

## Burner Capacity Information, BBG 1008/2008

### NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
<b>Capacity</b> (at 10% Excess Air)	(BTU/hr)	<b>1,211,000</b>	<b>5,991,000</b>	<b>8,507,000</b>	<b>10,486,000</b>	<b>12,015,000</b>
	(kW)	<b>320</b>	<b>1,580</b>	<b>2,250</b>	<b>2,770</b>	<b>3,180</b>
Air Capacity	(scfh)	12,550	62,075	88,150	108,650	124,500
	(nm <sup>3</sup> /hr)	336	1,663	2,361	2,911	3,335
Air Inlet Pressure	(in.w.c.)	0.3	6.9	13.9	20.8	27.7
	(mbar)	0.7	17.2	34.5	51.7	68.9
Gas Inlet Pressure	(in.w.c.)	0.1	3.2	6.4	9.3	12.2
	(mbar)	0.3	8.0	15.9	23.1	30.4
Flame Length (at 10% Excess Air)	(in)	60	84	96	108	120
	(mm)	1520	2130	2440	2740	3050
Flame Diameter (at 10% Excess Air)	(in)	24	30	30	36	36
	(mm)	610	760	760	910	910
Maximum Operating Excess	(Air)	300%	500%	500%	600%	600%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	1,800	9,000	N/R	N/R	N/R
	(nm <sup>3</sup> /hr)	48.2	241.1	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	375	1,100	N/R	N/R	N/R
	(nm <sup>3</sup> /hr)	10.0	29.5	N/R	N/R	N/R

