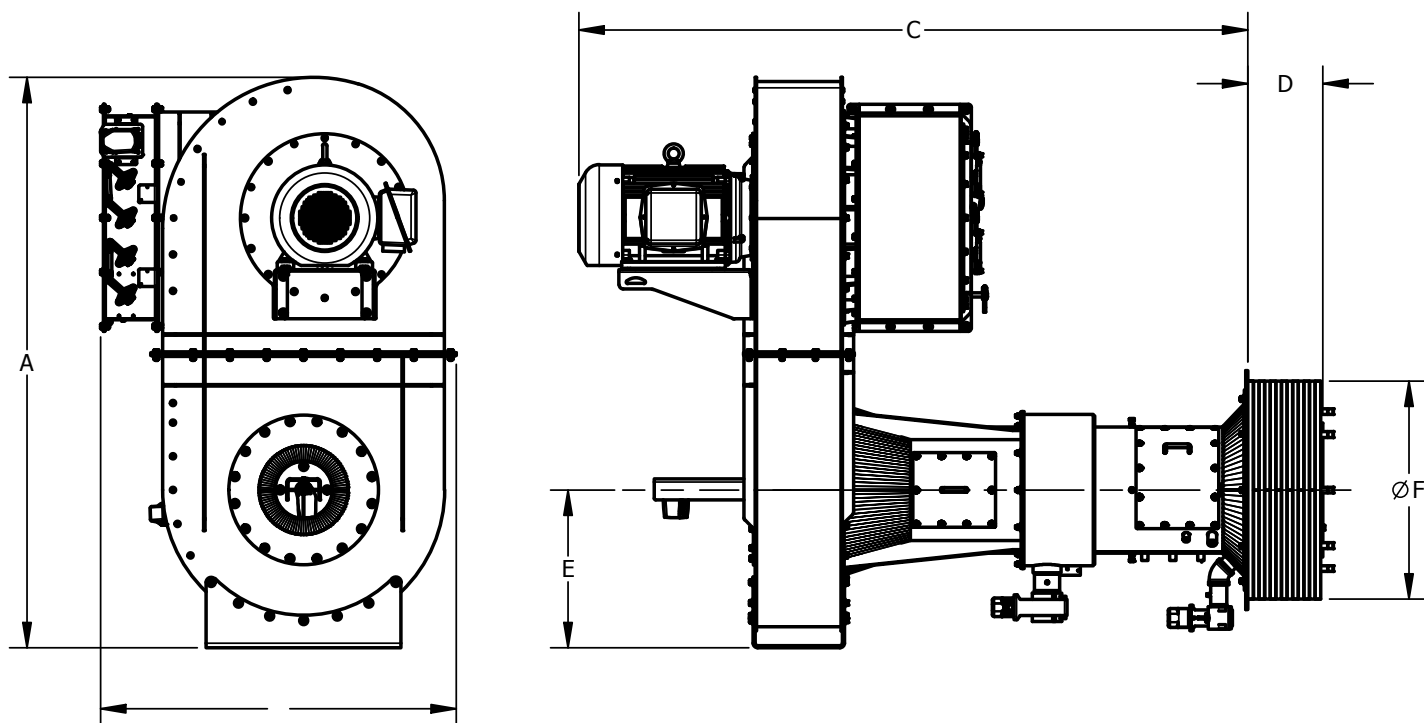
	900	1000	1100	1200	1300
Flame Safeguard	S	S	S	S	S
Self-Check Flame Safeguard	O	O	O	O	O
3600 RPM Combustion Fan	S	S	S	S	S
Full Modulation Firing	S	S	S	S	S
Parallel Positioning System	S	S	S	S	S
Dry Oven	S	S	S	S	S
O ₂ Trim	O	O	O	O	O
Variable Frequency Drive (VFD)	O	O	O	O	O
High and Low Gas Pressure Switches	S	S	S	S	S
Normally Open (N.O.) Vent Valve or Leakage Detection	S	S	S	S	S
Main Gas Regulator and (2) Gas Shutoff Cocks, (2) Automatic Main Shutoff Valves	S	S	S	S	S
Gas Flow Control Valves Mounted on Burner Piping	S	S	S	S	S

