JOHN ZINK
JOHN ZINK COMPANY LLC
Gordon-Piatt

# Model G
# Specification Data

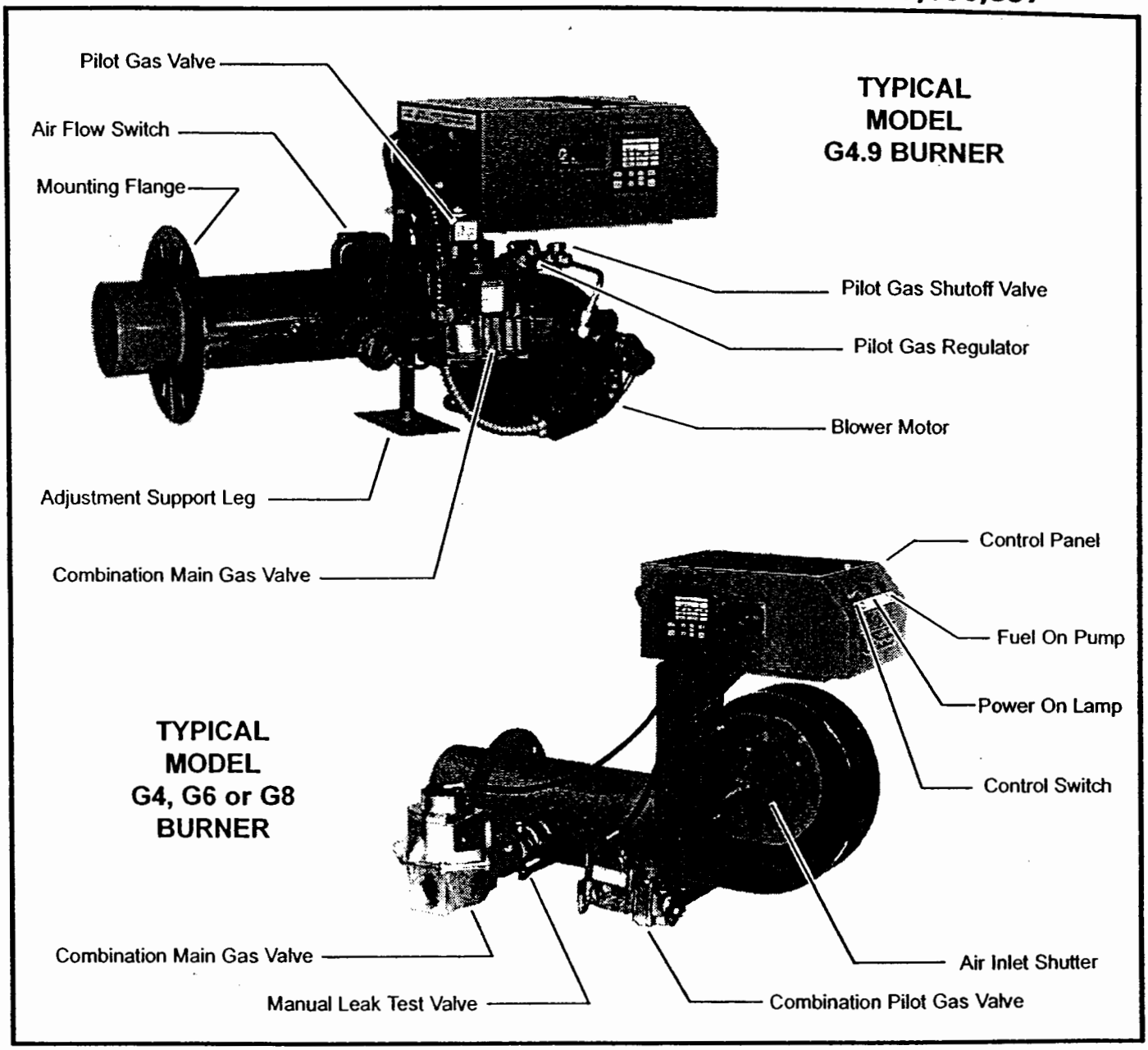
| 1 | G | 15.1 | Rev. 3 |
|---|---|---|---|
| 4-97 | Replaces | 3-95 | |

**Forced Draft Gas Burner**
**Using Natural or L. P. Gas**

■ ON - OFF

Underwriters Laboratories Inc.®

**PAT. NO. 5,090,897**




## Burner Numbering System

G 6 - G - 03 - S8660D - B.12

- Burner Type
- Burner Size
- Fuel (Gas)
- Blower Motor HP (1/3 HP)
- Flame Safeguard Module
- Gas Control System
- Gas Train Size (1-1/4" I.P.S.)

