



Product Information

Model: HG, HL, HLG

Burner Sizes: 10, 13, 15, 17, 20, 21, 25

GENERAL DESCRIPTION

The H-Series gas, oil, and combination gas/oil burner is a forced draft packaged burner system. A backward curved impeller mounted in a machined housing provides combustion air for various furnace pressures or high altitude applications.

HG gas burners burn gas under a controlled gas/air pressure mix. Gas is emitted from jets surrounding the air stream, producing a turbulent mixture which burns quietly and efficiently.

HL oil burners incorporate a high pressure atomizing design using simplex nozzles. A directly driven fuel oil pump is burner mounted. Consistent fuel/air ratio is maintained regardless of firing rate.

HLG combination gas/oil burners change from one fuel to the other by simply flipping a switch. No burner modifications or readjustments are required when changing from one fuel to the other.

Listed by Underwriters Laboratory. CSD-1, GE Gap, F.M. and other regulatory agency control options are available.

Every burner is assembled, wired and tested at the factory.

U.L. STANDARD EQUIPMENT

A. CONTROLS

1. 120/1/60 control circuit
2. Burner mounted control panel
3. Motor starter(s)
4. Panel signal lights (4) (See Note 5)
5. Low-High-Off firing
6. Fuel changeover switch (combination gas/oil models)
7. Flame safeguard controls (See Note 1)
8. Combustion air proving switch
9. Ignition transformer

B. OIL SYSTEM

1. Two stage fuel unit, directly driven
2. Simplex oil nozzle
3. Oil solenoid valve
4. S.S.O. oil solenoid valve
5. Oil metering valve
6. Fuel oil strainer (shipped loose)

C. MAIN GAS SYSTEM (See Note 2)

1. Butterfly rate control valves
2. One motorized valve and one solenoid valve
3. Gas shutoff cocks (2)
4. Main gas regulator

D. GAS PILOT SYSTEM

1. Gas-electric interrupted pilot (HG, HLG)
2. Shutoff cock
3. Separate pilot regulator and valve
4. Direct spark ignition (HL)

E. OTHER EQUIPMENT

1. 3450 rpm blower motor
2. Burner mounting flange
3. Gas manifold is standard on all oil burners for future gas firing

F. OPTIONAL EQUIPMENT

1. Control circuit transformer
2. Separately driven remote oil pump set
3. Low-High-Low or full modulation
4. Inverted housing arrangement

NOTES

1. U.V. scanner standard
2. All main gas line valves and accessories upstream of butterfly valve are shipped loose
3. Standard motor voltages are 208-230-460/3/60
4. Totally enclosed and 50 cycle motors are optional
5. Signal lights: Power On, Main Fuel, Ignition, and Flame Failure

ORDERING INFORMATION (SPECIFY)