Capacities and Ratings

BURNER MODEL	FRAME SIZE	GAS INPUT (MBH)	BHP @ 80% EFF.	MOTOR HP	GAS PRESSURE REQUIRED (PSI)	RECOMMENDED FURNACE DIAMETER	RECOMMENDED FURNACE LENGTH	FURNACE PRESSURE
SBR30G-378	5	37,800	900	50	8	52	200	8
SBR30G-420	5	42,000	1000	50	8	52	200	4.1
SBR30G-462	5	46,200	1100	50	8	56	210	4.8
SBR30G-504	6	50,400	1200	60	8	56	210	5.6
SBR30G-546	6	54,600	1300	60	8	60	225	5.6

Notes:

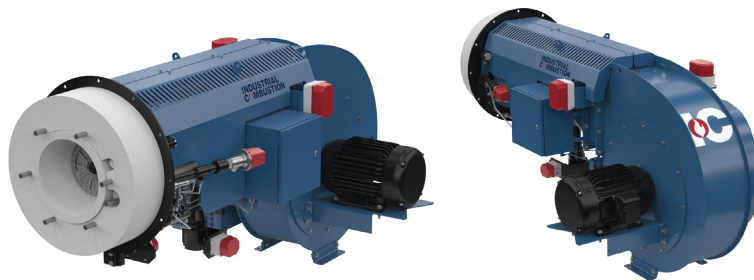
- For values outside guidelines, connect with factory to evaluate possibilities of usage of SBR-30
- SBR-30G Elevation is 0~2000
- SBR-30G Ambient Temperature consists of 60~100 (°F)
- SBR-30G NOx (ppm, @3% O2) Burning Natural Gas is ≤30
- SBR-30G NOx (ppm, @3% O2) Burning #2 Fuel Oil is uncontrolled
- SBR-30G CO (ppm @3% O2) Burning Natural Gas and #2 Fuel Oil is ≤100
- SBR-30G Turndown Burning Natural Gas is Up to 10:1
- SBR-30G Operating Excess O2 is 3.0~3.5
- SBR-30G has no FGR



Dimensions are for reference only. Dimensions and specifications are subject to change without notice.

BOILER HP	A	B	C	D	E	F
900	95.7	59.1	112.8	12.4	26.1	37.5
1000	95.7	59.1	112.8	12.4	26.1	37.5
1100	95.7	59.1	112.8	12.4	26.1	37.5
1200	101.7	63.4	119.3	13.4	28.1	38.9
1300	101.7	63.4	119.3	14.4	28.1	38.9

SBR-30LG
Gas and #2 Oil
16.8 - 37.8 MMBtu
400 - 900 HP



The SBR-30 series is designed for a variety of boiler types such as firetubes, heaters, and watertubes.

Capable of less than 30 ppm NOx emissions without FGR, the SBR-30 series features a unique firing head design to achieve controlled combustion, leading to low emissions with 3% O₂. Advanced technology allows the SBR-30 series to offer Low-NOx and low CO emissions.

Standard Equipment

- 120/1/60 control unit, various motor voltages
- Panel signal lights: power on, main fuel, ignition, and flame failure
- Burner-mounted junction box with remote panel
- Combustion air proving switch
- Main shutoff fuel valves
- Gas-Electric Ignition
- Fuel changeover switch
- Electronic parallel positioning with capacity control

