

E SERIES

8.4 TO 42.0 MM BTU/HR



**INDUSTRIAL
COMBUSTION**

Advanced Technology

Endless Possibilities.

Suitable for firetube, firebox, and watertube boilers; the E series features a low pressure drop firing head design and low blower motor horsepower requirement for increase efficiencies. Advanced technology allows the E series to offer low NOx emissions options, up to 10:1 turndown with natural gas, up to 8:1 turndown with light oil and up to 8:1 turndown with low NOx natural gas.

Engineered for maximized **EFFICIENCY** and fuel cost savings.



Swing-Away Air Housing

Provides easy access to the nozzle, scanner, pilot and diffuser for inspection or removal. No disconnection of fuel or power lines required

Air Compressor Module

A remote air compressor module provides air for all large oil models. The module includes IC's rotary vane, pressure lubricated air compressor, air/oil lubricating reservoir, oil level indicator, inlet air filter, air pressure adjusting valve and air pressure gauge.

Cam Trim

Cam trim is a standard feature that makes it possible to adjust the burner for consistent and precise fuel-to-air ratios throughout the firing range. Excess air is controlled to a minimum through the 14-point adjustment range.

Precise Oil Metering

An outstanding design feature on all IC air atomizing burners, the oil metering unit precisely meters oil volume and is not affected by changes in oil temperature or viscosity.

High Turndown

Up to 10:1 turndown with natural gas and 8:1 with the low NOx option. High turndown allows for reduced heat loss due to short cycling, faster response times to meet load demands and less mechanical cycling.

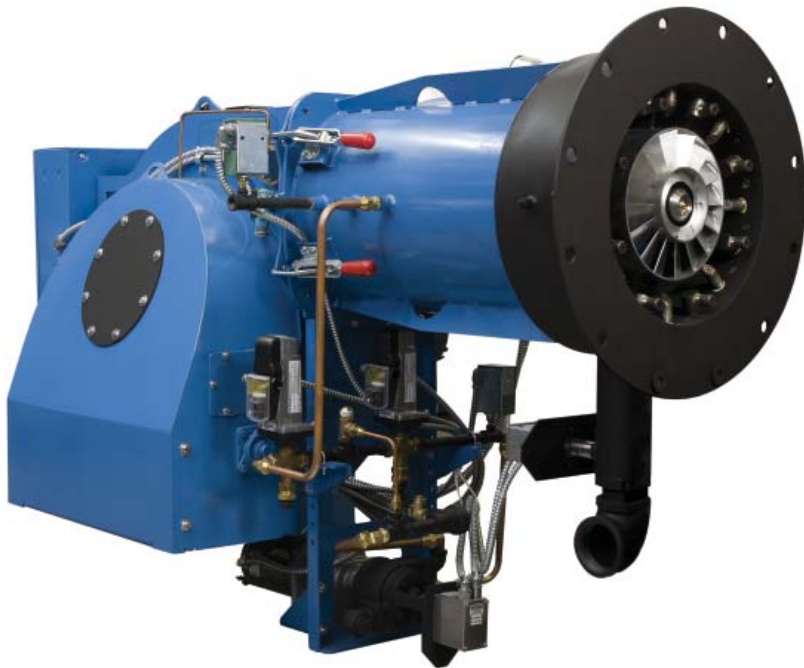
Low Blower Motor HP

Industrial Combustion utilizes an air fan with an air foil blade design which increases blower efficiency and lowers the blower motor horsepower, thereby increasing year-round electrical utility savings.

The E Burner Explained:

The E series burner offers: natural gas, propane gas, air atomized #2 oil and combination gas and oil fuel options from 8.4 to 42.0 MM BTU per hour. The LNE burner, capable of <30 PPM NOx emissions offers: natural gas, propane gas, air atomized #2 oil and combination gas and oil fuel options from 8.4 to 42.0 MM BTU per hour. Full modulation operation and cam trim are standard for greater efficiency and cost savings.

