



Burner Capacity Information, BBG 1012/2012

NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	2,650,000	12,790,000	18,070,000	22,200,000	25,570,000
	(kW)	700	3,380	4,780	5,870	6,760
Air Capacity	(scfh)	27,500	132,500	187,250	230,000	265,000
	(nm ³ /hr)	737	3,549	5,016	6,161	7,099
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	1.8	3.2	4.6	5.8
	(mbar)	0.2	4.5	8.0	11.4	14.4
Flame Length (at 10% Excess Air)	(in)	72	120	144	156	168
	(mm)	1830	3050	3660	3960	4270
Flame Diameter (at 10% Excess Air)	(in)	36	42	42	48	48
	(mm)	910	1070	1070	1220	1220
Maximum Operating Excess	(Air)	300%	500%	500%	500%	500%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	3,750	19,000	N/R	N/R	N/R
	(nm ³ /hr)	100.5	509.0	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	750	2,300	N/R	N/R	N/R
	(nm ³ /hr)	20.1	61.6	N/R	N/R	N/R

Burner Capacity Information, BBG 3012

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

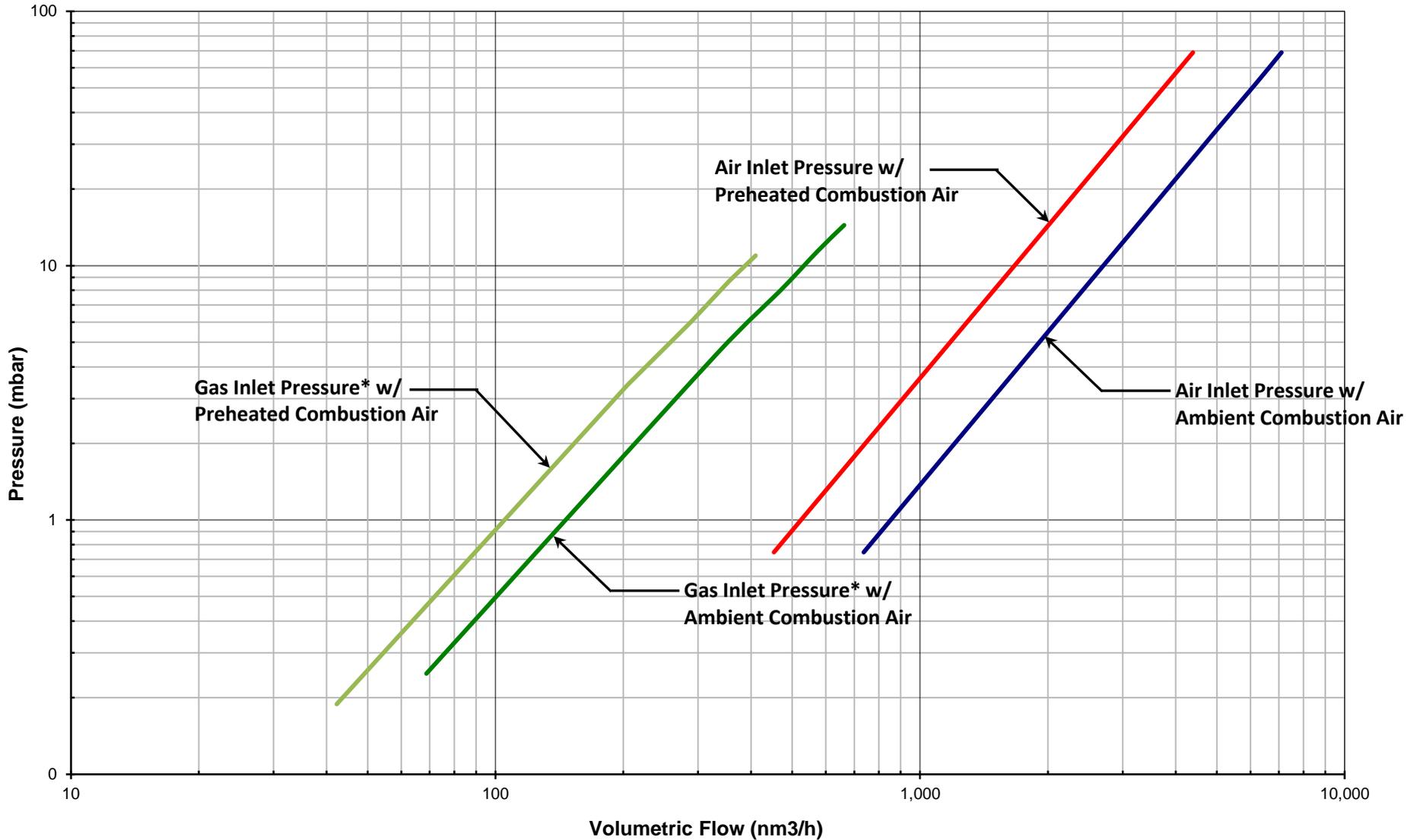
SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	1,630,000	7,910,000	11,180,000	13,700,000	15,830,000
	(kW)	430	2,090	2,960	3,620	4,190
Air Capacity	(scfh)	16,900	81,925	115,850	142,000	164,000
	(nm ³ /hr)	453	2,195	3,103	3,804	4,393
Air Inlet Pressure	(in.w.c.)	0.3	6.9	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	1.4	2.4	3.5	4.4
	(mbar)	0.2	3.4	6.0	8.7	10.9
Flame Length (at 10% Excess Air)	(in)	66	96	108	120	132
	(mm)	1680	2440	2740	3050	3350
Flame Diameter (at 10% Excess Air)	(in)	36	42	42	48	48
	(mm)	910	1070	1070	1220	1220
Maximum Operating Excess	(Air)	250%	400%	400%	400%	400%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	2,400	11,500	N/R	N/R	N/R
	(nm ³ /hr)	64.3	308.1	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	500	1,700	N/R	N/R	N/R
	(nm ³ /hr)	13.4	45.5	N/R	N/R	N/R

