

TYPE ULTRA CMAX

GAS or LIGHT OIL:
8,400,000 – 25,200,000 BTU/HR

Power Flame's Versatile High Capacity Ultra Low NOx Gas / Oil Burner

Premix Firing Head

Produces optimum fuel-air mixture within the primary combustion zone and minimizes blower motor horsepower



Linkageless Controls

State-of-the-art electronic controls accurately maintain fuel air ratios throughout the firing range for optimum performance. Standard on all burner sizes.

The Power Flame Ultra CMAX burner offers state-of-the-art technology for minimal NOx emissions (on natural gas sub 9 PPM standard – sub 5 PPM available), maximum combustion efficiency and operating performance when firing all types of gaseous fuels and light oils. Designed specifically for today's boilers, the Ultra CMAX burner utilizes an advanced firing head that combines fuel staging and premixing to provide stable

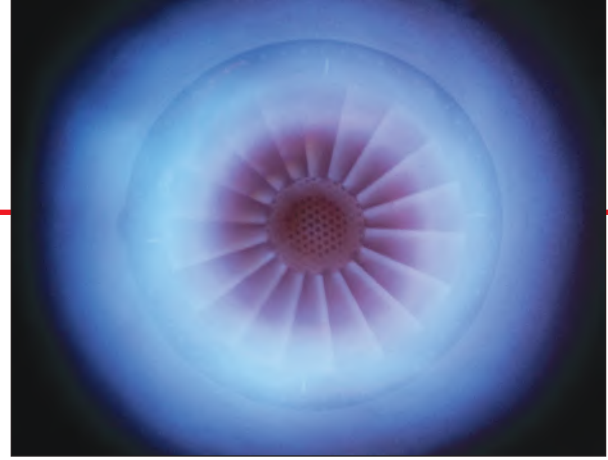
combustion over a wide turndown range (4:1 on gas and oil).

Moderate amounts of induced flue gas recirculation provide minimal emissions on gaseous and liquid fuels. The easy access door on the burner blast tube allows maintenance of the firing head components and facilitates a quick changeover from gas to oil firing without disturbing the fuel piping or electrical connections. The bottom-entry, centrally located gas manifold connection facilitates left or right hand configurations.

The modular concept that is the basis for all Power Flame burners produces added flexibility for a wide range of optional features. All packaged combustion systems are factory fire-tested to ensure cost effective installation and start-up.

Optional

Nema 4 control panel and touchscreen display with custom graphics.



STANDARD EQUIPMENT

- 3450 RPM Motor, backward inclined blower wheel, for reduced blower motor horsepower
- Control panel with Alpha System™ LED Indicators (Power, Demand, Main Fuel, FSG Alarm & Customer Selectable) and control switch.
- Gas electric pilot and ignition transformer
- Combustion air flow safety switch
- Linkageless modulating controls with integral flame safeguard
- Manual/Auto switch & manual potentiometer
- IFGR for low NOx operation

AIR ATOMIZED OIL BURNER

- Nozzle assembly with oil and atomizing air trains
- Air compressor
- Remote pump assembly
- IR scanner
- Dual oil safety shut-off valves

Unique firing head produces stable combustion and ultra low NOx when firing natural gas.

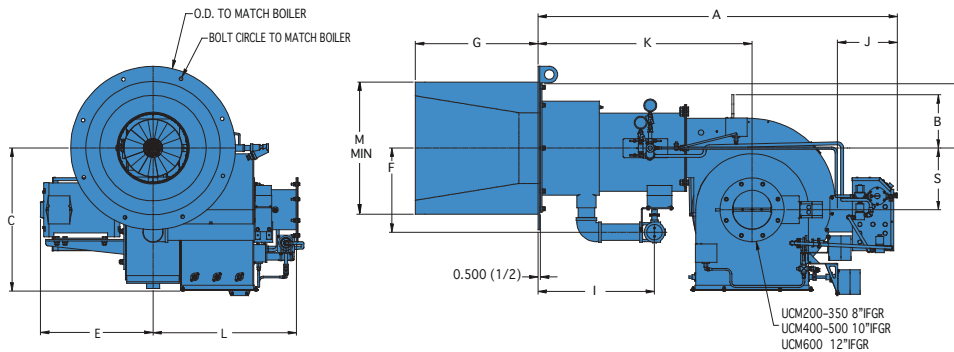
GAS BURNER

- Pressure regulators, pilot and main gas cocks
- Adjustable gas premix firing head
- UV scanner
- High & low gas pressure switches
- Dual gas safety shut-off valves

