

TYPE C

GAS or LIGHT OIL
98,000 – 19,100,000 BTU/HR

Power Flame's Versatile High Performance Gas and Oil Burner

Adjustable Premix Firing Head

Produces optimum fuel-air mixture within the premix combustion zone



Linkageless System

for precise air/fuel ratio control (optional)

Redesigned Air Inlet

for improved air flow control, higher turndown and quieter operation

The Power Flame Type C gas, oil or combination gas/oil burner presents optimum state-of-the-art design for maximum combustion efficiency and operating dependability. These packaged combustion systems will fire natural gas, light oil, and other gaseous fuels. **The burner features a 10 to 1 turndown when firing natural gas.**

The flame retention firing head incorporates the nozzle mix multipoint combustor and unique air sandwich design to produce full range stable performance in both

positive or negative combustion chamber environments. Operating system adjustments have been minimized to provide trouble free start up and operating performance.

The Model CG produces efficient combustion without the aid of refractory or other costly flame support devices adding 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.

Total Access Panel

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

Alpha System™

LED indicators, switches and operator annunciator



CALL US:
VISIT:
EMAIL:

620-421-0480
WWW.POWERFLAME.COM
CSD@POWERFLAME.COM

POWER FLAME INCORPORATED
2001 S. 21ST ST. PARSONS, KS 67357
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STANDARD EQUIPMENT

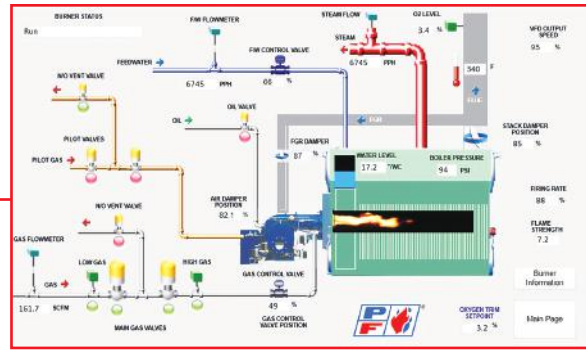
- Alpha System™ LED indicators (power, demand, main fuel, FSG alarm, customer selectable) & control switch
- Pressure regulators, pilot and main gas cocks
- Oil valve, nozzle assembly, manual fuel selector switch
- Air safety switch & leakage test cock
- Gas electric pilot and gas ignition transformer

ADDED FEATURES

X-Standard O-Optional NA-Not Available

- Flame Safeguard with UV and prepurge with interrupted pilot
- On-Off diaphragm gas valve with fixed air control manual adjustment
- Low-Hi-Off motorized gas valve with automatic air control
- Low-Hi-Low motorized gas valve with automatic air control
- Modulation with automatic air control
- Integral 2 stage fuel unit (C1, C2 single stage)
- Remote mounted 2 stage fuel unit (single stage for C6-C8)
- Dual gas^(B) and dual oil safety valves
- High and Low gas pressure switches
- Direct spark ignition (oil)
- Low fire oil start with automatic air control
- Man/Auto switch - manual potentiometer - modulation only

- (A) Postpurge standard on C2-GO-20B and all C3 to C8 models
- Conforms to UL 296 and UL 795

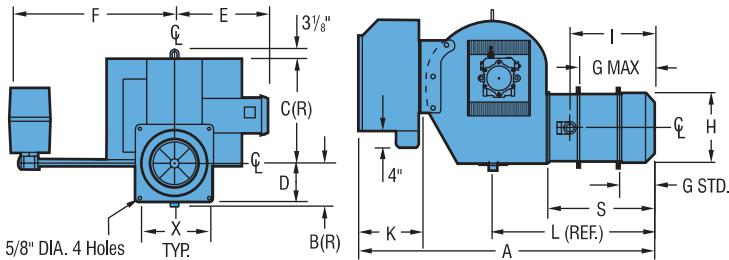


The optional Director SCS provides PLC control for optimum boiler/burner performance

C1-GO-10 C1-GO-12 C2-GO-15	C2-GO-20A	C2-GO-20B	C3-GO-20 C3-GO-25 C3-GO-25B	C4-GO-25	C4-GO-30 C5-GO-30(B) C6-GO-30	C7-GO-30 C8-GO-30
X	X	(A)X	(A)X	(A)X	(A)X	(A)X
X	NA	NA	NA	NA	NA	NA
O	X	X	X	X	NA	NA
O	O	O	O	O	NA	NA
O	O	O	O	O	X	X
X	X	X	X	X	NA	NA
O	O	O	O	O	X	X
X	X	X	X	X	X	X
O	O	X	X	X	X	X
O	O	O	O	O	O	O
O	X	X	X	X	X	X
X	X	X	X	X	X	X