1 Use Order Entry and Equipment Pricing Form 1196 when placing order.

## Specifications and Capacities

| BURNER MODEL | MOTOR HP | DIFFUSER O.D. | FIRING RATE RANGE (MBH) [1] FIREBOX PRESSURE -.10 | 0 | +.25 | +.50 | +.75 | APPROX. SHIP WT. |
|---|---|---|---|---|---|---|---|---|
| G4.9 | 1/10 | 3-3/8<br>3-5/8<br>3-3/4 | 275-400<br>150-250<br>125-200 | 250-400<br>150-250<br>100-200 | 225-400<br>150-250<br>100-175 | - -<br>- -<br>- - | - -<br>- -<br>- - | 45 |
| G4 | 1/4 | 3-1/4 | 400-600 | 400-600 | 400-550 | 400-500 | - - | 60 |
| G6 | 1/3 | 5-13/16<br>5-9/16<br>5-5/16 | 550-650<br>700-900<br>850-1150 | 500-600<br>650-850<br>800-1100 | 500-550<br>650-800<br>800-1050 | 500-550<br>600-800<br>750-1000 | 490-500<br>600-750<br>700-950 | 90 |
| G8 | 1/3 | 7-1/2<br>7-7/16<br>6-3/4<br>6.0 | 1050-1350<br>1350-1700<br>1650-2300<br>1900-2500 | 1050-1350<br>1350-1650<br>1650-2250<br>1850-2500 | 1050-1300<br>1300-1550<br>1550-2200<br>1800-2500 | 1050-1250<br>1250-1500<br>1500-2100<br>1750-2500 | - -<br>1200-1450<br>1450-1950<br>1750-2500 | 110 |

- On-Off Operation
- Natural or L.P. Gas
- Flame Rectification
- 30 Second Prepurge
- Combustion Control/Ignition Module
- Intermittent Gas Pilot Ignition
- 115 Volt - 60 Hz - 1 Phase
- Maximum Inlet Gas Pressure is 14" wc
- U.L. Listed

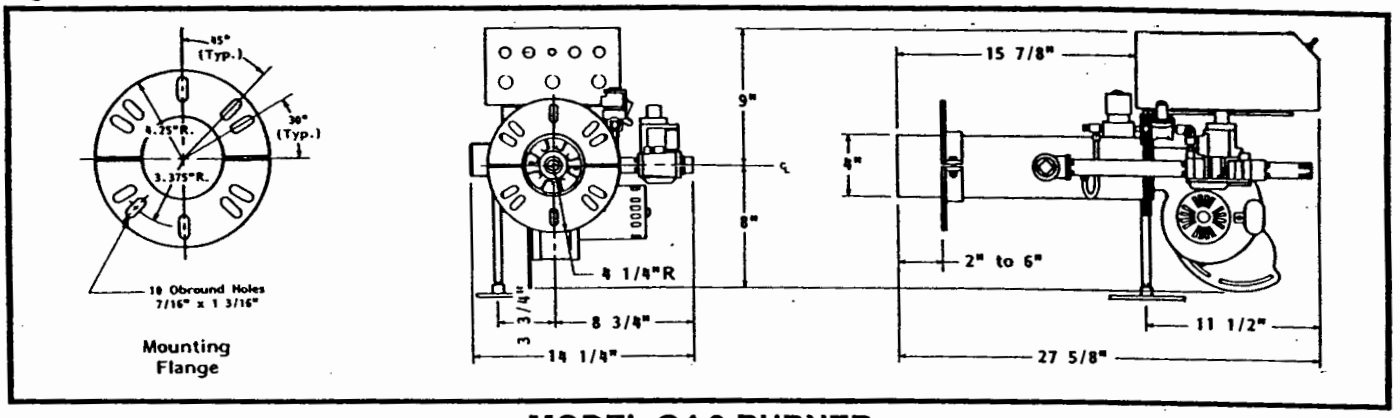
[1] Capacity based on higher heating value (HHV) of natural gas and at an elevation of 2000 ft. MSL. Capacity will be reduced 4% for each additional 1000 ft. of elevation.