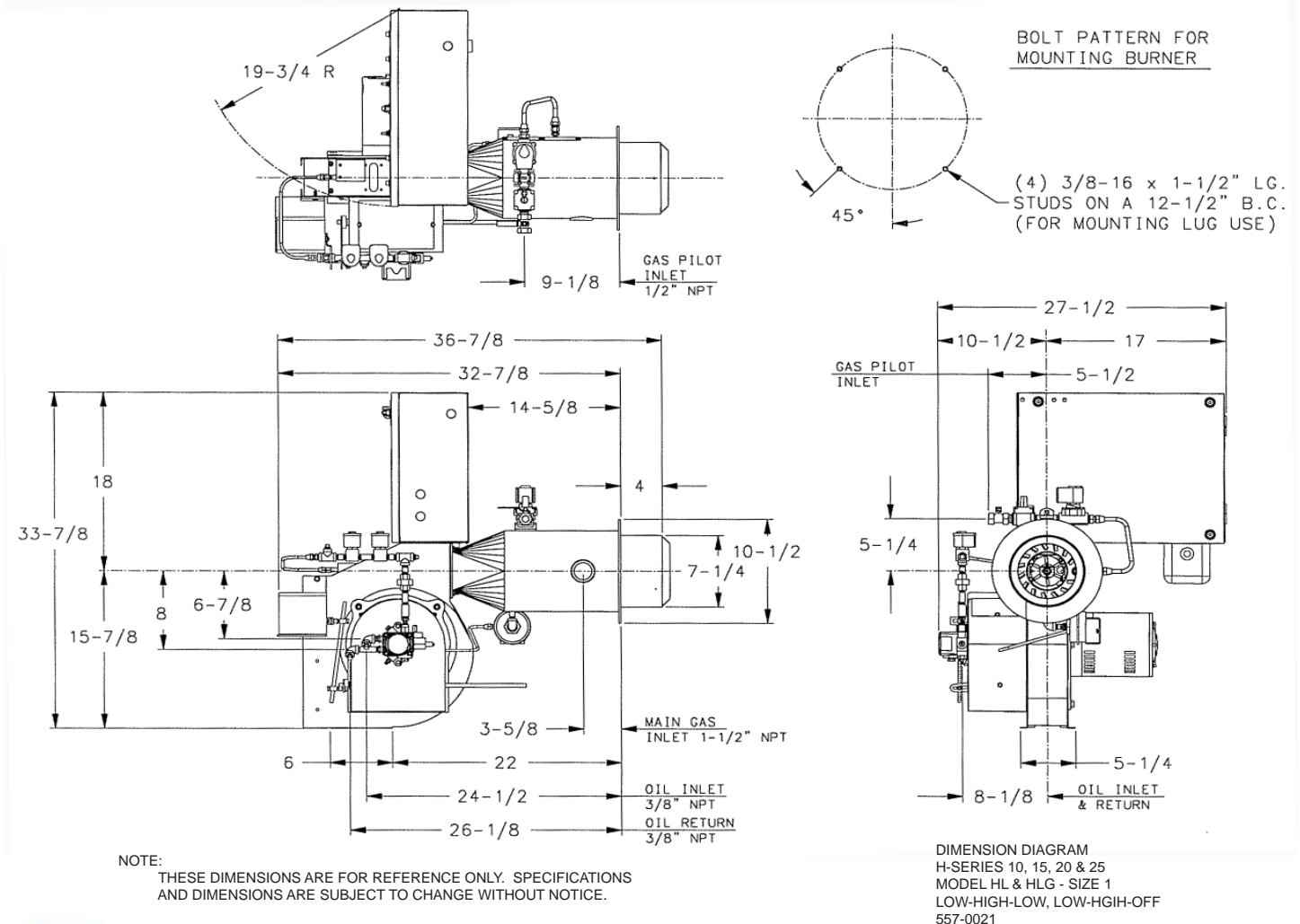
1. Burner voltage, phase and cycle (See Note 3)
2. Control Circuit Voltage (120/1/60)
3. Burner model and actual firing rate
4. Flame Safeguard Control
5. Special Code and/or Insurance Requirements
6. Available Gas Pressure

Type of fuel determines the model designation	
Model	Fuel
HG	Gas
HL	Oil
HLG	No. 2 Oil / Gas

CAPACITIES & SPECIFICATIONS	BURNER SIZE						
	10	13	15	17	20	21	25
GAS INPUT (Mbtu/hr) (See Note 1)	1,000	1,300	1,500	1,700	2,000	2,100	2,500
OIL INPUT (U.S. GPH) (See Note 2)	7.1	9	10.7	12	14.2	15.0	17.8
BOILER HP @ 80% EFF. (See Note 3)	24	30	36	40	48	50	60
GAS MANIFOLD HP ("w.c.) (See Note 4)	0.9	1.5	1.9	2.4	3.2	3.5	4.7
BLOWER MOTOR HP (See Note 5)	1/3	1/3	1/2	1/2	1/2	1/2	3/4
APPROX. SHIPPING WEIGHT (lbs.)	450	450	450	450	450	450	450

