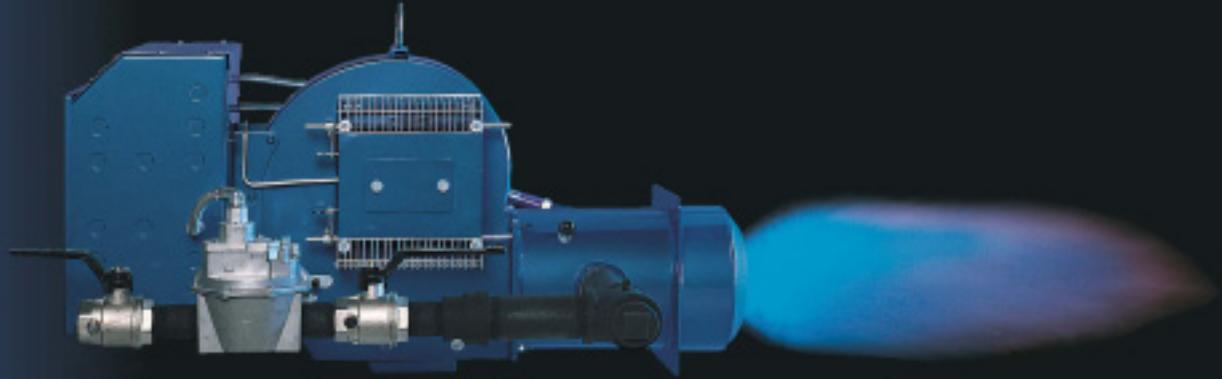


MODEL CG
MODEL CG HTD
FORCED DRAFT
BURNERS

GAS

98,000 -
19,100,000
BTU/HR.

Power Flame® Type C



Power Flame's Versatile High Performance Gas Burner

Adjustable Premix Firing Head
Produces optimum fuel-air
mixture within the premix
combustion zone*

Circular Furnace Opening
No special cutting of combustion
chamber front plate

**Low Gas Pressure
Firing Head**
Added flexibility of
application for low gas
pressure conditions*

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

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

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

The Power Flame Model CG gas burner presents optimum state-of-the-art design for maximum combustion efficiency and operating dependability. These packaged combustion systems will fire natural gas and a full range of waste or other gaseous fuels. The Model CG HTD (High Turndown) will fire natural gas at turndowns up to 10 to 1. The flame retention firing head incorporates the nozzle mix multiport 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. Optional features include the premix and low gas pressure firing heads for limited size combustion chamber configurations or low gas pressure conditions. 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.)

*Optional



CG-1090 Rpt. 1211

Power Flame

The Power to Manage Energy

Optional NOVA®
Low NOx systems:
Induced Flue Gas
Recirculation shown.



STANDARD EQUIPMENT

- Alpha System™ LED (power, demand, main fuel, FSG alarm, selectable) and control switch
- Gas electric pilot and gas ignition transformer
- Leakage test cock, pilot cock and main gas cock
- Pilot and main gas pressure regulators
- Air safety switch

ADDED FEATURES

X-Standard O-Optional NA-Not Available

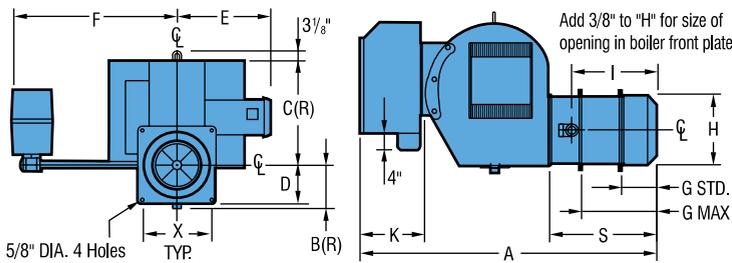
Flame Safeguard with UV and intermittent pilot	X	X	NA	NA	NA	NA
Flame Safeguard with UV and interrupted pilot	O	O	X	X	X	X
On-Off diaphragm gas valve with fixed air control manual adjustment	X	NA	NA	NA	NA	NA
Low-Hi-Off motorized gas valve with automatic air control	O	X	X	X	NA	NA
Low-Hi-Low motorized gas valve with automatic air control	O	O	O	O	NA	NA
Modulation with automatic air control (Standard on all CG HTD)	O	O	O	O	X	X
Dual gas safety valves (A)	X	X	X	X	X	X
High and Low gas pressure switches	O	O	X	X	X	X
Nova® Low NOx systems	O	O	O	O	O	O
Customized control systems and accessories	O	O	O	O	O	O
Man/Auto switch - manual potentiometer-modulation units	X	X	X	X	X	X