Series Features

S = STANDARD

O = OPTIONAL

N/A = NOT AVAILABLE

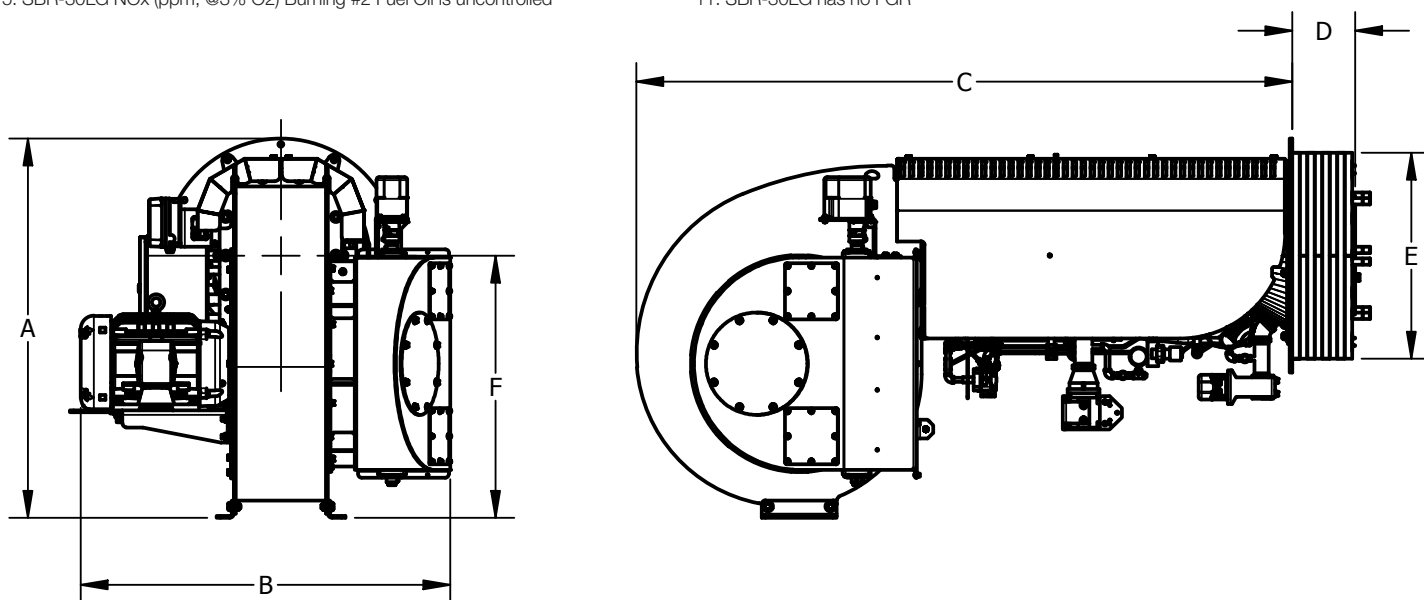
	400	500	600	700	800	900
Flame Safeguard with UV Scanner (IR Scanner Available)	S	S	S	S	S	S
3600 RPM Combustion Fan	S	S	S	S	S	S
Full Modulation Firing	S	S	S	S	S	S
Parallel Positioning System	S	S	S	S	S	S
Dry Oven	O	O	O	O	O	O
O ₂ Trim	O	O	O	O	O	O
Variable Frequency Drive (VFD)	O	O	O	O	O	O
High and Low Gas Pressure Switches	S	S	S	S	S	S
Normally Open (N.O.) Vent Valve or Leakage Detection	S	S	S	S	S	S
Main Gas Regulator and (2) Gas Shutoff Cocks, (2) Automatic Main Shutoff Valves	S	S	S	S	S	S
Gas Flow Control Valves Mounted on Burner Piping	S	S	S	S	S	S
2-Way Motorized Oil Valve with Proof of Closure (POC)	S	S	S	S	S	S
Burner-Mounted Oil Flow Control Valve	S	S	S	S	S	S
Separately Mounted Air Compressor Module	S	S	S	S	S	S
3-Way motorized POC Valve with POC	S	S	S	S	S	S
Low Oil Pressure Switch	S	S	S	S	S	S
Atomizing Air Proving Switch	S	S	S	S	S	S
Fuel Oil Strainer (Shipped Loose)	O	O	O	O	O	O

Capacities and Ratings

BURNER MODEL	FRAME SIZE	GAS INPUT (MBH)	#2 OIL INPUT (US GPH)	BHP @ 80% EFF.	FAN MOTOR HP	RECOMMENDED FURNACE DIAMETER	RECOMMENDED FURNACE LENGTH	FURNACE PRESSURE	GAS PRESSURE REQUIRED (PSI)	OIL AND ATOMIZING PRESSURE AT BURNER INLET (PSIG)
SBR30LG-168	3	16,800	120	400	20	37	143	3.6	5	50
SBR30LG-210	3	21,000	150	500	25	45	146	4.3	5	50
SBR30LG-252	4	25,200	180	600	30	45	152	5.6	5	50
SBR30LG-294	4	29,400	210	700	40	50	160	5.4	5	50
SBR30LG-336	4	33,600	240	800	40	50	160	7	8	100
SBR30LG-378	4	37,800	270	900	40	52	200	3.5	8	100

Notes:

- For values outside guidelines, connect with factory to evaluate possibilities of usage of SBR-30
- SBR-30LG Elevation is 0~2000
- SBR-30LG Ambient Temperature consists of 60~100 (°F)
- SBR-30LG NO_x (ppm, @3% O₂) Burning Natural Gas is ≤30
- SBR-30LG NO_x (ppm, @3% O₂) Burning #2 Fuel Oil is uncontrolled
- SBR-30LG CO (ppm @3% O₂) Burning Natural Gas and #2 Fuel Oil is ≤100
- SBR-30LG Operating Excess O₂ is 3.0~3.5
- SBR-30LG Smoke # Burning #2 Fuel Oil is <1
- SBR-30LG Turndown Burning #2 Fuel Oil is Up to 5:1
- SBR-30LG Turndown Dual Fuel Burner Burning Natural Gas is Up to 6:1
- SBR-30LG has no FGR



Dimensions are for reference only. Dimensions and specifications are subject to change without notice.

