



GAS-OIL BURNER SPECIFICATIONS

G-Series

The manufacturer shall provide a burner tested and listed by Intertek-ETL Semko, a national third party test agency to all application safety standards for use in the United States and in Canada: ANSI Z21.17 Standard for Domestic Gas Conversion Burners 1991 with Addenda ANSI Z21.12a-1993 and ANSI Z21.17b-1994; CSA 2.7-M98, Dated September 21, 1998. UL296 Standard for Safety of Oil Burners, Tenth Edition dated September 11, 2003 with Revisions through February 24, 2006. UL296A Standard for Safety of Waste Oil –Burning Air-Heating Appliances, Second Edition Dated October 31, 1995 With Revisions through March 8, 2006. CSA B140.2.1-M90 Standard for Safety of Oil Burners; Atomizing Type, Dated July 1990. UL 795 Standard for Safety for Commercial-Industrial Gas Heating Equipment, Fifth Edition, Dated July 27, 1999, With revisions through and including March 9, 2006. CGA 3.4 Industrial and Commercial Gas-Fired Conversion Burners – Editorial Revision: 1973; Amendments A3 to A4: Published August 1983 dated 05/01/1973 with revisions through 2003.

SPECIFICATIONS & SETTINGS	G200	G400	G750	G900
INPUT BTU (x 1000)	125 to 250	200 to 450	400 to 750	500 to 950
FUEL USAGE, GPH	.84 to 4.6	1.4 to 3.2	2.8 to 5.4	3.6 to 6.8
DIMENSIONS, LENGTH, INCHES	11-5/8	13-11/16	15-5/16	15-5/16
DIMENSIONS, WIDTH, INCHES	13-3/4	13-3/4	13-3/4	13-3/4
DIMENSIONS, HEIGHT, INCHES	10-11/16	10-11/16	10-11/16	11-3/4
WEIGHT OF BURNER, LBS	40	40	50	72
WEIGHT OF CONTROL PANEL, LBS	35	35	35	35
ELECTRICAL SUPPLY, VOLTS/HZ	120/60	120/60	120/60	120/60
ELECTRICAL DRAW (MAX), AMPS	20	20	20	20
240 VOLTS & 50 HZ AVAILABILITY	Yes	Yes	Yes	Yes
BURNER MOTOR, AMPS	2.2	2.2	4.3	4.3
BURNER, RPM	3,250	3,250	3,250	3,250
SEALED COMBUSTION KIT AVAILABLE	Yes	Yes	Yes	No
COMPRESSED AIR REQUIREMENTS, CFM	2	2	3	3
ATOMIZING AIR SETTING, PSIG	19	19	19	19
COMPRESSED AIR REQUIREMENTS, PSIG	30	30	35	35
NATURAL GAS SUPPLY PRESSURE, MIN/MAX “ OF WC	4/10	4/10	7/14	7/14
N/G MANIFOLD PRESSURES, MIN/MAX-“ OF WC	0.70/2.0	0.9/1.80	1.6/2.1	1.0/3.3
PROPANE SUPPLY PRESSURE, MIN/MAX “ OF WC	8/13	8/13	8/13	8/13
PROPANE MANIFOLD PRESSURES, MIN/MAX-“ OF WC	0.90/2.96	1.1/3.0	1.4/3.0	3.4/6.0
NOZZLE SIZE	3.1	5	5	8
HI OIL PRESSURE – PSIG	12	7	12	16
LO OIL PRESSURE – PSIG	6	4	6	8
FUEL PUMP CONNECTION – NPT	¼	¼	¼	¼
AIR GATE ADJUSTMENT	2 to 4	2 to 4	2 to 4	Automatic

SPECIFICATIONS	G200	G400	G750	G900
SAFETY CONTROLS, STANDARD				
• Fireye Industrial Control	Yes	Yes	Yes	Yes
• Ultraviolet flame detection	Yes	Yes	Yes	Yes
• 90 second ignition pre-purge cycle	Yes	Yes	Yes	Yes
• Continual proof of atomizing air	Yes	Yes	Yes	Yes
• Continual proof of combustion air	Yes	Yes	Yes	Yes
• Safe start sequence	Yes	Yes	Yes	Yes
• Trial for ignition – 10 seconds	Yes	Yes	Yes	Yes
• Flame failure shutoff, in 3 seconds	Yes	Yes	Yes	Yes
• Safety shut-down indicator light	Yes	Yes	Yes	Yes
• Main flame trial-for-ignition, 6 seconds	Yes	Yes	Yes	Yes
ADDITIONAL CONTROLS	Yes	Yes	Yes	Yes
• Fuel shut-off by solenoid valve(s)	Yes	Yes	Yes	Yes
• Dungs two-stage gas valve	Yes	Yes	Yes	Yes
• Line voltage thermostat controls burner power	Yes	Yes	Yes	Yes
• Oil temperature interlock	Yes	Yes	Yes	Yes
• Remote reset				
• Automatic nozzle cleanout	Yes	Yes	Yes	Yes
PLC BASED CONVENIENCE CONTROLS				
• Automatic restart	Yes	Yes	Yes	Yes
• Ignition test switch	Yes	Yes	Yes	Yes
• Fuel Selection Switch	Yes	Yes	Yes	Yes
• Gas & Oil Hour Meter	Yes	Yes	Yes	Yes
• Automatic switch to gas with loss of oil pressure	Yes	Yes	Yes	Yes
• Heater on/off switch & varying temperature	Yes	Yes	Yes	Yes
• Fuel Indicator Lights & Warning Lights	Yes	Yes	Yes	Yes

This series of gas-oil burners will use as fuel natural gas or propane, or the following listed oils, or the combination of gas and oil at the same time. If oil pressure is lost, the PLC control automatically switches the fuel to gas. Listed fuels: Fuel oil, #2 up to #6, crankcase oil, transmission & hydraulic oil, natural gas or propane.

Fuels capable of burning as fuel (& warranted with written approval from INOV8): Used crankcase oils, Transmission & Hydraulic oils, 90 weight gear box oil, heat transfer oil, Mineral spirits solvents, Machine shop cutting oils, Vegetable oils – new & used (soybean, peanut, canola, corn, olive), Glycerin (some versions), Synthetic oils, and Commercial & Military jet fuels.

*Based on 140,000 BTU/gallon – oil must be analyzed for BTU content as oil pressure will vary.

** Dependant on heat loss of building & local climate

Note – if using burner on a boiler – refer to the Boiler Specification sheet for more detailed information on connection, settings and other requirements.