E/ LNE Burner



- Low-pressure** air atomizing system on oil with rotary vane compressor
- Piston-type** positive displacement oil metering system
- Cam Trim** 14-point adjustment range
- Parallel Positioning** available for optimal control throughout the firing range
- Rotary Air Damper** precise fuel-to-air ratios
- Hinged Air Housing** for easy access to internal components
- Gas Manifold** on oil burners standard for easy upgrade to combination units
- Combustion Air Fan** efficient airfoil blade design smoothly lifts airflow over the entire blade, resulting in less motor horsepower requirements and significant noise reduction when compared to standard force draft fans
- Induced FGR** FGR modulating valve and shutoff valve (LNE)
- No. 2 Oil** capability for back-up fuel (LNE)
- UL & cUL** listed

Emissions	Frame	Model Range	Boiler HP	Capacities		Mode of Operation	Fuel	Parallel Positioning
				MBH	GPH			
Uncontrolled	Size 1 - 3	84 - 420	200 - 1,000	8,400 - 42,000	60 - 300	Full Modulation	Gas, Oil, Comb.	Optional
<30 PPM	Size 1 - 3	84 - 420	200 - 1,000	8,400 - 42,000	60 - 300	Full Modulation	Gas & Comb.	Optional

Uncontrolled Emissions Configuration (EL, EG, ELG)

Burner Model & Frame Size	84-1	105-1	126-1	147-1	168-2	210-2	252-2	294-3	336-3	378-3	420-3
Gas Input (MBtu/hr)	8,400	10,500	12,600	14,700	16,800	21,000	25,200	29,400	33,600	37,800	42,000
Oil Input (US gph)	60	75	90	105	120	150	180	210	240	270	300
Boiler HP @ 80% Eff.	200	250	300	350	400	500	600	700	800	900	1,000
Blower Motor HP	5	5	5	7 1/2	15	15	15	20	20	25	30
Separate Compressor Motor HP 3 Phase	3	3	3	5	5	5	7 1/2	7 1/2	7 1/2	15	15
Oil Metering System Motor HP 3 Phase	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	1	1
Furnace Pressure ("w.c.)	4	4	4	4	4	4	4	4	4	4	4
Standard Gas Train Pipe Size (in.)	2 1/2	3	3	3	3	3	3	3	3	4	4
Gas Pressure Required (PSI)	2.1	2.2	2.5	2.7	3.0	3.9	4.3	2.6	3.1	3.6	3.7
Shipping Weight	1,500	1,500	1,500	1,500	2,200	2,200	2,200	5,000	5,000	5,000	5,000

<30 PPM Low NOx Configuration (LNEG, LNELG)

Burner Model & Frame Size	84-1	105-1	126-1	147-1	168-2	210-2	252-2	294-3	336-3	378-3	420-3
Gas Input (MBtu/hr)	8,400	10,500	12,600	14,700	16,800	21,000	25,200	29,400	33,600	37,800	42,000
Oil Input (US gph)	60	75	90	105	120	150	180	210	240	270	300
Boiler HP @ 80% Eff.	200	250	300	350	400	500	600	700	800	900	1,000
Blower Motor HP	5	5	7 1/2	10	15	20	25	30	30	40	50
Separate Compressor Motor HP 3 Phase	3	3	3	5	5	5	7 1/2	7 1/2	7 1/2	15	15
Oil Metering System Motor HP 3 Phase	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	1	1
Furnace Pressure ("w.c.)	4	4	4	4	4	4	4	4	4	4	4
Standard Gas Train Pipe Size (in.)	2 1/2	3	3	3	3	3	3	3	3	4	4
Gas Pressure Required (PSI)	2.1	2.2	2.5	2.7	3.0	3.9	4.3	2.6	3.1	3.6	3.7
FGR Line Piping Size	6	6	6	6	8	8	8	10	10	10	10
Shipping Weight	2,000	2,000	2,000	2,000	3,000	3,000	3,000	5,500	5,500	5,500	5,500

Input is based on fuel Btu content and altitude of 2,000 feet or less. If altitude > 2,000 feet and < 8,000 feet, derate capacity 4% per 1,000 feet over 2,000. Consult factory for higher altitudes. Gas input is based on natural gas with 1,000 Btu/cu.ft., 0.60 gravity, 0 "w.c. furnace pressure and the aforementioned conditions. Oil input based on 140,000 Btu/gal and the aforementioned conditions.



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