		BURNER FRAME SIZE & MODEL NUMBER					
	DIM	400	500	600	700	800	900
Length in Inches							
Length to Burner Head	C	90.8	90.8	101.7	101.7	101.7	101.7
Burner Head Length	D	7.0	8.0	8.0	9.0	9.0	11.0
Width in Inches							
Overall Width	B	55.1	54.7	60.2	62.6	62.6	62.6
Height in Inches							
Overall Height	A	49.7	51.7	60.2	62.6	62.6	62.6
Centerline to Burner Support	F	35.0	35.0	35.0	35.0	35.0	35.0
Oven Diameter in Inches							
Overall Diameter	E	30.0	33.25	33.25	36.0	36.0	36.8

SBR-30LG
Gas and #2 Oil
37.8 - 54.6 MMBtu
900 - 1300 HP

The SBR-30 series is designed for a variety of boiler types such as firetubes, heaters, and watertubes. Capable of less than 30 ppm NOx emissions without FGR, the SBR-30 series features a unique firing head design to achieve controlled combustion, leading to low emissions with 3% O2. Advanced technology allows the SBR-30 series to offer Low-NOx and low CO emissions.



Standard Equipment

- 120/1/60 control unit, various motor voltages
- Panel signal lights: power on, main fuel, ignition, and flame failure
- Burner-mounted junction box with remote panel
- Combustion air proving switch
- Gas-Electric Ignition
- Fuel changeover switch
- Hinged rear-access cover
- Electronic parallel positioning with capacity control

Series Features

S = STANDARD

O = OPTIONAL

N/A = NOT AVAILABLE

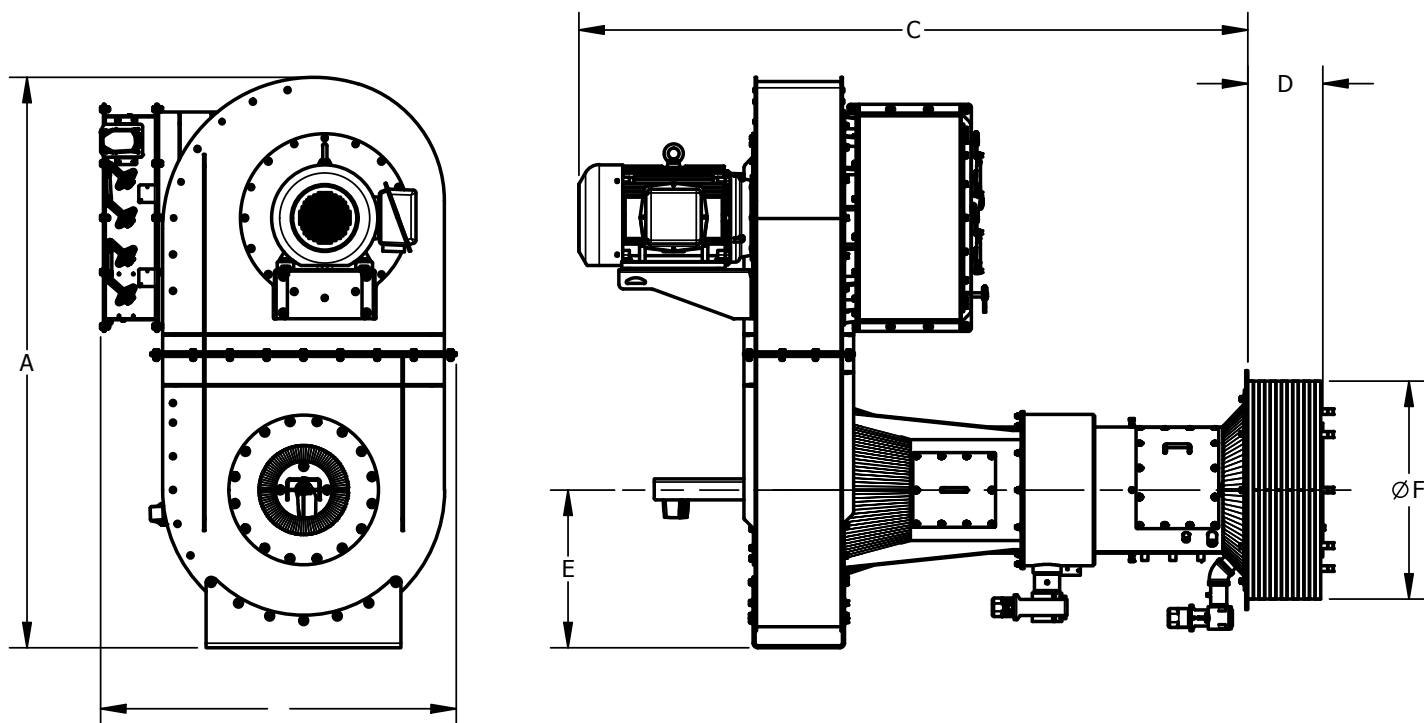
	900	1000	1100	1200	1300
Flame Safeguard with UV Scanner (IR Scanner Available)	S	S	S	S	S
3600 RPM Combustion Fan	S	S	S	S	S
Full Modulation Firing	S	S	S	S	S
Parallel Positioning System	S	S	S	S	S
Dry Oven	O	O	O	O	O
O ₂ Trim	O	O	O	O	O
Variable Frequency Drive (VFD)	O	O	O	O	O
High and Low Gas Pressure Switches	S	S	S	S	S
Normally Open (N.O.) Vent Valve or Leakage Detection	S	S	S	S	S
Main Gas Regulator and (2) Gas Shutoff Cocks, (2) Automatic Main Shutoff Valves	S	S	S	S	S
Gas Flow Control Valves Mounted on Burner Piping	S	S	S	S	S
2-Way Motorized Oil Valve with Proof of Closure (POC)	S	S	S	S	S
Burner-Mounted Oil Flow Control Valve	S	S	S	S	S
Separately Mounted Air Compressor Module	S	S	S	S	S
3-Way motorized POC Valve with POC	S	S	S	S	S
Low Oil Pressure Switch	S	S	S	S	S
Atomizing Air Proving Switch	S	S	S	S	S
Fuel Oil Strainer (Shipped Loose)	O	O	O	O	O