## Standard Equipment

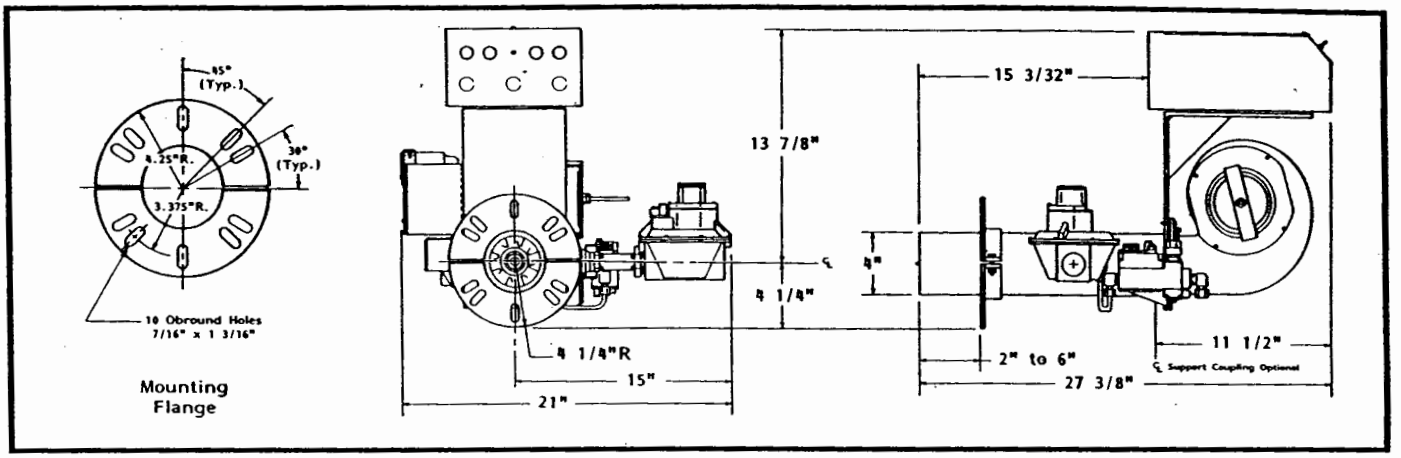
- Blower Motor and Blower Assembly
- Air Inlet Shutter
- Integral Motor Overload Protection
- Combustion Safety Control with Integral Pilot Ignition
- Internal Gas Pilot with Combination Ignition Electrode and Sensor
- Pilot Solenoid Valve
- Pilot Gas Pressure Regulator
- On-Off Control Switch
- Power On Light
- Main Fuel On Light
- 24 Volt Control Transformer
- Diaphragm Air Flow Switch
- Combination Gas Valve and Regulator
- Manual Leak Test Valve
- G4.9 Supplied with Redundant Gas Valve
- Second Automatic Safety Shutoff Valve - (G4 - G8)