- Conforms to UL795

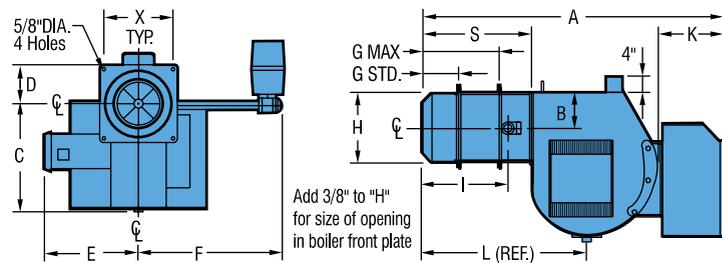
C1-G-10 C1-G-12 C2-G-15	C2-G-20A	C2-G-20B	C3-G-20 C3-G-25 C3-G-25B	C4-G-25	C4-G-30 C5-G-30(B) C6-G-30	C7-G-30 C8-G-30
X	X	NA	NA	NA	NA	NA
O	O	X	X	X	X	X
X	NA	NA	NA	NA	NA	NA
O	X	X	X	X	NA	NA
O	O	O	O	O	NA	NA
O	O	O	O	O	X	X
X	X	X	X	X	X	X
O	O	X	X	X	X	X
O	O	O	O	O	O	O
O	O	O	O	O	O	O
X	X	X	X	X	X	X

(A) 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)



MODEL C



DIMENSIONS (Inches) Standard Models.

RATINGS & SPECIFICATIONS

Burner Model	A	B	B(R)	C	C(R)	D	E	F**	G Std.	G *Max.	H	I	K	L	S	X	CAPACITY ¹				
																	Nat. Gas MBH Max.	Nominal Boiler H.P. Max.	Blower Motor H.P. (3450RPM)	Standard Gas Train Size(In.)	Gas Pressure Required (In. W.C.) ²
C1-G-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	980	23.5	1/3	1	5.6
C1-G-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	1,360	32.3	1/3	1 ¹ / ₄	5.3
C2-G-15	39 ⁷ / 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	2,200	52.3	1/2	1 ¹ / ₂	5.2
C2-G-20A	39 ⁷ / 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	2,500	60.0	3/4	2	4.8
C2-G-20B	39 ⁷ / 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	3,080	73.5	1	2	4.8
C3-G-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	4,200	100.0	1 ¹ / ₂	2	7.6
C3-G-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	4,718	112.0	1 ¹ / ₂	2 ¹ / ₂	7.0
C3-G-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	5,250	125.0	3	2 ¹ / ₂	7.2
C4-G-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	6,300	150.0	3	2 ¹ / ₂	10.0
C4-G-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	7,840	190.0	5	3	12.1
C5-G-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	10,500	250.0	7 ¹ / ₂	3	19.9,17.8
C6-G-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 ¹ / ₂	13 ³ / ₈	14 ¹ / ₈	10 ¹ / ₄	26 ¹ / ₂	19	13 ¹ / ₂	14,215	340.0	10	3	26.5
C7-G-30	51 ¹¹ / ₁₆	8 ¹ / ₈	10 ¹ / ₈	24 ⁹ / ₁₆	22 ³ / ₈	8 ³ / ₄	18	21 ¹³ / ₁₆	4 ⁷ / ₈	11 ¹ / ₄	15 ⁵ / ₈	13 ⁷ / ₈	9 ¹ / ₈	26 ¹ / ₂	19	13 ¹ / ₂	17,000	404.0	15	3	40.0
C7-G-30B	51 ¹¹ / ₁₆	8 ¹ / ₈	10 ¹ / ₈	24 ⁹ / ₁₆	22 ³ / ₈	8 ³ / ₄	18	21 ¹³ / ₁₆	4 ⁷ / ₈	11 ¹ / ₄	15 ⁵ / ₈	13 ⁷ / ₈	9 ¹ / ₈	26 ¹ / ₂	19	13 ¹ / ₂	17,700	421.0	20	3	45.0
C8-G-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	19,100	454.0	15	3	50.0



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1. Capacities listed are based on 0.20" W.C. positive pressure, except for C5-G-30B, which is rated 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.
- * This dimension may be increased. Consult factory.
** This dimension depicts space required to accommodate a standard gas train.

C Burner Typical Sound Levels

Burner	Sound Level Without Attenuator (dBA)	Sound Level With Attenuator (dBA)
C1-GO-10	78	74
C1-GO-12	79	75
C2-GO-15	83	78
C2-GO-20A	84	79
C2-GO-20B	86	80
C3-GO-20	87	81
C3-GO-25	87	82
C3-GO-25B	87	82
C4-GO-25	88	83
C4-GO-30	88	84
C5-GO-30	88	85
C5-GO-30B	89	85
C6-GO-30	90	86
C7-GO-30	97	Consult Factory
C8-GO-30	96	Consult Factory

Notes:

1. Sound levels will vary with installation and type of unit being fired
2. Values are expected levels, background noise is not included.

6/2/2003