Notes:

1. Gas input based on natural gas at 1,000 Btu/cu.ft. and 0.60 gravity
2. Oil input based on No. 2 oil at 140,000 Btu/gal.
3. Boiler overall efficiency of 80% estimated
4. Gas pressure based on zero furnace pressure. For total pressure at manifold, add furnace pressure.
5. Impeller and motor HP is based on altitude up to 2,000 ft. above sea level. For higher altitude or 50 Hz. applications, consult factory





Product Information

Model: HG, HL, HLG

Burner Sizes: 30, 34, 35, 40, 42, 45

GENERAL DESCRIPTION

The H-Series gas, oil, and combination gas/oil burner is a forced draft packaged burner system. A backward curved impeller mounted in a machined housing provides combustion air for various furnace pressures or high altitude applications.

HG gas burners burn gas under a controlled gas/air pressure mix. Gas is emitted from jets surrounding the air stream, producing a turbulent mixture which burns quietly and efficiently.

HL oil burners incorporate a high pressure atomizing design using simplex nozzles. A directly driven fuel oil pump is burner mounted. Consistent fuel/air ratio is maintained regardless of firing rate.

HLG combination gas/oil burners change from one fuel to the other by simply flipping a switch. No burner modifications or readjustments are required when changing from one fuel to the other.

Listed by Underwriters Laboratory. CSD-1, GE Gap, F.M. and other regulatory agency control options are available.

Every burner is assembled, wired and tested at the factory.

U.L. STANDARD EQUIPMENT

A. CONTROLS

1. 120/1/60 control circuit
2. Burner mounted control panel
3. Motor starter(s)
4. Panel signal lights (4) (See Note 5)
5. Low-High-Off firing
6. Fuel changeover switch (combination gas/oil models)
7. Flame safeguard controls (See Note 1)
8. Combustion air proving switch
9. Ignition transformer

B. OIL SYSTEM

1. Two stage fuel unit, directly driven
2. Simplex oil nozzle
3. Oil solenoid valve
4. S.S.O. oil solenoid valve
5. Oil metering valve
6. Fuel oil strainer (shipped loose)

C. MAIN GAS SYSTEM (See Note 2)

1. Butterfly rate control valves
2. One motorized valve and one solenoid valve
3. Gas shutoff cocks (2)
4. Main gas regulator

D. GAS PILOT SYSTEM

1. Gas-electric interrupted pilot (HG, HLG)
2. Shutoff cock
3. Separate pilot regulator and valve
4. Direct spark ignition (HL)

E. OTHER EQUIPMENT

1. 3450 rpm blower motor
2. Burner mounting flange
3. Gas manifold is standard on all oil burners for future gas firing

F. OPTIONAL EQUIPMENT

1. Control circuit transformer
2. Separately driven remote oil pump set
3. Low-High-Low or full modulation
4. Inverted housing arrangement

NOTES

1. U.V. scanner standard
2. All main gas line valves and accessories upstream of butterfly valve are shipped loose
3. Standard motor voltages are 208-230-460/3/60
4. Totally enclosed and 50 cycle motors are optional
5. Signal lights: Power On, Main Fuel, Ignition, and Flame Failure

ORDERING INFORMATION (SPECIFY)

1. Burner voltage, phase and cycle (See Note 3)
2. Control Circuit Voltage (120/1/60)
3. Burner model and actual firing rate
4. Flame Safeguard Control
5. Special Code and/or Insurance Requirements
6. Available Gas Pressure

Type of fuel determines the model designation	
Model	Fuel
HG	Gas
HL	Oil
HLG	No. 2 Oil / Gas



Product Information

Model: HG, HL, HLG

Burner Sizes: 50, 54, 55, 60, 63, 70, 80, 84, 90

GENERAL DESCRIPTION

The H-Series gas, oil, and combination gas/oil burner is a forced draft packaged burner system. A backward curved impeller mounted in a machined housing provides combustion air for various furnace pressures or high altitude applications.