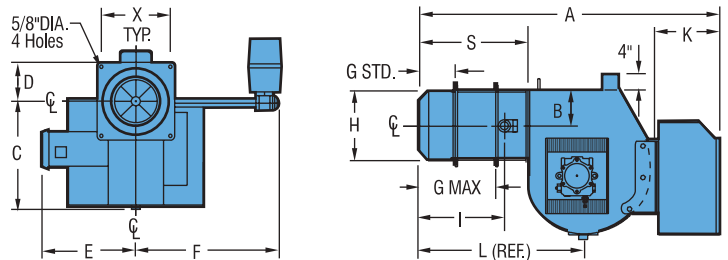
- (B) 5,000 MBH and below may be replaced by one (1) proof of closure valve; above 5,000 MBH one (1) of the safety valves will include proof of closure feature.

MODEL CR (For low centerline applications)



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

MODEL C



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

DIMENSIONS (Inches) Standard Models.

- * This dimension may be increased. Consult factory.
- ** This dimension depicts space required to accommodate a standard gas train.

Burner Model	CAPACITY ¹																Blower Motor H.P. (3450 RPM)	Std. Gas Train (In.)	Pressure Pump Suction (GPH)	Gas Pressure Required (In. W.C.) ²			
	A	B	B(R)	C	C(R)	D	E	F**	G Std.	G *Max.	H	I	K	L	S	X					#2 Oil GPH Max.	Natural Gas/MBH Max.	Nominal Boiler H.P. Max.
C1-GO-10	34 ¹ / ₈	3 ¹³ / ₁₆	5 ⁹ / ₁₆	14 ¹ / ₂	14 ¹ / ₂	4 ⁵ / ₈	12 ¹ / ₄	20	3 ¹ / ₄	4 ³ / ₄	7 ¹ / ₄	7 ³ / ₈	10 ¹ / ₄	17 ¹ / ₈	12 ⁵ / ₈	7 ¹ / ₄	7.0	980	23.5	1/3	1	†19	5.6
C1-GO-12	34 ¹ / ₈	3 ¹³ / ₁₆	5 ⁹ / ₁₆	14 ¹ / ₂	14 ¹ / ₂	4 ⁵ / ₈	12 ¹ / ₄	20	3 ¹ / ₄	4 ³ / ₄	7 ¹ / ₄	7 ³ / ₈	10 ¹ / ₄	17 ¹ / ₈	12 ⁵ / ₈	7 ¹ / ₄	9.7	1,360	32.3	1/2	1 ¹ / ₄	†19	5.3
C2-GO-15	39 ¹ / ₈	4 ¹ / ₂	6 ¹ / ₈	14 ⁷ / ₈	14	5 ¹ / ₄	14	20	4	6 ³ / ₄	8 ³ / ₄	8 ¹ / ₂	10 ¹ / ₄	18 ⁷ / ₈	13 ³ / ₈	8 ¹ / ₂	15.7	2,200	52.3	3/4	1 ¹ / ₂	†70	5.2
C2-GO-20A	39 ¹ / ₈	4 ¹ / ₂	6 ¹ / ₈	14 ⁷ / ₈	14	5 ¹ / ₄	14	20	4	6 ³ / ₄	8 ³ / ₄	8 ¹ / ₂	10 ¹ / ₄	18 ⁷ / ₈	13 ³ / ₈	8 ¹ / ₂	17.5	2,500	60.0	1	2	70	4.8
C2-GO-20B	39 ¹ / ₈	4 ¹ / ₂	6 ¹ / ₈	14 ⁷ / ₈	14	5 ¹ / ₄	14	20	4	6 ³ / ₄	8 ³ / ₄	8 ¹ / ₂	10 ¹ / ₄	18 ⁷ / ₈	13 ³ / ₈	8 ¹ / ₂	22.0	3,080	73.5	1 ¹ / ₂	2	70	4.8
C3-GO-20	44	5 ¹ / ₄	7	16 ⁵ / ₈	15 ¹ / ₄	6	16	22 ³ / ₈	4 ¹ / ₂	8	10 ¹ / ₈	11 ¹ / ₂	10 ¹ / ₄	22	15 ¹ / ₂	10	30.0	4,200	100.0	2	2	105	7.6
C3-GO-25	44	5 ¹ / ₄	7	16 ⁵ / ₈	15 ¹ / ₄	6	16	22 ³ / ₈	4 ¹ / ₂	8	10 ¹ / ₈	11 ¹ / ₂	10 ¹ / ₄	22	15 ¹ / ₂	10	33.7	4,718	112.0	2	2 ¹ / ₂	105	7.0
