



**BBG BETA BURNER
GAS SERIES**

NATURAL GAS OPERATION

BBG 1000 AND 2000 SERIES		BURNER MODEL				
SPECIFICATIONS		xx04	xx06	xx08	xx10	xx12
Capacity	(MMBTU/hr)	3.1	6.1	12	19	26
	(kW)	820	1,610	3,170	5,050	6,770
Air Capacity	(scfh)	32,000	63,500	124,500	198,000	265,000
	(nm ³ /hr)	857	1,701	3,335	5,304	7,099
Air Inlet Pressure	(in. w.c.)	27.7	27.7	27.7	27.7	27.7
	(mbar)	68.9	68.9	68.9	68.9	68.9
Gas Inlet Pressure	(in. w.c.)	1.5	11.6	12.0	3.7	5.8
	(mbar)	3.7	28.9	29.9	9.2	14.4
Flame Length	(ft)	5.8	8.0	10.0	12.0	14.0
	(m)	1.8	2.4	3.0	3.7	4.3
Flame Diameter	(ft)	1.5	2.0	3.0	4.0	4.0
	(m)	0.5	0.6	0.9	1.2	1.2

BBG 1000 AND 2000 SERIES		BURNER MODEL				
SPECIFICATIONS		xx14	xx18	xx20	xx24	
Capacity	(MMBTU/hr)	38	65	87	123	
	(kW)	10,130	17,110	23,010	32,530	
Air Capacity	(scfh)	397,000	670,000	898,025	1,275,000	
	(nm ³ /hr)	10,635	17,948	24,056	34,155	
Air Inlet Pressure	(in. w.c.)	27.7	27.7	27.7	27.7	
	(mbar)	68.9	68.9	68.9	68.9	
Gas Inlet Pressure	(in. w.c.)	1.5	11.8	2.2	2.9	
	(mbar)	3.7	29.4	5.5	7.1	
Flame Length	(ft)	15.0	17.0	18.0	25.0	
	(m)	4.6	5.2	5.5	7.6	
Flame Diameter	(ft)	4.5	5.0	4.5	5.0	
	(m)	1.4	1.5	1.4	1.5	

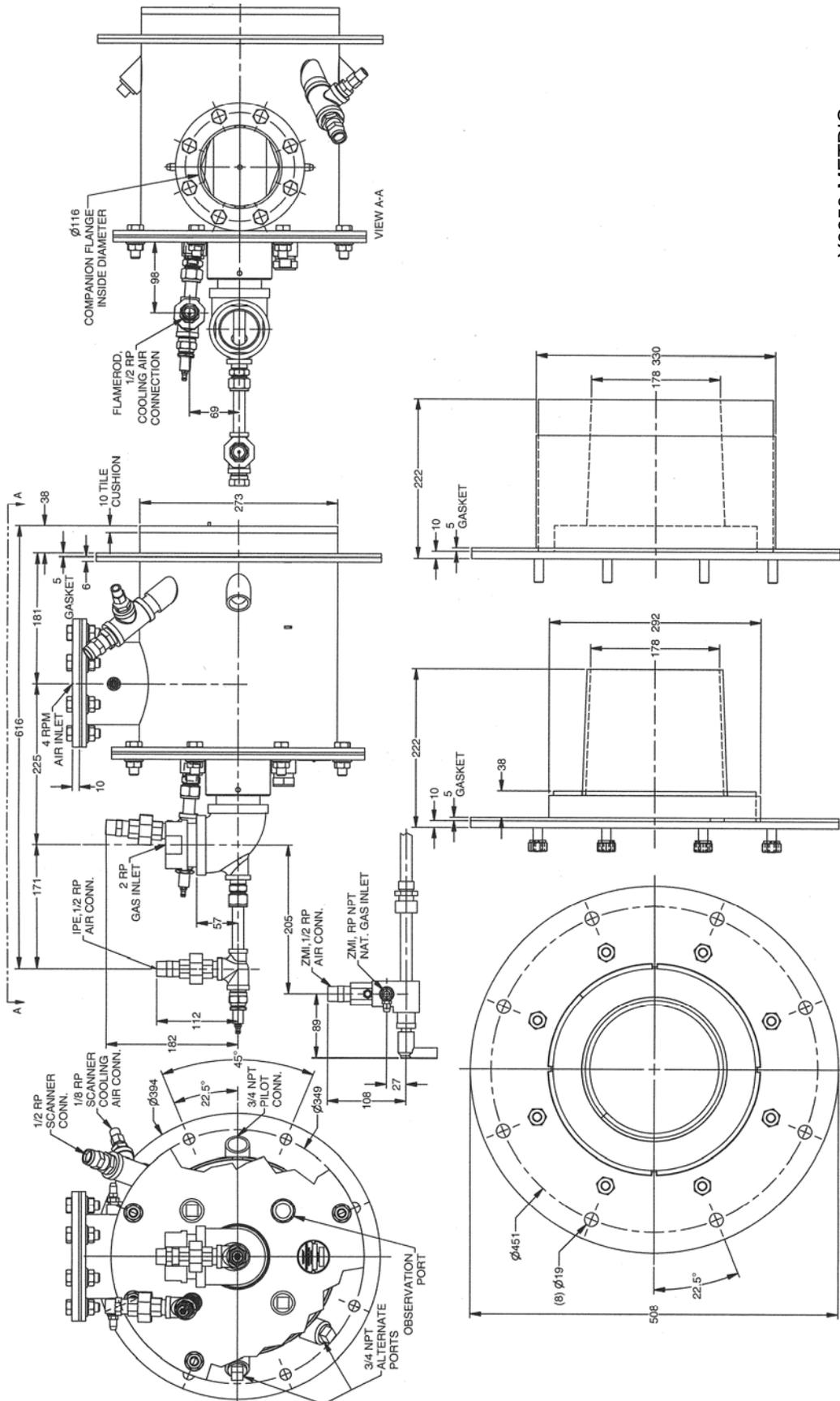
NOTES:

- 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.
- Burner is suitable for use on gaseous fuels other than Natural Gas and with combustion air other than ambient temperature, consult Hauck.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.

BBG BETA BURNER BBG_04

METRIC DIMENSIONS

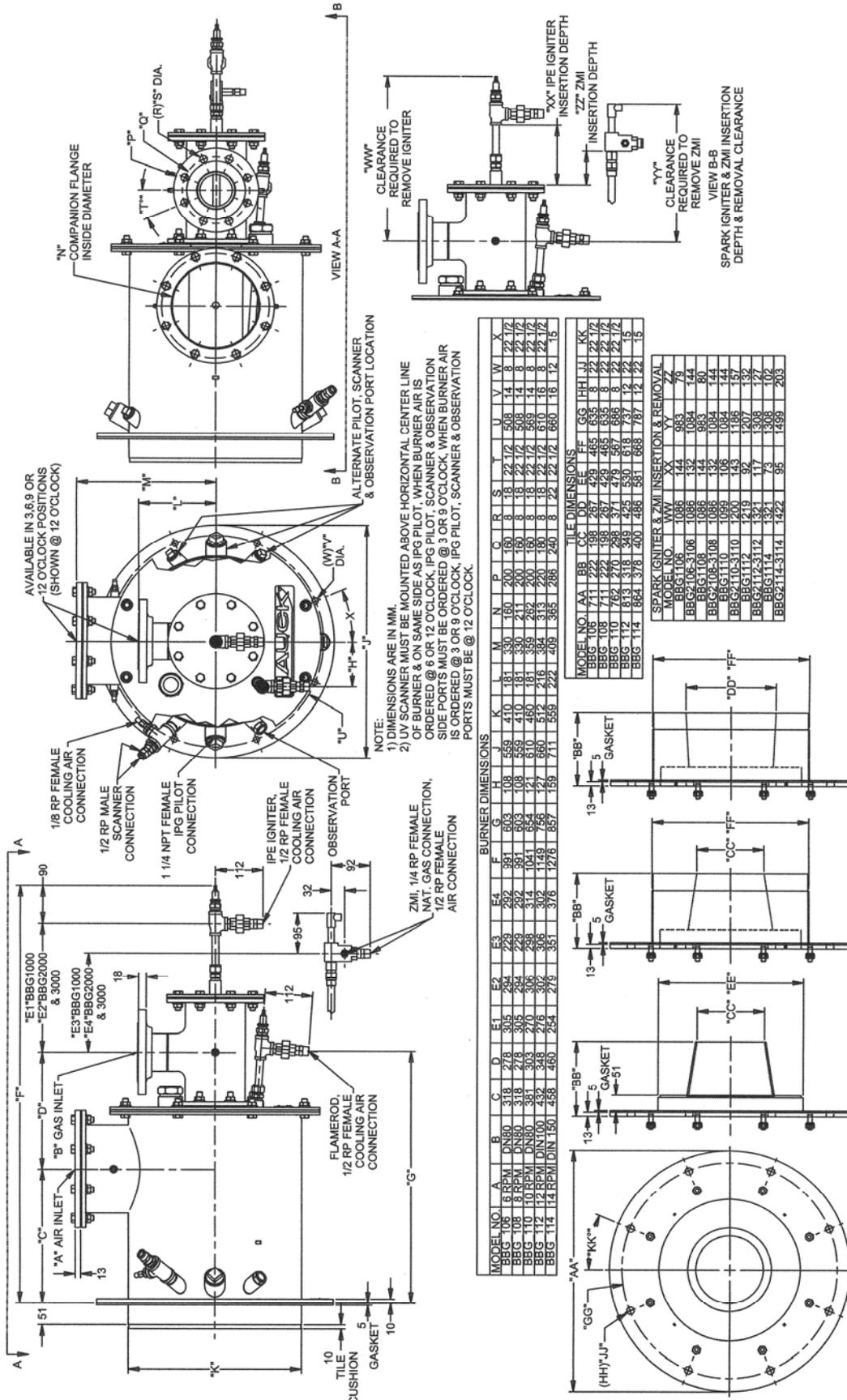


Y8958 METRIC
(NOT TO SCALE)