HG gas burners burn gas under a controlled gas/air pressure mix. Gas is emitted from jets surrounding the air stream, producing a turbulent mixture which burns quietly and efficiently.

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Every burner is assembled, wired and tested at the factory.

U.L. STANDARD EQUIPMENT

A. CONTROLS

1. 120/1/60 control circuit
2. Burner mounted control panel
3. Motor starter(s)
4. Panel signal lights (4) (See Note 5)
5. Full Modulation
6. Fuel changeover switch (combination gas/oil models)
7. Flame safeguard controls (See Note 1)
8. Combustion air proving switch
9. Ignition transformer

B. OIL SYSTEM

1. Two stage fuel unit, directly driven
2. Simplex oil nozzle
3. Oil solenoid valve
4. S.S.O. oil solenoid valve
5. Oil metering valve
6. Fuel oil strainer (shipped loose)

C. MAIN GAS SYSTEM (See Note 2)

1. Butterfly rate control valves
2. One motorized valve and one solenoid valve
3. Gas shutoff cocks (2)
4. Main gas regulator

D. GAS PILOT SYSTEM

1. Gas-electric interrupted pilot (HG, HLG)
2. Shutoff cock
3. Separate pilot regulator and valve
4. Direct spark ignition (HL)

E. OTHER EQUIPMENT

1. 3450 rpm blower motor
2. Burner mounting flange
3. Gas manifold is standard on all oil burners for future gas firing

F. OPTIONAL EQUIPMENT

1. Control circuit transformer
2. Separately driven remote oil pump set
3. Air atomizing (models HLA or HLAG) system w/separate air compressor
4. Inverted housing arrangement

NOTES

1. U.V. scanner standard
2. All main gas line valves and accessories upstream of butterfly valve are shipped loose
3. Standard motor voltages are 208-230-460/3/60
4. Totally enclosed and 50 cycle motors are optional
5. Signal lights: Power On, Main Fuel, Ignition, and Flame Failure

ORDERING INFORMATION (SPECIFY)

1. Burner voltage, phase and cycle (See Note 3)
2. Control Circuit Voltage (120/1/60)
3. Burner model and actual firing rate
4. Flame Safeguard Control
5. Special Code and/or Insurance Requirements
6. Available Gas Pressure