## Optional Equipment

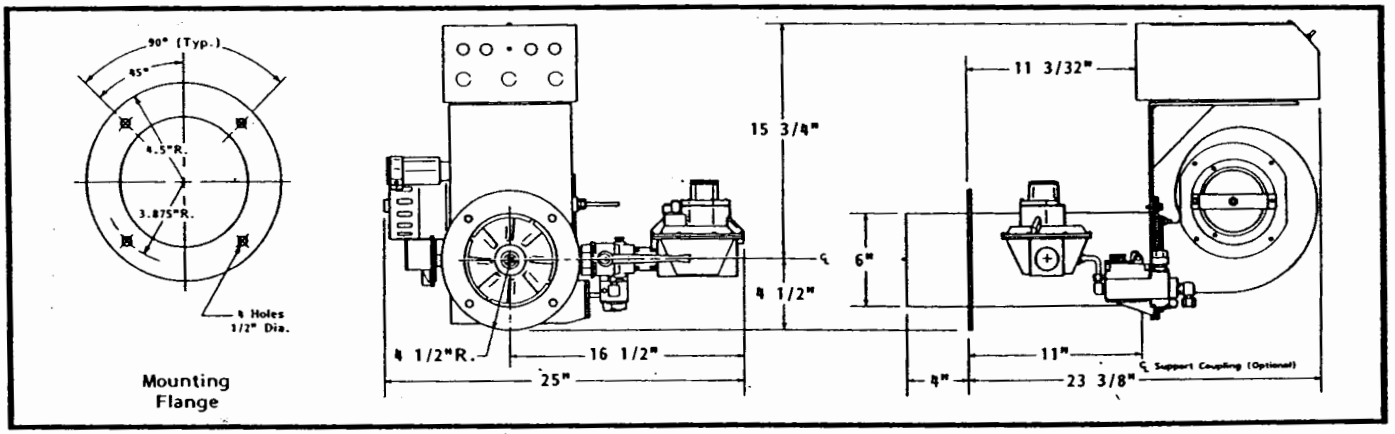
- Swing Away Housing - (G4 - G8 Only)
- Main Manual Shutoff Valve
- Diaphragm Safety Shutoff Valve with separate Gas Pressure Regulator - (G4 - G8)



