

# K SERIES

1.25 TO 14.65 MM BTU/HR



**INDUSTRIAL  
COMBUSTION**

# Efficient Technology.

## Forced draft dual fuel burner.

Suitable for firetube boilers; the K series features a multi-blade air shutter design which permits accurate air-to-fuel settings for maximum combustion efficiency. The K series is easily upgraded to a gas/oil combination unit with a standard gas manifold included on oil burners.

## The K series. A versatile, *reliable* burner for your boiler room needs.



### Unique Air Damper

Multi blade configuration offers precise control of combustion air flow throughout the entire firing range. The unique profile of the damper blades restricts air flow at low firing ranges leading to increased air/fuel control.

### Efficient Gas Combustion

Gas is introduced through orifices ahead of the diffuser providing superior mixing of gas and air with excellent flame retention at all firing rates. The gas manifold is standard on all oil burners for future gas firing.

### Parallel Positioning Option

The use of parallel positioning systems eliminates the need for linkage and reduces setup time. Better control throughout the firing range is also achieved with the use of a parallel positioning system, thus increasing burner efficiency.

### Combustion Air Impeller

Highly efficient backward-curved aluminum impeller with the ability to maintain it's original balance by avoiding dust collection often seen with forward curved blowers.

### Cam Trim

Cam trim is an optional 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.

### 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 K Burner Explained:

The K series burner offers: natural gas, propane gas, pressure atomized #2 fuel oil and combination gas and oil fuel options from 1.25 to 14.65 MM BTU per hour. The K series forced draft design maintains clean and efficient combustion. Parallel positioning is an available feature which eliminates the need for linkage and reduces setup time and allows for better control through the firing range.

## K Burner

**Optional Cam Trim** 14-point adjustment range

**Parallel Positioning** available for optimal control throughout the firing range

**Multi Blade Air Damper** offers precise control of combustion air flow throughout firing range

**Gas Manifold** on oil burners standard for easy upgrade to combination units

**Combustion Air Impeller** provides adequate combustion air for various furnace pressures and high altitude applications

**No. 2 Oil** capability for back-up fuel

**Panel Mount Options** includes top or rear mount flexibility

**Inverted Configuration** available in lieu of standard configuration to meet space requirements

**UL & cUL** listed



Emissions	Frame	Model Range	Boiler HP	Capacities		Mode of Operation	Fuel
				MBH	GPH		
Uncontrolled	Size 1	13 - 25	30 - 60	1,250 - 2,500	8.9 - 17.9	Low-High-Off	Gas, Oil, Comb.
Uncontrolled	Size 2	30 - 42	70 - 100	2,930 - 4,185	20.9 - 29.9	Low-High-Off	Gas, Oil, Comb.
Uncontrolled	Size 3	54 - 84	125 - 200	5,231 - 8,370	37.4 - 59.8	Full Modulation	Gas, Oil, Comb.
Uncontrolled	Size 4	105 - 145	250 - 350	10,460 - 14,650	74.7 - 105.0	Full Modulation	Gas, Oil, Comb.

## Uncontrolled Emissions Configuration (KL, KG, KLG)

Burner Model Number & Frame Size	13-1	17-1	21-1	25-1	30-2	34-2	42-2	54-3	63-3	84-3	105-4	125-4	145-4
Gas Input (MBtu/hr)	1,250	1,750	2,093	2,510	2,930	3,348	4,185	5,231	6,278	8,370	10,460	12,560	14,650
Oil Input (US gph)	8.9	12.5	14.9	17.9	20.9	23.9	29.9	37.4	44.8	59.8	74.7	89.7	105.0
Boiler HP @ 80% Eff.	30	40	50	60	70	80	100	125	150	200	250	300	350
Blower Motor HP <sup>1</sup>	1/2	1/2	3/4	3/4	3/4	1	2	2	3	5	5	7 1/2	10
Blower Motor HP <sup>2</sup>	1/2	1/2	3/4	3/4	3/4	1	2	-	-	-	-	-	-
Remote Oil Pump Motor HP <sup>3</sup>	1/3	1/3	1/3	1/3	1/3	1/2	1/2	3/4	3/4	1	1 1/2	1 1/2	1 1/2
Furnace Pressure ("w.c.)	0.75	0.75	0.75	0.75	1.5	1.5	1.5	3.0	3.0	3.0	4.0	4.0	4.0
Standard Gas Train Pipe Size (in.)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2	2 1/2	3	3	3
Minimum Gas Pressure ("w.c.)	3.9	6.6	10.1	14.3	13.1	16.9	12.9	12.5	17.1	19.1	19.8	31.6	42.2
Shipping Weight (lbs.)	450	450	450	500	500	600	600	700	700	1,100	1,100	1,100	1,100

<sup>1</sup> Motor ratings for gas only or gas/oil burners using a remote oil pump

<sup>2</sup> Motor ratings for gas/oil burners using a direct drive oil pump

<sup>3</sup> Remote oil pump is optional for frame size 1 and 2 but standard for frame size 3 and 4. All pump motors are 115/230/1

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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