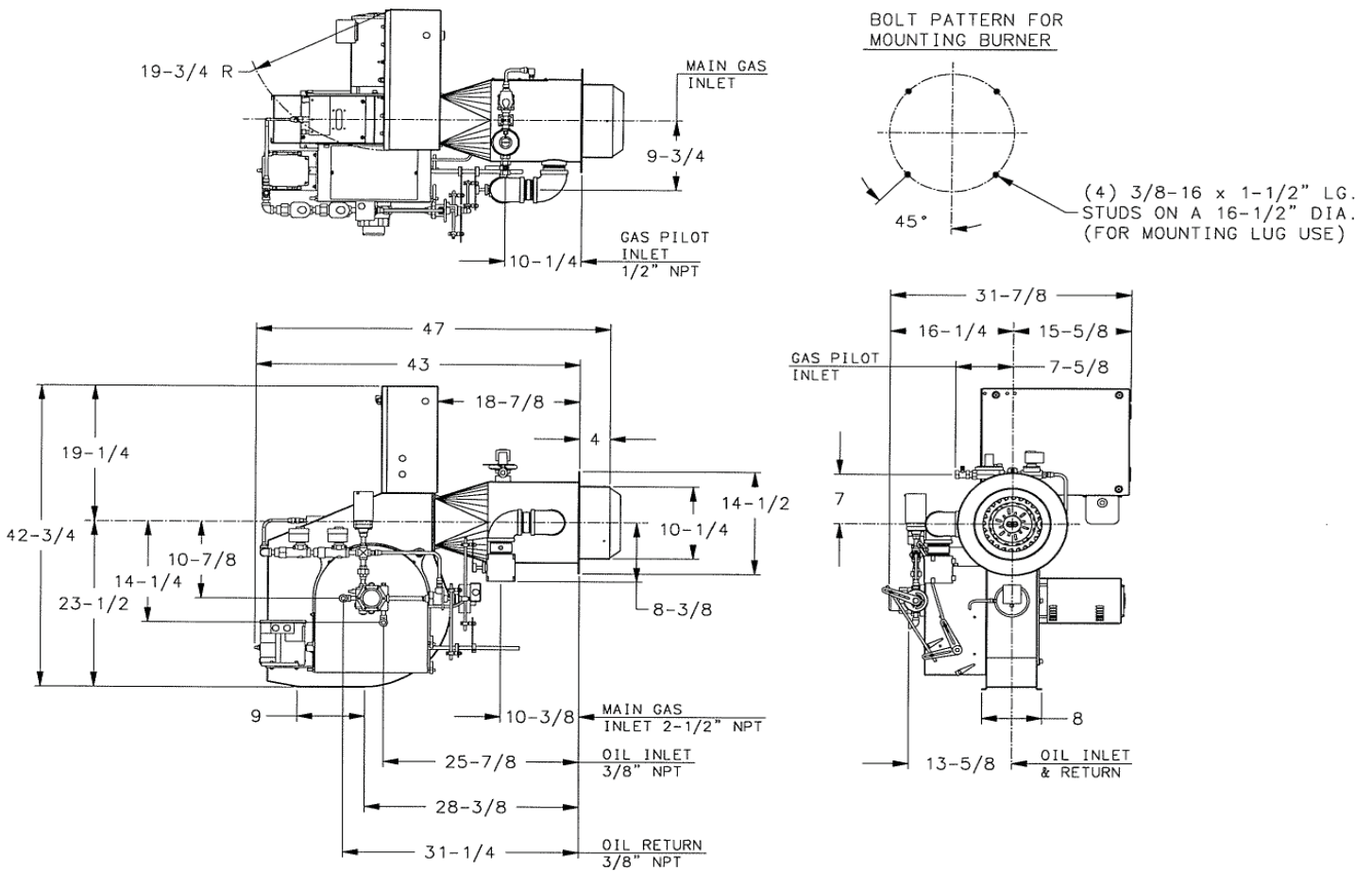
Type of fuel determines the model designation	
Model	Fuel
HG	Gas
HL	Oil
HLG	No. 2 Oil / Gas

Product Information

CAPACITIES & SPECIFICATIONS	BURNER SIZE								
	50	54	55	60	63	70	80	84	90
GAS INPUT (Mbtu/hr) (See Note 1)	5,000	5,400	5,500	6,000	6,300	7,000	8,000	8,400	9,000
OIL INPUT (U.S. GPH) (See Note 2)	35.7	37.5	39.2	42.8	45.0	50.0	57.1	60.0	64.2
BOILER HP @ 80% EFF. (See Note 3)	120	125	130	143	150	167	191	200	215
GAS MANIFOLD HP ("w.c.) (See Note 4)	7.3	7.8	8.6	6.5	7.1	8.7	11.2	12.3	14.1
BLOWER MOTOR HP (See Note 5)	2	2	3	3	5	5	5	5	7.5
APPROX. SHIPPING WEIGHT (lbs.)	700	700	700	700	700	700	700	700	700

Notes:

1. Gas input based on natural gas at 1,000 Btu/cu.ft. and 0.60 gravity
2. Oil input based on No. 2 oil at 140,000 Btu/gal.
3. Boiler overall efficiency of 80% estimated
4. Gas pressure based on zero furnace pressure. For total pressure at manifold, add furnace pressure.
5. Impeller and motor HP is based on altitude up to 2,000 ft. above sea level. For higher altitude or 50 Hz. applications, consult factory



NOTE:
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DIMENSION DIAGRAM
H-SERIES 50, 55, 60, 70, 80 & 90
MODEL HL & HLG - SIZE 3
557-0001-B



Product Information

Model: HG, HL, HLG

Burner Sizes: 100, 105, 110, 120, 125

GENERAL DESCRIPTION

The H-Series gas, oil, and combination gas/oil burner is a forced draft packaged burner system. A backward curved impeller mounted in a machined housing provides combustion air for various furnace pressures or high altitude applications.