- NOTE:
- 1) DIMENSIONS ARE IN MM.
 - 2) UV SCANNER MUST BE MOUNTED ABOVE HORIZONTAL CENTER LINE OF BURNER ON SAME SIDE AS IPG PILOT.

BBG BETA BURNER BBG_06 THROUGH_14

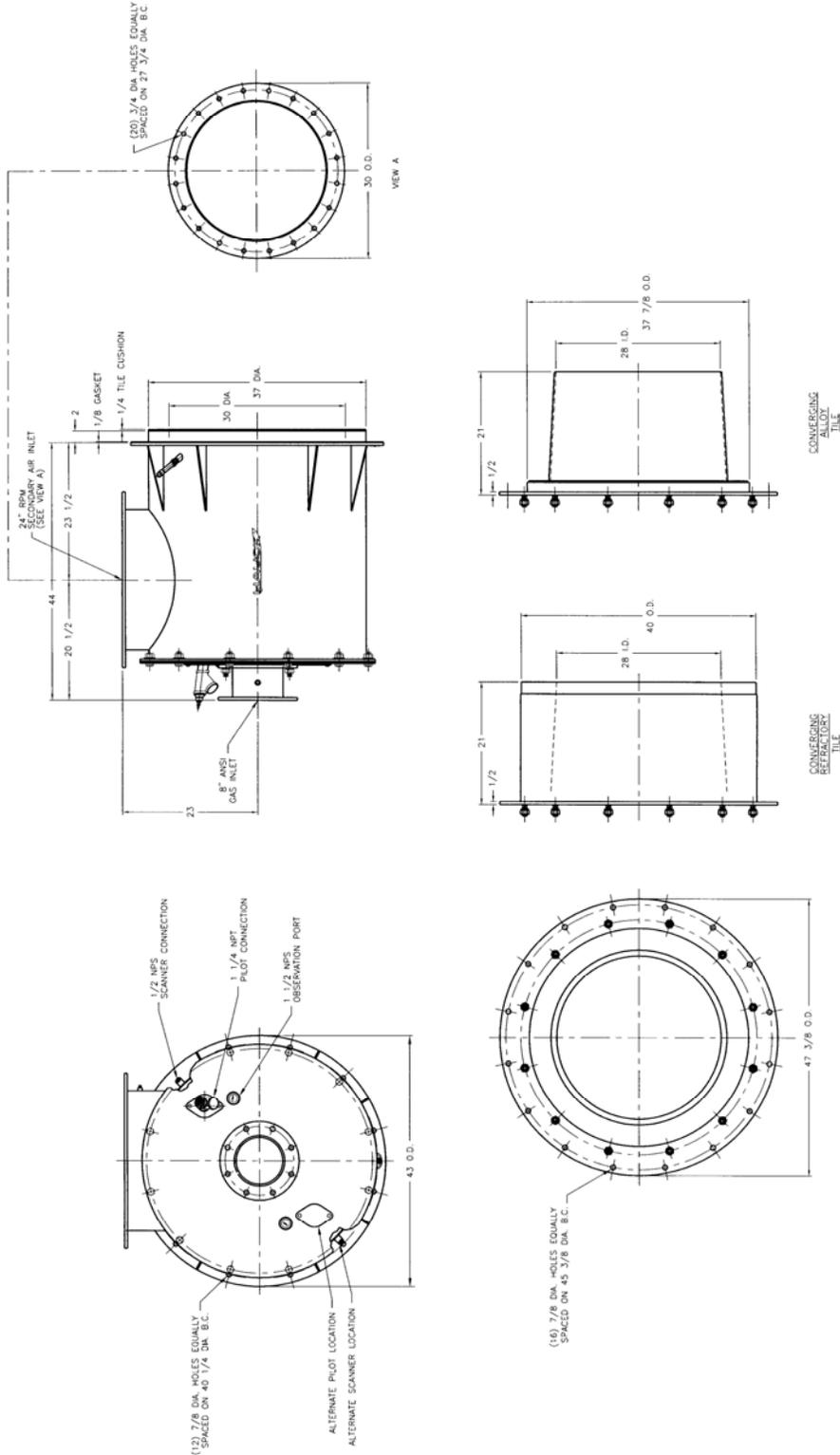
METRIC DIMENSIONS



Y8895 METRIC
(NOT TO SCALE)



