INDUSTRIAL COMBUSTION



BURNER SOLUTIONS

Quick Product Reference Guide



The Industrial Combustion burner difference.

Industrial Combustion is a leading manufacturer of burners designed for commercial, industrial, and institutional applications. The history of our product line is a long and enviable one. For nearly 70 years, our burners have been part of virtually every major boiler manufacturer's packaged products.

Superior design is the key to our products' ongoing popularity. Industrial Combustion was the first company to introduce air-atomizing systems to burner designs. Since then, we have led the industry in the development of new burner technologies. Our commitment to research and development assures that customers receive the most technologically advanced burner systems available.

Today, our wide range of products has enabled the company to become a leader in both domestic and international markets. In addition to use as standard equipment for most leading boiler manufacturers, Industrial Combustion products are the burner of choice when upgrading existing boiler installations for maximum fuel efficiency.

Our burners are developed to deliver an impressive return on investment and feature the following characteristics:

- Maximum efficiency: True forced draft design controls the air and fuel mixture, resulting in complete combustion.
- Low maintenance: Modern, reliable controls maintain adjustment for dependable performance.
- **Save energy:** Retrofit your boilers with our high-efficiency, state-of-the-art burners.

Industries Served:

- Healthcare
- Chemical
- Food & Beverage
- Education
- Commercial
- Government & Military
- Manufacturing
- Oil Sands
- Petroleum & Refineries
- Pharmaceutical & Bio-Tech
- Pulp & Paper
- Utilities

		Light Co	mmercial	Commercial/ Institutional	Light Industrial	Industrial	Heavy Industrial
Osmasiku	MMBTU (Input)	0.4	3	8	15	50	92
Capacity	BHP (BHP = 42,000 BTU/hr)	10	75	200	375	1,200	2,200
	Commercial Burners						
	Industrial Burners						
Burners	Special Application Burners						

Products Overview

XL/LNXL/NTXL - Series

■ Designed for large firetube and watertube applications

■ Fuels: Gas, #2 Oil, or Combination

■ Gas Input (MBTU/hr): 37,800 to 92,400

■ Oil Input (US GPH): 270 to 660

■ Thermal Output (BHP): 900 to 2,200

■ Shipping Weight (lbs): 12,000 approx.

NOUSTRAL C'AIGUSTON	
Mode of	Parallel

Emissions	Turndown	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	FIIA	
Uncontrolled	Up to 10:1	378 - 924	900 - 2,200	6	Full Modulation	Gas, Oil, Comb.	Standard
<30 PPM	Up to 10:1	378 - 924	900 - 2,200	6	Full Modulation	Gas & Comb.	Standard
<9 PPM	Up to 6:1	378 - 924	900 - 2,200	6	Full Modulation	Gas, Oil, Comb.	Standard

Note: 10:1 turn down with variable speed drive

SBR-30 - Series

 Designed for a variety of boiler types such as firetubes and watertubes

■ Fuels: Gas, #2 Oil

■ Gas Input (MBTU/hr): 16,800 to 54,600

■ Oil Input (US GPH): 120 to 390

■ Thermal Output (BHP): 400 to 1,300

■ Shipping Weight (lbs): 2,300 to 5,000



Emissions	Turndown	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	Fuel	Parallel Positioning
<30 PPM	Up to 10:1	168 - 546	400 - 1,300	3.6 to 5.6	Full Modulation	Gas, Oil	Standard

Note: 10:1 turn down with variable speed drive

SBR-5 - Series

Designed for firetubes and watertubes

■ Fuels: Gas, ASTM 2D-S15 (ultra low sulfur diesel)

■ Gas Input (MBTU/hr): 10,500 to 42,000

■ Oil Input (US GPH): 120 to 390

■ Thermal Output (BHP): 250 to 1,000

■ Shipping Weight (lbs): 2,300 to 5,000



Emissions	Turndown	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	Fuel	Parallel Positioning	
<5 PPM	Up to 6:1	105 - 420	250 - 1,000	3.6 to 5.6	Full Modulation	Gas, Oil	Standard	

S1/LNS1 - Series

Designed for a wide range of applications such as firetube and firebox boilers, heaters, furnaces, kilns and dryers