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U.L. STANDARD EQUIPMENT

A. CONTROLS

1. 120/1/60 control circuit
2. Burner mounted control panel
3. Motor starter(s)
4. Panel signal lights (4) (See Note 5)
5. Full Modulation
6. Fuel changeover switch (combination gas/oil models)
7. Flame safeguard controls (See Note 1)
8. Combustion air proving switch
9. Ignition transformer

B. OIL SYSTEM

1. Two stage fuel unit, directly driven
2. Simplex oil nozzle
3. Oil solenoid valve
4. S.S.O. oil solenoid valve
5. Oil metering valve
6. Fuel oil strainer (shipped loose)

C. MAIN GAS SYSTEM (See Note 2)

1. Butterfly rate control valves
2. One motorized valve and one solenoid valve
3. Gas shutoff cocks (2)
4. Main gas regulator

D. GAS PILOT SYSTEM

1. Gas-electric interrupted pilot (HG, HLG)
2. Shutoff cock
3. Separate pilot regulator and valve
4. Direct spark ignition (HL)

E. OTHER EQUIPMENT

1. 3450 rpm blower motor
2. Burner mounting flange
3. Gas manifold is standard on all oil burners for future gas firing

F. OPTIONAL EQUIPMENT

1. Control circuit transformer
2. Separately driven remote oil pump set
3. Air atomizing (models HLA or HLAG) system w/separate air compressor
4. Inverted housing arrangement

NOTES

1. U.V. scanner standard
2. All main gas line valves and accessories upstream of butterfly valve are shipped loose
3. Standard motor voltages are 208-230-460/3/60
4. Totally enclosed and 50 cycle motors are optional
5. Signal lights: Power On, Main Fuel, Ignition, and Flame Failure

ORDERING INFORMATION (SPECIFY)

