



## Burner Capacity Information, BBG 1006/2006

### NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
<b>Capacity</b> (at 10% Excess Air)	(BTU/hr)	<b>650,000</b>	<b>3,140,000</b>	<b>4,330,000</b>	<b>5,260,000</b>	<b>6,130,000</b>
	(kW)	<b>170</b>	<b>830</b>	<b>1,150</b>	<b>1,390</b>	<b>1,620</b>
Air Capacity	(scfh)	6,750	32,500	44,825	54,500	63,500
	(nm <sup>3</sup> /hr)	181	871	1,201	1,460	1,701
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	2.7	5.6	8.6	11.6
	(mbar)	0.2	6.7	13.9	21.3	28.8
Flame Length (at 10% Excess Air)	(in)	36	72	84	90	96
	(mm)	910	1830	2130	2290	2440
Flame Diameter (at 10% Excess Air)	(in)	18	20	20	24	24
	(mm)	460	510	510	610	610
Maximum Operating Excess	(Air)	200%	400%	400%	400%	400%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	975	4,500	N/R	N/R	N/R
	(nm <sup>3</sup> /hr)	26.1	120.5	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	425	750	N/R	N/R	N/R
	(nm <sup>3</sup> /hr)	11.4	20.1	N/R	N/R	N/R

## Burner Capacity Information, BBG 3006

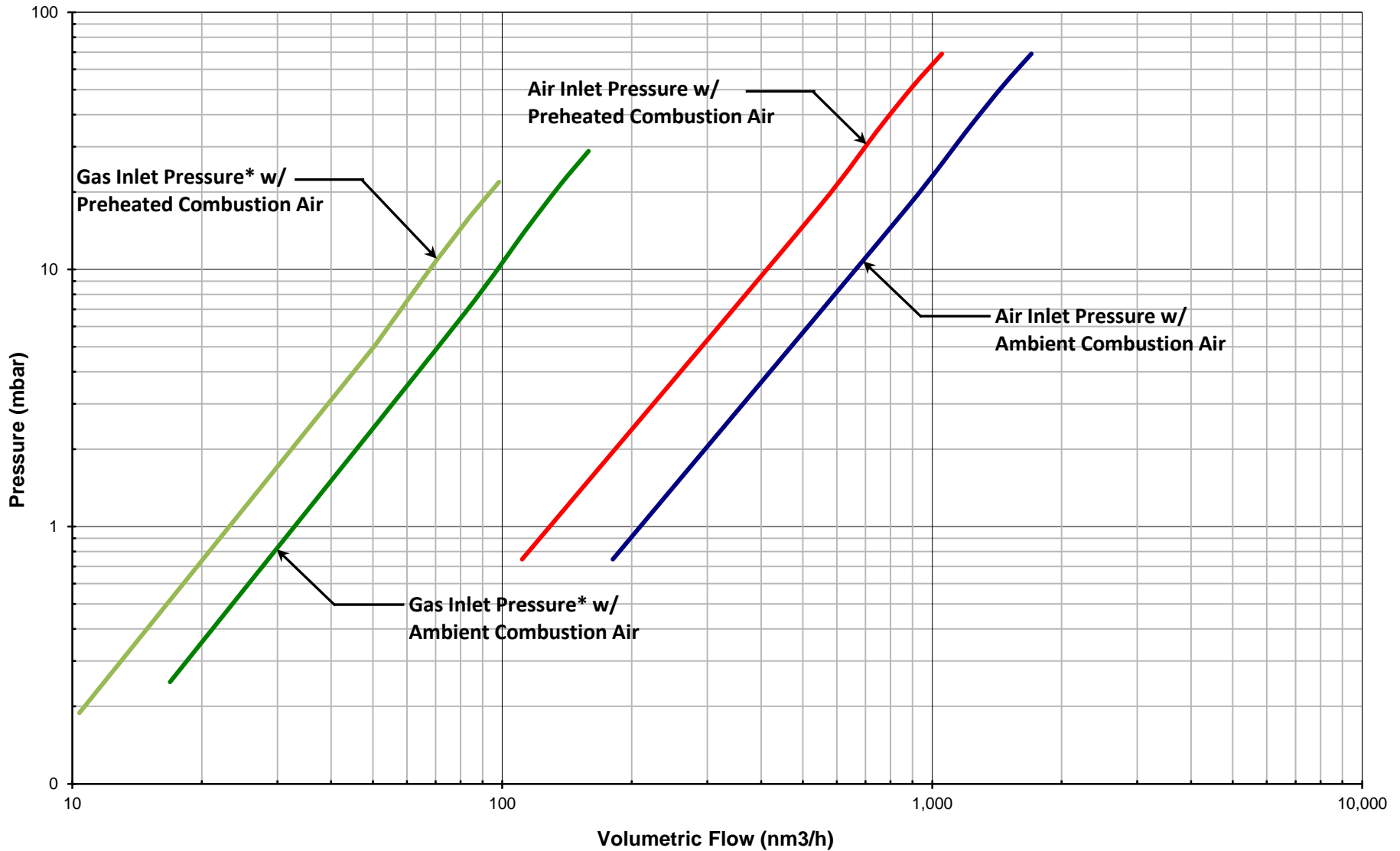
### NATURAL GAS, 900°F/482°C PREHEATED COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
<b>Capacity</b> (at 10% Excess Air)	(BTU/hr)	<b>400,000</b>	<b>1,950,000</b>	<b>2,680,000</b>	<b>3,250,000</b>	<b>3,800,000</b>
	(kW)	<b>110</b>	<b>520</b>	<b>710</b>	<b>860</b>	<b>1,010</b>
Air Capacity	(scfh)	4,152	20,225	27,750	33,715	39,325
	(nm <sup>3</sup> /hr)	111	542	743	903	1,053
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	2.0	4.2	6.5	8.8
	(mbar)	0.2	5.1	10.5	16.1	21.9
Flame Length (at 10% Excess Air)	(in)	25	30	35	45	55
	(mm)	640	760	890	1140	1400
Flame Diameter (at 10% Excess Air)	(in)	15	20	20	20	25
	(mm)	380	510	510	510	640
Maximum Operating Excess	(Air)	150%	300%	300%	300%	300%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	600	2,950	N/R	N/R	N/R
	(nm <sup>3</sup> /hr)	16.1	79.0	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	185	525	N/R	N/R	N/R
	(nm <sup>3</sup> /hr)	5.0	14.1	N/R	N/R	N/R