Fuels: Gas, #2-6 Oil, or CombinationGas Input (MBTU/hr): 46,200 to 63,000

■ Oil Input (US GPH): 330 to 450

Thermal Output (BHP): 1,100 to 1,500Shipping Weight (lbs): 7,000 to 8,750



Emissions	Turndown	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	Fuel	Parallel Positioning
Uncontrolled	Up to 6:1	462 - 630	1,100 - 1,500	8	Full Modulation	Gas, Oil, Comb.	Standard
<30 PPM	Up to 6:1	462 - 630	1,100 - 1,500	8	Full Modulation	Gas, Oil, Comb.	Standard

D/LND/NTD - Series

Designed for a wide range of applications such as firetube and firebox boilers, heaters, furnaces, kilns and dryers

■ Fuels: Gas, #2-6 Oil, or Combination ■ Gas Input (MBTU/hr): 3,360 to 42,000

Oil Input (US GPH): 24 to 300
Thermal Output (BHP): 80 to 1,000
Shipping Weight (lbs): 1,000 to 5,500



Emissions	Turndown	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	Fuel	Parallel Positioning
Uncontrolled	Up to 6:1	42 - 420	100 - 1,000	1.5 - 4	Full Modulation	Gas, Oil, Comb.	Optional
<30 PPM	Up to 6:1	34 - 420	80 - 1,000	5.2	Full Modulation	Gas & Comb.	Standard
<9 PPM	Up to 6:1	126 - 336	300 - 800	4.1 - 7.7	Full Modulation	Gas, Oil, Comb.	Standard

Burner Solutions For Any Need

Industrial Combustion offers a choice of burner capacities ranging from 375,000 to 100,000,000 BTU per hour. These units provide superior performance in boiler, heater, furnace, kiln, and dryer applications and are designed to perform to maximum efficiency with either gas or oil. Combination units enable operators to use the most economical fuel without costly equipment changeover or adjustments.

Special application burners exceeding standard inputs can be engineered by our industrial burner division.

E/LNE - Series

■ Designed for firetube, firebox, heaters, kilns, dryers and watertube applications

Fuels: Gas, #2 Oil, or CombinationGas Input (MBTU/hr): 16,800 to 42,000

Oil Input (US GPH): 120 to 300Thermal Output (BHP): 400 to 1,000

Shipping Weight (lbs): 3,150



Emissions	Turndown	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	Fuel	Parallel Positioning
Uncontrolled	Up to 10:1	168 - 420	400 - 1,000	4 - 9	Full Modulation	Gas, Oil, Comb.	Standard
<30 PPM	Up to 10:1	168 - 420	400 - 1,000	4 - 9	Full Modulation	Gas & Comb.	Standard

Note: 10:1 turn down with variable speed drive

V - Series

Designed for firetube, watertube, cast iron, firebox, ovens, kilns and heater applications

■ Fuels: Gas, #2 Oil, or Combination

■ Gas Input (MBTU/hr): 1,300 to 16,800

Oil Input (US GPH): 9.3 to 120
Thermal Output (BHP): 31 to 400
Shipping Weight (lbs): 450 to 1,450



Emissions	Turndown	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	Fuel	Parallel Positioning
Uncontrolled	Up to 8:1	13 - 168	31 - 400	0.4 - 4.3	Full Modulation	Gas, Oil, Comb.	Optional
<30 PPM	Up to 5:1	13 - 147	31 - 350	0.5 - 4.8	Full Modulation	Gas, Oil, Comb.	Standard



Hydrogen Blend Ready

Can be used with a hydrogen blend up to a maximum of 20% H₂. Wobbe index to be within 10% of NG. Supply pressure and gas valve sizing to be selected accordingly. For more information on hydrogen combustion please connect with Industrial-Combustion or your local Industrial-Combustion representative.

MTH - Series

■ Designed for process heating applications such as thermal fluid system and hot oil heating, firetube, watertube, firebox, driers and ovens

■ Fuels: Gas

Gas Input (MBTU/hr): 3,800 to 63,000Thermal Output (BHP): 90 to 1,500

■ Shipping Weight (lbs): 700 to 12,000 approx.