## Burner Capacity Information, BBG 3008

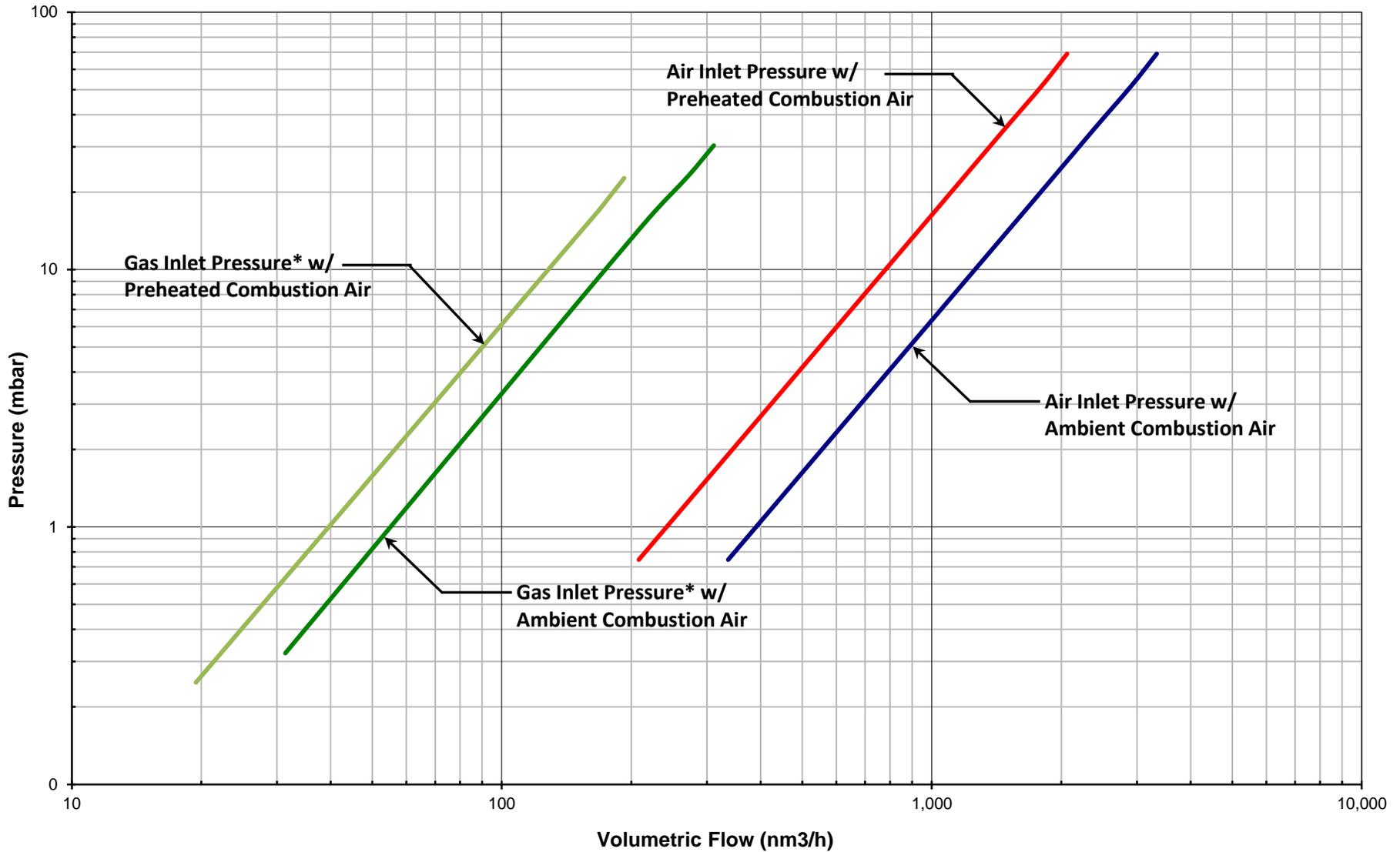
### NATURAL GAS, 900°F/482°C PREHEATED COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
<b>Capacity</b> (at 10% Excess Air)	(BTU/hr)	<b>750,000</b>	<b>3,708,000</b>	<b>5,269,000</b>	<b>6,493,000</b>	<b>7,438,000</b>
	(kW)	<b>200</b>	<b>980</b>	<b>1,390</b>	<b>1,720</b>	<b>1,970</b>
Air Capacity	(scfh)	7,775	38,425	54,600	67,275	77,075
	(nm <sup>3</sup> /hr)	208	1,029	1,463	1,802	2,065
Air Inlet Pressure	(in.w.c.)	0.3	6.9	13.9	20.8	27.7
	(mbar)	0.7	17.2	34.5	51.7	68.9
Gas Inlet Pressure	(in.w.c.)	0.1	2.3	4.6	6.8	9.1
	(mbar)	0.2	5.7	11.3	17.0	22.6
Flame Length (at 10% Excess Air)	(in)	48	60	72	78	84
	(mm)	1220	1520	1830	1980	2130
Flame Diameter (at 10% Excess Air)	(in)	24	24	30	30	36
	(mm)	610	610	760	760	910
Maximum Operating Excess	(Air)	250%	400%	400%	500%	500%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	1,100	5,500	N/R	N/R	N/R
	(nm <sup>3</sup> /hr)	29.5	147.3	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	250	800	N/R	N/R	N/R
	(nm <sup>3</sup> /hr)	6.7	21.4	N/R	N/R	N/R