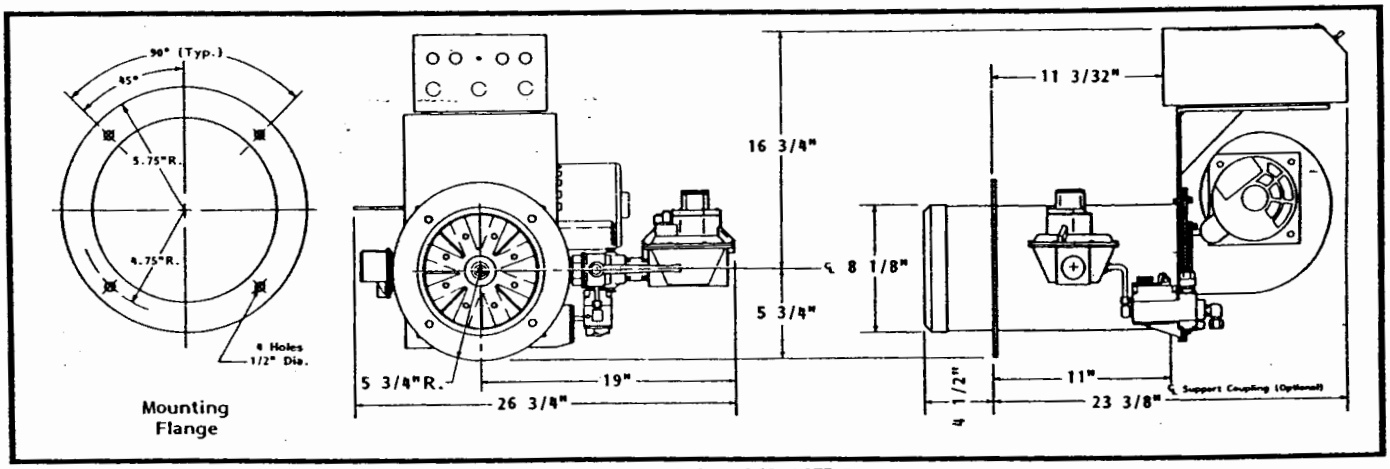

**MODEL G4.9 BURNER**




**MODEL G4 BURNER**




**MODEL G6 BURNER**



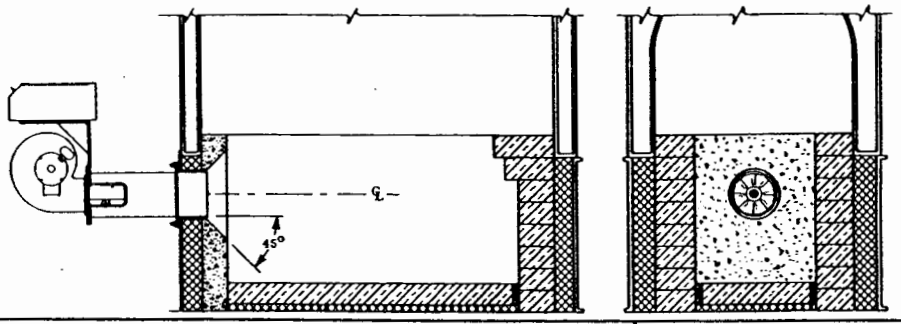

**MODEL G8 BURNER**

| Minimum Recommended Combustion Chamber Dimensions (Inches) | | | |
|---|---|---|---|
| Input MBh | Rectangular Chamber | | Round Chamber |
| | Inside Width | Inside Length | Inside Diameter |
| 100-375 | 12 | 14 | 12 |
| 376-600 | 14 | 19 | 14 |
| 601-800 | 15 | 24 | 16 |
| 801-1000 | 18 | 29 | 18 |
| 1001-1200 | 20 | 34 | 20 |
| 1201-1400 | 21 | 39 | 22 |
| 1401-1600 | 22 | 44 | 22 |
| 1601-1800 | 24 | 49 | 24 |
| 1801-2000 | 26 | 54 | 26 |
| 2001-2200 | 27 | 57 | 28 |
| 2201-2500 | 28 | 60 | 28 |

**NOTE**

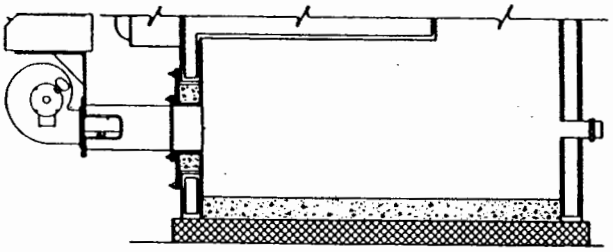
Combustion chamber dimensions may vary from table to fit job conditions. Floor area should not be less than 50 square inches per 100 MBh input. Larger floor areas are desirable as combustion chamber temperatures will be reduced giving longer refractory life. Combustion chamber length should not be less than 1 1/2 times the width. Combustion chamber height should equal chamber width or approximately twice the nozzle height of the burner from the floor. Recommended minimum distance from center line of burner head to the floor is 6".

## Typical Applications



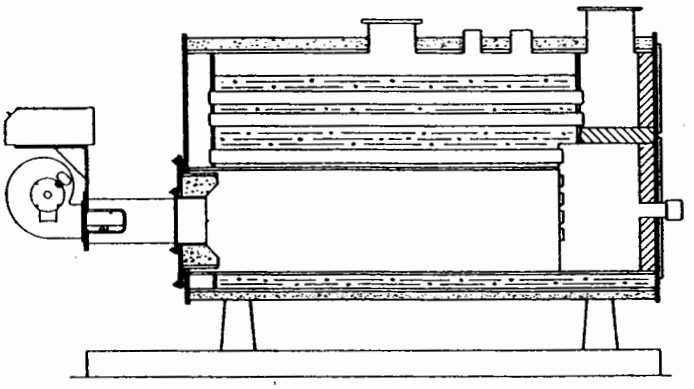

### FIREBOX BOILER WITH COMBUSTION CHAMBER IN BASE

The illustration at left shows the burner installed in a conventional firebox boiler using a standard base and combustion chamber.



### FIREBOX BOILER FOR "FORCED DRAFT" FIRING

The burner installation in a firebox type boiler designed for forced draft firing requires no refractory other than in the floor of the firebox and the burner frontplate. Special frontplates may be ordered with the burner to fit the boiler opening.



### INSTALLATION IN SCOTCH MARINE BOILER

May be installed in Scotch Marine boilers of either 2 or 3 pass design. Refractory frontplate may be ordered with burner to adapt burner to boiler and provide protection to non-water backed surfaces