Capacities and Ratings

BURNER MODEL	FRAME SIZE	GAS INPUT (MBH)	#2 OIL INPUT (US GPH)	BHP @ 80% EFF.	FAN MOTOR HP	RECOMMENDED FURNACE DIAMETER	RECOMMENDED FURNACE LENGTH	FURNACE PRESSURE	GAS PRESSURE REQUIRED (PSI)	OIL AND ATOMIZING PRESSURE AT BURNER INLET (PSIG)
SBR30LG-378	5	37,800	270	900	40	52	200	8	8	100
SBR30LG-420	5	42,000	300	1000	50	52	200	4.1	8	100
SBR30LG-462	5	46,200	330	1100	50	56	210	4.8	8	100
SBR30LG-504	6	50,400	360	1200	60	56	210	5.6	8	100
SBR30LG-546	6	54,600	390	1300	60	60	225	5.6	8	100

Notes:

- For values outside guidelines, connect with factory to evaluate possibilities of usage of SBR-30
- SBR-30LG Elevation is 0~2000
- SBR-30LG Ambient Temperature consists of 60~100 (°F)
- SBR-30LG NOx (ppm, @3% O2) Burning Natural Gas is ≤30
- SBR-30LG NOx (ppm, @3% O2) Burning #2 Fuel Oil is uncontrolled
- SBR-30LG CO (ppm @3% O2) Burning Natural Gas and #2 Fuel Oil is ≤100
- SBR-30LG Operating Excess O2 is 3.0~3.5
- SBR-30LG Smoke # Burning #2 Fuel Oil is <1
- SBR-30LG Turndown Burning #2 Fuel Oil is Up to 5:1
- SBR-30LG Turndown Dual Fuel Burner Burning Natural Gas is Up to 6:1
- SBR-30LG has no FGR



Dimensions are for reference only. Dimensions and specifications are subject to change without notice.

BOILER HP	A	B	C	D	E	F
900	95.7	59.1	112.8	12.4	26.1	37.5
1000	95.7	59.1	112.8	12.4	26.1	37.5
1100	95.7	59.1	112.8	12.4	26.1	37.5
1200	101.7	63.4	119.3	13.4	28.1	38.9
1300	101.7	63.4	119.3	14.4	28.1	38.9



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