#### NOTES:

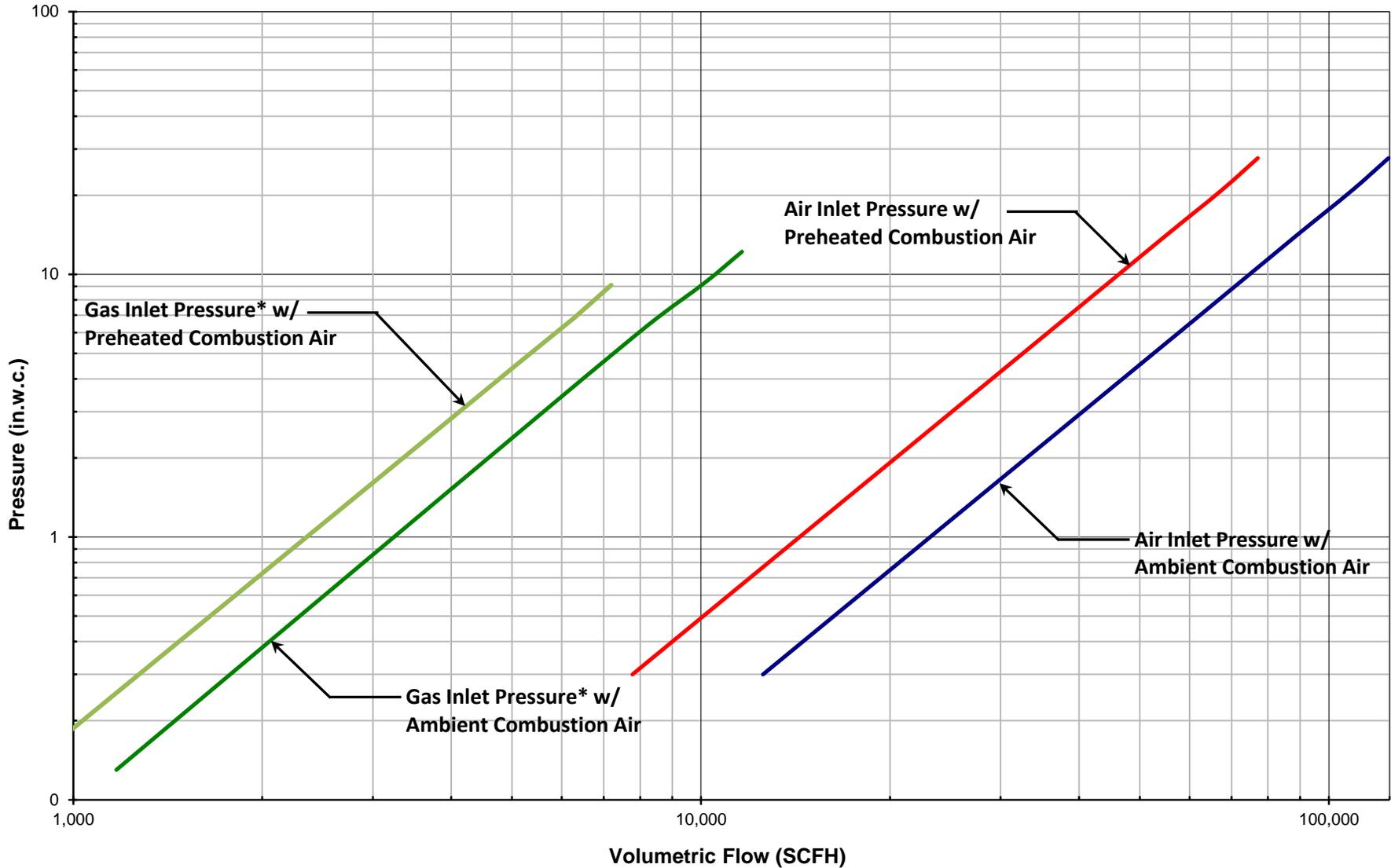
- Capacities based on Natural Gas with HHV of 1034 BTU/ft<sup>3</sup> (Standard), and LHV of 10.21 kWh/nm<sup>3</sup> (Metric), 0.59 S.G., and a stoichiometric ratio of 9.74:1 with burner firing into chamber under no pressure at 10% excess air.
- Air and fuel flows based on STP operating conditions at sea level and industry standard air and gas piping practices.
- Gas inlet pressure given for reference only and should not be used for measuring fuel flow to the burner.
- Flame lengths measured from end of the combustion tile.
- Flame detection via UV scanner or flame rod (1000 series only).
- Ignition limits are established with (1) IPG5413 gas pilot, (2) IPE50 spark igniter, and (3) ZMI 16 gas pilot; with metered air and fuel flows and 5kV/15mA spark ignition transformer; for limits listed as N/R ignition is Not Recommended at this capacity.
- Burner is suitable for use on gaseous fuels other than Natural Gas and with combustion air other than ambient temperature, consult Hauck.

**BBG 1008/2008/3008 Pressure Curves**  
**Natural Gas 1034 BTU/ft<sup>3</sup> (HHV Standard) / 10.21 kWh/nm<sup>3</sup> (LHV Metric), 0.59 S.G.**  
**and Ambient and Preheated Combustion Air**



\*Note: Gas Inlet Pressure for BBG burner is not suitable for fuel flow measurement and is given for component sizing and reference only

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# BBG 1008/2008/3008 Operating and Ignition Window

Natural Gas 1034 BTU/ft<sup>3</sup> (HHV Standard) / 10.21 kWh/nm<sup>3</sup> (LHV Metric), 0.59 S.G.  
and Ambient Combustion Air