OPTIONAL FEATURES

- Director™ graphic annunciator
- Touch screen display with custom graphics

MODEL UCM (Forced Draft Burner)



DIMENSIONS (Inches) Standard Models

RATINGS & SPECIFICATIONS

Burner Model	A	B	C	D	E	F	G	I	J	K	L	MIN. M	S	CAPACITY*			BLOWER MOTOR H.P.	GAS** PRESS. REQ'D (PSIG)
														# 2 OIL GPH MAX.	NAT. GAS MBH MAX.	NOMINAL BOILER H.P. MAX.		
UCM200-G(O)-30	70 ⁷ / ₈	10 ⁵ / ₈	26 ⁷ / ₈	11 ³ / ₄	19 ¹ / ₂	15 ⁷ / ₈	20 ¹ / ₈	24 ¹ / ₂	12 ³ / ₄	42 ³ / ₄	26 ⁹ / ₁₆	22 ¹ / ₂	11 ⁹ / ₁₆	60	8,400	200	7.5	5.0
UCM250-G(O)-30	70 ⁷ / ₈	10 ⁵ / ₈	26 ⁷ / ₈	12 ¹ / ₄	19 ³ / ₁₆	16 ¹ / ₂	21 ⁵ / ₈	24 ¹ / ₂	12 ³ / ₄	42 ³ / ₄	26 ⁹ / ₁₆	24	11 ⁹ / ₁₆	75	10,500	250	10.0	5.0
UCM300-G(O)-30	75 ¹ / ₂	11 ⁵ / ₁₆	30 ⁵ / ₁₆	13	18 ¹³ / ₁₆	17 ¹ / ₈	23 ⁷ / ₈	24 ¹ / ₂	12 ³ / ₄	45	30 ³ / ₁₆	26 ¹ / ₄	13	90	12,600	300	15.0	5.0
UCM350-G(O)-30	75 ¹ / ₂	11 ⁵ / ₁₆	30 ⁵ / ₁₆	13 ⁵ / ₈	23 ¹¹ / ₁₆	17 ⁷ / ₈	25 ³ / ₄	24 ¹ / ₂	12 ³ / ₄	45	30 ³ / ₁₆	28	13	105	14,700	350	20.0	5.0
UCM400-G(O)-30	79 ¹ / ₂	12 ⁵ / ₈	34 ³ / ₁₆	14 ¹ / ₄	21 ³ / ₄	18 ⁵ / ₁₆	27 ⁵ / ₈	24 ¹ / ₂	12 ³ / ₄	46 ⁷ / ₈	32	30	15 ¹ / ₄	120	16,800	400	20.0	5.0
UCM500-G(O)-30	79 ¹ / ₂	12 ⁵ / ₈	34 ³ / ₁₆	16 ⁵ / ₈	22 ¹ / ₂	19 ¹ / ₄	29 ⁷ / ₈	24 ¹ / ₂	12 ³ / ₄	46 ⁷ / ₈	32	32 ¹ / ₄	15 ¹ / ₄	150	21,000	500	25.0	5.0
UCM600-G(O)-30	79 ¹ / ₂	12 ⁵ / ₈	34 ³ / ₁₆	17 ³ / ₈	25 ¹¹ / ₁₆	19 ⁷ / ₈	32 ¹ / ₈	24 ¹ / ₂	12 ³ / ₄	46 ⁷ / ₈	34	34 ¹ / ₂	15 ¹ / ₄	180	25,200	600	30.0	5.0

- NOTES:**
1. Dimensions can vary with optional equipment and system arrangements. Final piping connections should be determined after installation.
 2. PFI certified capacities listed are based on +3.00" w.c. combustion chamber pressure.
 3. Gas pressures listed are at the inlet to the main shutoff cock and required to obtain PFI certified rating with the standard UL gas train. Optional gas trains are available for lower pressures.
 4. Refractory throat provided by PFI.

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