NOTES:

- Capacities based on Natural Gas with HHV of 1034 BTU/ft³ (Standard), and LHV of 10.21 kWh/nm³ (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.
- 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.

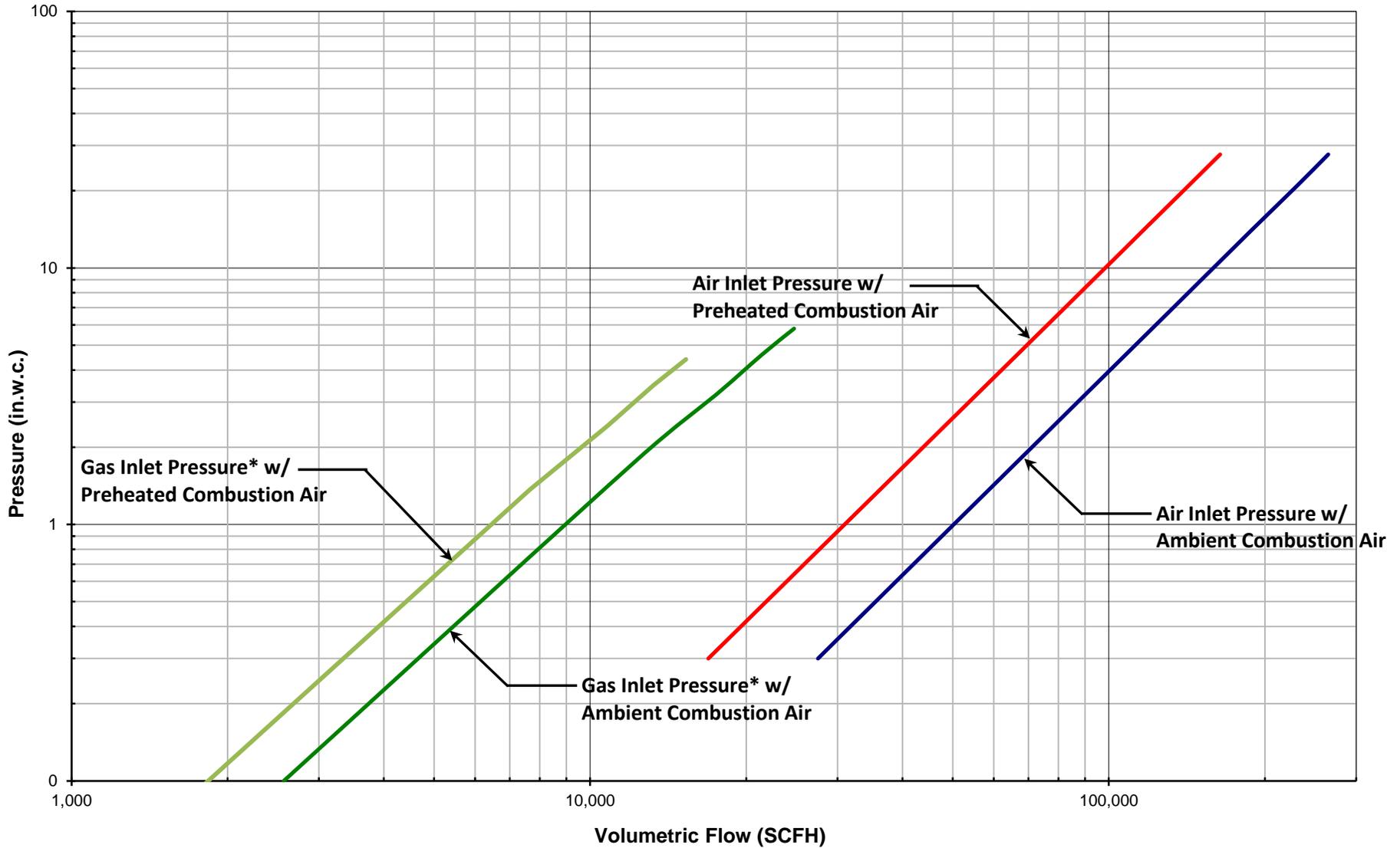
2013-08-21

BBG 1012/2012/3012 Pressure Curves
Natural Gas 1034 BTU/ft³ (HHV Standard) / 10.21 kWh/nm³ (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 1012/2012/3012 Operating and Ignition Window
Natural Gas 1034 BTU/ft³ (HHV Standard) / 10.21 kWh/nm³ (LHV Metric), 0.59 S.G.
and Ambient Combustion Air