C3-GO-25B	44	5 ¹ / ₄	7	16 ⁵ / ₈	15 ¹ / ₄	6	16	22 ³ / ₈	4 ¹ / ₂	8	10 ¹ / ₈	11 ¹ / ₂	10 ¹ / ₄	22	15 ¹ / ₂	10	37.5	5,250	125.0	3	2 ¹ / ₂	135	7.2
C4-GO-25	50	6 ¹ / ₄	7 ⁵ / ₁₆	18 ⁷ / ₈	17 ¹¹ / ₁₆	7	18 ¹ / ₂	28	6	9	12 ¹ / ₈	14 ¹ / ₄	10 ¹ / ₄	26 ⁵ / ₈	19 ¹ / ₈	12	45.0	6,300	150.0	5	2 ¹ / ₂	135	8.0
C4-GO-30	50	6 ¹ / ₄	7 ⁵ / ₁₆	18 ⁷ / ₈	17 ¹¹ / ₁₆	7	18 ¹ / ₂	28	6	9	12 ¹ / ₈	14 ¹ / ₄	10 ¹ / ₄	26 ⁵ / ₈	19 ¹ / ₈	12	56.0	7,840	190.0	5	3	†135	12.1
C5-GO-30(B)	50	6 ¹ / ₄	7 ⁵ / ₁₆	18 ⁷ / ₈	17 ¹¹ / ₁₆	7	18 ¹ / ₂	26 ¹ / ₂	6	9	12 ¹ / ₈	14 ¹ / ₄	10 ¹ / ₄	26 ⁵ / ₈	19 ¹ / ₈	12	75.0	10,500	250.0	7 ¹ / ₂	3	†250	19.9, 17.8
C6-GO-30	49 ⁷ / ₈	6 ¹ / ₄	7 ⁵ / ₁₆	18 ⁷ / ₈	17 ¹¹ / ₁₆	7 ³ / ₄	19 ⁷ / ₈	26 ¹ / ₂	5	11 ³ / ₄	13 ⁵ / ₈	14 ¹ / ₈	10 ¹ / ₄	26 ¹ / ₂	19	13 ¹ / ₂	101.5	14,215	340.0	10	3	†250	26.5
C7-GO-30	51 ¹¹ / ₁₆	8 ¹ / ₈	10 ¹ / ₈	24 ⁵ / ₁₆	22 ³ / ₈	8 ³ / ₄	18	21 ¹³ / ₁₆	4 ⁷ / ₈	11 ¹ / ₄	15 ⁵ / ₈	13 ³ / ₈	9 ¹ / ₈	26 ¹ / ₂	19	13 ¹ / ₂	121.4	17,000	404.0	15	3	235	40.0
C7-GO-30B	51 ¹¹ / ₁₆	8 ¹ / ₈	10 ¹ / ₈	24 ⁵ / ₁₆	22 ³ / ₈	8 ³ / ₄	18	21 ¹³ / ₁₆	4 ⁷ / ₈	11 ¹ / ₄	15 ⁵ / ₈	13 ³ / ₈	9 ¹ / ₈	26 ¹ / ₂	19	13 ¹ / ₂	126.4	17,700	421.0	20	3	235	45.0
C8-GO-30	56 ⁹ / ₁₆	8 ¹ / ₈	10 ¹ / ₈	27 ¹ / ₈	27 ⁵ / ₈	8 ³ / ₄	20	24 ³ / ₈	3 ¹ / ₄	9 ⁵ / ₈	15 ⁵ / ₈	12 ¹ / ₄	9 ¹ / ₈	24 ⁷ / ₈	17 ⁵ / ₁₆	13 ¹ / ₂	136.4	19,100	454.0	15	3	235	50.0

- NOTES: 1. Capacities listed are based on 0.20" W.C. positive pressure, except for C5-GO-30B, which is rated for 250 BHP at +1.2" W.C. Refer to capacity curves for derates based upon combustion chamber pressure.
 2. At inlet to main manual shutoff cock to obtain P/F certified ratings with standard U.L. gas train. Optional gas trains and combustion heads available for lower pressures.
 † 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 - 1-1/2 HP - C7, C8.
 †† For On-Off and modulating firing modes only. Refer to C Manual for capacities on other modes.

CALL US: 620-421-0480
 VISIT: WWW.POWERFLAME.COM
 EMAIL: CSD@POWERFLAME.COM

POWER FLAME INCORPORATED
 2001 S. 21ST ST. PARSONS, KS 67357
 FOLLOW US:

