MODEL CO FORCED DRAFT **BURNERS**

LIGHT OIL

3-136 GPH

Power Flame Type C



Mounting Flange Flexibility Easily adapted to varying firing head insertion depths

Circular Furnace Opening No special cutting of combustion chamber front plate

The Power Flame Model CO oil burner presents optimum state-ofthe-art design for maximum combustion efficiency and operating dependability. These packaged combustion systems will fire a wide range of liquid fuels within the #2 fuel oil viscosity range. The flame retention firing head incorporates a single nozzle pressure atomizing oil assembly and unique air distribution design to produce full range stable performance in both positive and negative combustion chambers. Operating system adjustments have been minimized

to provide troublefree start up and operating performance.

The Model CO produces efficient combustion without the aid of refractory or other costly flame support devices. The integrally mounted, high velocity air fan produces high turbulence in the flame propagation zone and the resultant compact flame expands application within limited size combustion chamber configurations. Modular design produces added flexibility for a wide range of optional features. All Power Flame packaged combustion systems are factory fire-tested to ensure cost effective installation and start up.

Alpha System[™]

LED indicators, switches and operator annunciator. (Optional additional 6-light board shown on right.)

Characterized Fuel Metering Varicam[®] provides adjustable and accurately repeatable fuel-air ratios throughout the firing range*

Total Access Panel

*Optional

Swing out, easily removable top and front panels give total access to all internal panelmounted components

> Graphic Burner Management System Director[®] graphic annunciation of critical burner functions*



CO-1090 Rev. 305



STANDARD EQUIPMENT

- 3450 RPM Motor, squirrel cage blower, oil valves, nozzle assembly, direct spark ignition* ■ Alpha System[™] LED indicator (power, demand, main fuel,
- FSG alarm, selectable) and control switch**



Alternate COS configuration incorporates simplified control package with Cadmium Sulfide sensing system.

Α

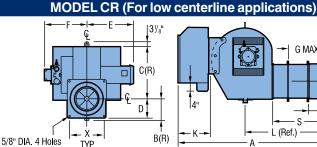
Add 3/8" to "H" for size of opening in boiler front plate **RATINGS & SPECIFICATIONS**

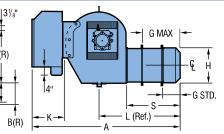
Pressure

4"

ADDED FEATURES	C1-0S	C2-OBS	C1-0	C2-0B	C3-0	C4-0A	C4-OB	C6-0	C7-0	
X-Standard O-Optional NA-Not Available	C2-OAS	A	C2-0A		C3-0B		C5-O(B)		C8-0	
Flame Safeguard with cadmium sulfide cell	Х	X	Х	(A) X	NA	NA	NA	NA	NA	
Flame Safeguard with UV and prepurge	NA	NA	0	(A) O	NA	NA	NA	NA	NA	
Flame Safeguard with UV, prepurge and postpurge	NA	NA	Ο	BO	Х	Х	X	Х	Х	
On-Off with fixed air control - manual adjustment	X	NA	X	NA	NA	NA	NA	NA	NA	
Low-High-Off or Low-High-Low with automatic air control	0	X	0	Х	Х	Х	NA	NA	NA	
Modulation with automatic air control	NA	NA	Ο	Ο	Ο	0	X	Х	Х	
Integral 2-stage fuel unit, C1-0(S), C2-OB(S) single stage	Х	Х	Х	Х	Х	Х	NA	NA	NA	
Remote mounted 2-stage fuel unit (single stage for C6-C8) \bigcirc	NA	NA	0	0	0	0	Х	Х	Х	
Dual oil safety valves	Х	Х	Х	Х	Х	Х	Х	Х	Х	
Customized control systems and accessories	NA	NA	0	0	0	0	0	0	0	
Man/Auto switch - manual potentiometer - modulation units	NA	NA	Х	X	Х	Х	Х	Х	Х	
 Gas pilot ignition furnished as standard on C4-OB, C5-O(B), C6-O, C7-O, C8-O * Not furnished on C1-OS, C2-OAS, C2-OBS 	(A) 20 GPH	l or less	B Stan Stan	dard above	20 GPH	© Additional UL code features required				

Not furnished on C1-OS, C2-OAS, C2-OBS





Add 3/8" to "H" for size of opening in boiler front plate

DIMENSIONS (Inches) Standard Models

Dimensions vary with mode of operation. Maximum dimensions are shown. For COS burner, deduct 6" from "A" dimension. "A" dimension may be reduced by $10^{1/4}$ " by NOTE:

	moving panel to appropriate alternate location.														#2 0il	Nominal	Blower Motor	Pump Suction			
Burner Model	A	В	B(R)	C	C(R)	D	E	F	G Std.	G Max.*	G CAD	н	к	L	S	x	GPH Max.	Boiler H.P. Max.	H.P. (3450 RPM)	Capacity (GPH)	
C1-0(S)	34 ¹ / ₈	3 ¹³ / ₁₆	5 %16	14 ¹ / ₂	14 ¹ / ₂	4 ⁵ / ₈	12 ¹ / ₄	12 ³ / ₄	3 1/4	4 ³ / ₄	11	7 ¹ / ₄	10 ¹ / ₄	17 1/8	12 ⁵ /8	7 1/ ₄	9.7	32.3	1/3	⁺⁺ 19	
C2-0A(S)	39 ¹ / ₈	4 ¹ / ₂	6 ¹ / ₈	14 7/ ₈	14	5 ¹ /4	14	13	4	6 ³ / ₄	11 ¹ / ₂	8 ³ / ₄	10 ¹ / ₄	18 7/8	13 ³/ ₈	8 1/2	15.7	52.3	3/4	†† 70	
C2-0B(S)	39 ¹ / ₈	4 ¹ / ₂	6 ¹ / ₈	141/8	14	5 ¹ /4	14	13	4	6 ³ / ₄	11 ¹ / ₂	8 ³ / ₄	10 ¹ / ₄	18 7/8	13 ³/ ₈	8 1/2	22.0	73.5	1 ½	70	
C3-0	44	51/4	7	165/8	15 ¹ / ₄	6	16	14 ¹ / ₄	4 ¹ / ₂	8	-	10 1/8	10 ¹ / ₄	22	15 ¹ / ₂	10	33.7	112.0	2	105	
C3-0B	44	5 ¹ / ₄	7	165/8	15 ¹ / ₄	6	16	14 ¹ / ₄	4 ¹ / ₂	8	-	10 1/8	10 ¹ / ₄	22	15 ½	10	37.5	125.0	3	135	
C4-0A	50	6 ¹ / ₄	7 5/ ₁₆	18 7/8	17 ¹¹ / ₁₆	7	18 ¹ / ₂	18	6	9	-	12 ¹ / ₈	10 ¹ / ₄	26 ⁵ / ₈	19 1/ ₈	12	45.0	150.0	5	135	
C4-0B	50	6 ¹ / ₄	7 5/ ₁₆	18 7/8	17 ¹¹ / ₁₆	7	18 ¹ / ₂	18	6	9	-	12 ¹ / ₈	10 ¹ / ₄	26 ⁵ / ₈	19 1/ ₈	12	56.0	190.0	5	† 135	
C5-0 C5-0B	50	6 ¹ / ₄	7 5/ ₁₆	187/8	17 ¹¹ / ₁₆	7	18 ¹ / ₂	18	6	9	-	12 ¹ /8	10 ¹ / ₄	26 ⁵ / ₈	19 1/ ₈	12	75.0	250.0	7 ½	† 250	
C6-0	49 ⁷ / ₈	6 ¹ / ₄	7 5/ ₁₆	18 ⁷ / ₈	17 ¹¹ / ₁₆	7 ³/4	19 7/ ₈	18	5	11 ³ / ₄	-	13 ⁵ /8	10 ¹ / ₄	26 ¹ / ₂	19	13 ¹ / ₂	101.5	340.0	10	† 250	
C7-0	51 ¹¹ / ₁₆	8 ¹ / ₈	10 ¹ / ₈	24 5/ ₁₆	22 ³ / ₈	8 ³ / ₄	18	18	4 ⁷ / ₈	11 ¹ / ₄	-	15 ⁵ /8	9 1/8	26 ¹ / ₂	19	13 ¹ / ₂	121.4	404.0	15	235	
C7-0B	51 ¹¹ / ₁₆	8 ¹ / ₈	10 ¹ / ₈	24 5⁄16	22 ³ / ₈	8 ³ / ₄	18	18	4 ⁷ / ₈	11 ¹ / ₄	-	15 ⁵ /8	9 1/8	26 ¹ / ₂	19	13 ¹ / ₂	126.4	421.0	20	235	
C8-0	56 %/16	8 ¹ / ₈	10 ¹ / ₈	27 1/8	27 ⁵ / ₈	8 ³ / ₄	20	18	3 ¹ / ₄	9 5/8	-	155/8	9 1/8	24 ⁷ / ₈	17 ⁵ / ₁₆	13 ¹ / ₂	136.4	454.0	15	235	



Power Flame Incorporated

2001 South 21st Street Phone 620-421-0480 Parsons, KS 67357 Fax 620-421-0948 Web Site: http://www.powerflame.com E-Mail: csd@powerflame.com Copyright © Power Flame Incorporated 2004 Printed in U.S.A. Capacities listed are based on 0.20" W.C. positive pressure, except for C5-0B, which is rated for 250 BPH at +1.2" W.C. Derate capacities approximately 5% for each +0.50" W.C. combustion chamber pressure. For C7/C8 derate see capacity curves. C1-O(S) requires optional 1/2 HP motor for 9.7 GPH rate.

† Remote Pump Set with 200 (208) or 230/460/3/60 motor, 3450 RPM - 3/4 HP - C4; 1750 RPM - 1 HP - C5, C6; 1750 RPM 1¹/₂ HP - C7, C8.

†† For On-Off and modulating firing modes only. Refer to C Manual for capacities on other modes. *

This dimension may be increased. Consult factory.

MODEL C 5/8"DIA 4 Holes TYP. ŧп С



G STD.→

S G MAX

- L (Ref.)