Emissions	Turndown	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	Fuel	Parallel Positioning	
<9 PPM	Up to 5:1	38 - 630	90 - 1,500	2 - 12	Full Modulation	Gas	Standard	

Q - Series

■ Designed for cast iron sectional boilers, firebox, commercial watertube, firetube, furnace and oven applications

■ Fuels: Gas

Gas Input (MBTU/hr): 375 to 3,800
Thermal Output (BHP): 9 to 90
Shipping Weight (lbs): 350 to 550



Emissions	Model Range	Boiler Size (BHP)	Furnace Pressure (inch w.c.)	Mode of Operation	Fuel	Variable Speed Drive
Uncontrolled	37 - 380	9 - 90	0.75 - 1	Modulation/Lo-Hi-Lo	Gas	Standard
Controlled	130 - 210	20 - 49.5	0.75 - 1	Modulation/Lo-Hi-Lo	Gas	Standard

The right burner for virtually any application.

Designed for maximum efficiency and low emissions, Industrial Combustion offers the right burner solution for nearly any boiler room application. With our extensive engineering expertise and vast aftermarket support network, we can help determine which burner is right for you, regardless of boiler manufacturer.

		Nov. Levels Recommended Capacity (Horsepower)													
		NOx Levels	Boiler Types	0.375 (8.9)	1.3 (31)	3.4 (80.0)	3.8 (90.0)	10.5 (250)	16.8 (400)	37.8 (900)	42.0 (1,000)	46.2 (1,100)	54.6 (1,300)	63.0 (1,500)	92.4 (2,200)
	XL Series #2 Oil, Natural Gas, Propane	Uncontrolled or less than 9 PPM NOx	Firetube Industrial Watertube										4 MMBT(200 BHP)		
	S1 Series #2-#6 Oil, Natural Gas, Propane	Uncontrolled or less than 30 PPM NOx	Firetube Industrial Watertube										–63 MM)–1,500 l		
	SBR-30 Series #2 Oil, Natural Gas	Less than 30 PPM NOx	Firetube Industrial Watertube								-54.6 MN - 1,300 l				
	SBR-5 Series Natural Gas, ASTM 2D-S15, Combo	Less than 5 PPM NOx	Firetube Industrial Watertube						0.5-42.0 (250-1,0						
	E Series #2 Oil, Natural Gas, Propane	Uncontrolled or less than 30 PPM NOx	Firetube Firebox Commercial Watertube Cast Iron Boilers Thermal Fluid Heater							-42.0 MN -1,000 I					
9	D Series #2-#6 Oil, Natural Gas, Propane, Alternative Fuels	Uncontrolled or less than 9 PPM NOx	Firetube Firebox Thermal Fluid Heater						MMBTU 00 BHP)	ı					
	MTH Series Gas only	Less than 9 PPM NOx	Firetube Watertube Boilers Oven Kiln Drier Thermal Fluid Heating						,) MMBTU 00 BHP)				
70.	V Series #2 Oil, Natural Gas, Propane	Uncontrolled or less than 30 PPM NOx	Firetube Firebox Watertube Cast Iron Boilers			1.3- (31	16.8 MM -400 Bł	BTU IP)							
	Q Series Gas only	Uncontrolled or controlled	Firetube Firebox Cast Iron Sectional Commercial Watertube Boilers Furnaces Ovens	0		3 MMBT() BHP)	J								

Controls Help Make the Difference.

Industrial Combustion burners can truly reach their full potential when paired with an appropriate, integrated burner management system. Only through proper controls can the burner constantly fire at peak performance. There are numerous options from several manufacturers that can add significant fuel savings and increased efficiency.

- Parallel Positioning
- Controlling Lead/Lag
- Variable-Speed Drive
- Adjusting Oxygen Trim



Touchscreen Controls

Industrial Combustion's advanced burner control systems include a complete burner cabinet featuring feedwater pump controls, water level controls, and a single-point power supply.

Request a Control Systems Comparison from your local representative.

Burner and Control Upgrades Are Easier Than Ever.

Industrial Combustion's engineering team can design a turnkey solution for any boiler and any application.

Contact an Industrial Combustion authorized distributor to help determine beneficial upgrades to your system.

Evaluate your burner and controls for an upgrade if:

- Existing burners are cycling on/off frequently wasting energy
- Your burner or boiler controls are more than 10 years old
- Burner controls are not fully integrated with boiler loads
- You must reduce emissions while maintaining efficiency
- Alternate fuels could provide energy savings and/or reduced emissions