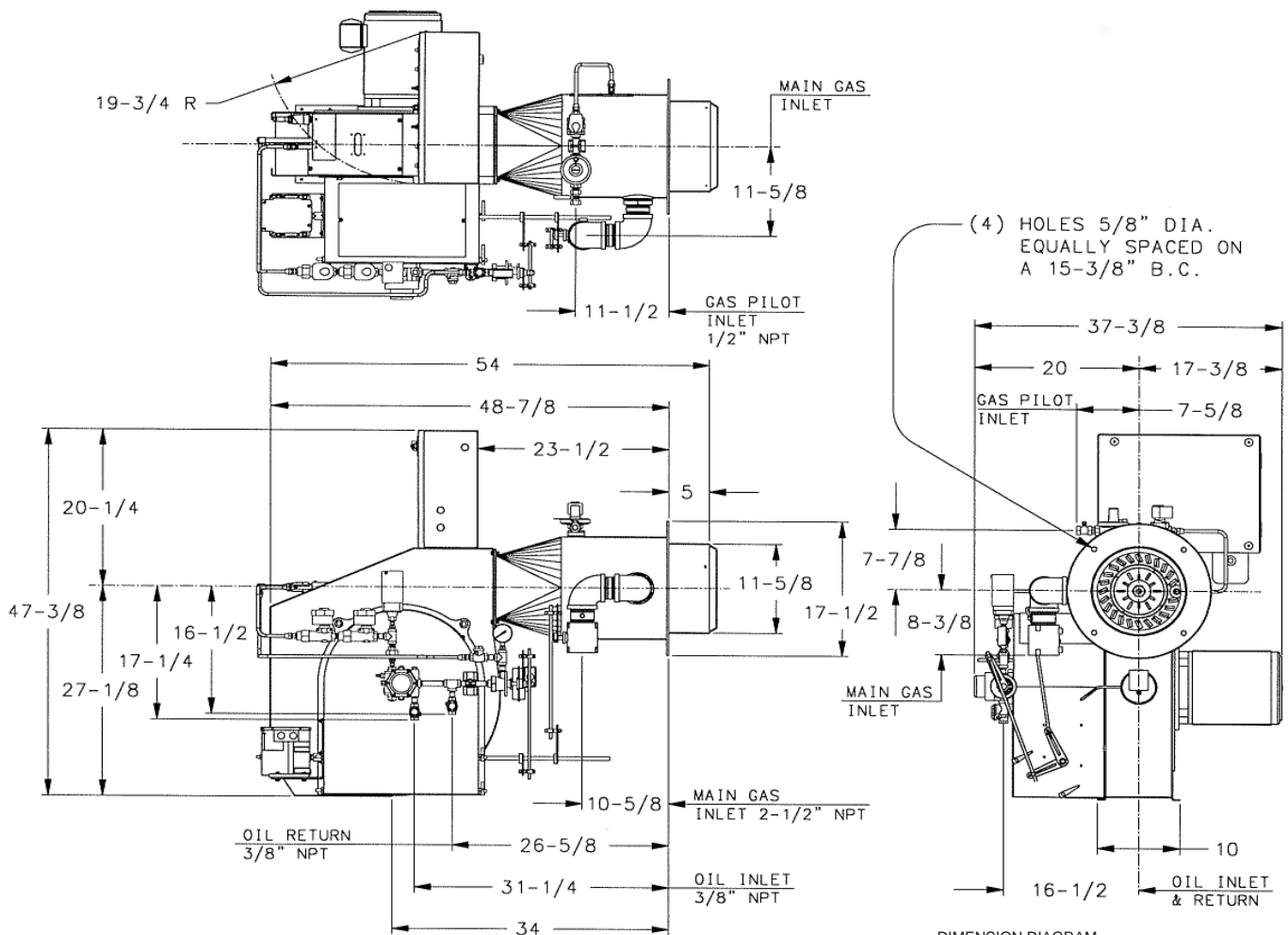
1. Burner voltage, phase and cycle (See Note 3)
2. Control Circuit Voltage (120/1/60)
3. Burner model and actual firing rate
4. Flame Safeguard Control
5. Special Code and/or Insurance Requirements
6. Available Gas Pressure

Type of fuel determines the model designation	
Model	Fuel
HG	Gas
HL	Oil
HLG	No. 2 Oil / Gas

CAPACITIES & SPECIFICATIONS	BURNER SIZE				
	100	105	110	120	125
GAS INPUT (Mbtu/hr) (See Note 1)	10,000	10,500	11,000	12,000	12,500
OIL INPUT (U.S. GPH) (See Note 2)	71.4	75.0	78.5	85.7	90.0
BOILER HP @ 80% EFF. (See Note 3)	239	250	263	287	300
GAS MANIFOLD HP ("w.c.) (See Note 4)	14	15.5	17	20	22
BLOWER MOTOR HP (See Note 5)	7 1/2	7 1/2	7 1/2	10	10
APPROX. SHIPPING WEIGHT (lbs.)	1,100	1,100	1,100	1,450	1,450

Notes:

1. Gas input based on natural gas at 1,000 Btu/cu.ft. and 0.60 gravity
2. Oil input based on No. 2 oil at 140,000 Btu/gal.
3. Boiler overall efficiency of 80% estimated
4. Gas pressure based on zero furnace pressure. For total pressure at manifold, add furnace pressure.
5. Impeller and motor HP is based on altitude up to 2,000 ft. above sea level. For higher altitude or 50 Hz. applications, consult factory



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DIMENSION DIAGRAM
H-SERIES 100 - 120
MODEL HL & HLG - SIZE 4
557-0028