#### NOTES:

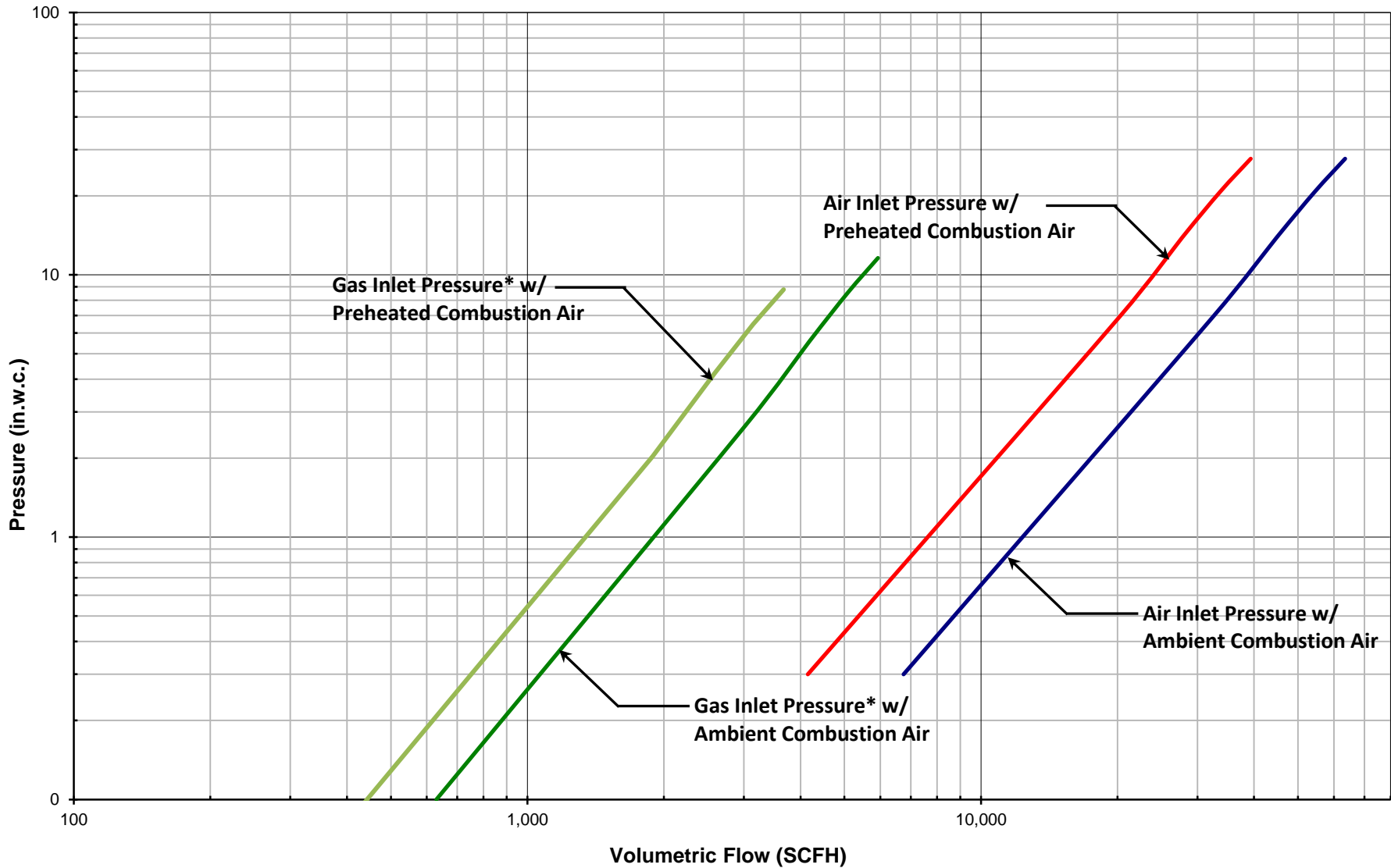
- Capacities based on Natural Gas with HHV of 1034 BTU/ft<sup>3</sup> (Standard), and LHV of 10.21 kWh/nm<sup>3</sup> (Metric), 0.59 S.G., and a stoichiometric ratio of 9.74:1 with burner firing into chamber under no pressure at 10% excess air.
- Air and fuel flows based on STP operating conditions at 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 1006/2006/3006 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

**BBG 1006/2006/3006 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



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**BBG 1006/2006/3006 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