BBG BETA BURNER – PILOT IGNITION
BBG _124



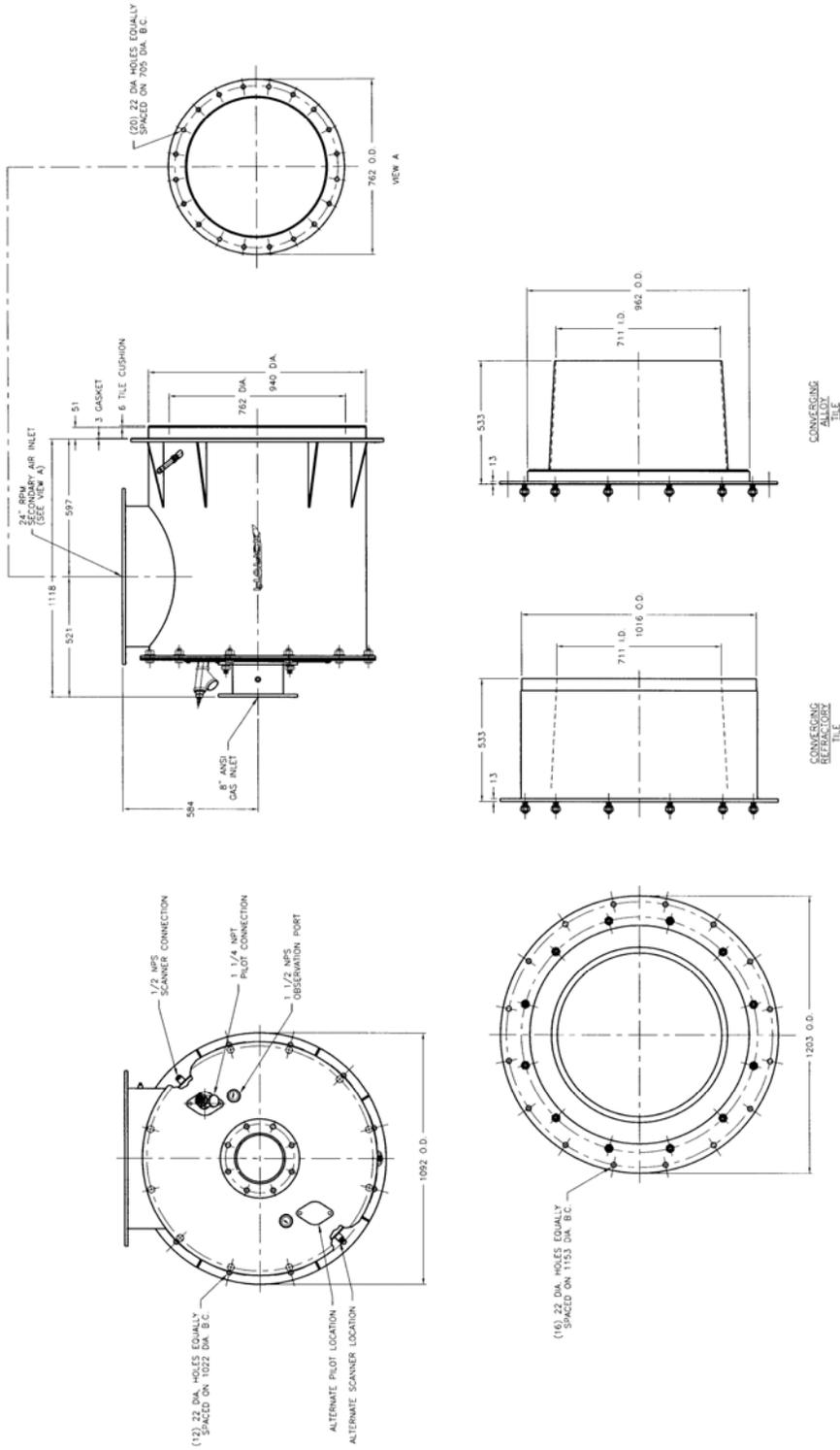
Y6872
(NOT TO SCALE)

- NOTES:
1. DIMENSIONS ARE IN INCHES.
 2. PILOT AND SCANNER MUST BE LOCATED ON SAME SIDE OF BURNER AND ABOVE HORIZONTAL CENTER LINE OF BURNER.

(See Reverse Side For Metric Dimensions)

METRIC DIMENSIONS

BBG BETA BURNERS – PILOT IGNITION BBG _124



Y6872 METRIC
(NOT TO SCALE)

- NOTES:
1. DIMENSIONS ARE IN MM.
 2. PILOT AND SCANNER MUST BE LOCATED ON SAME SIDE OF BURNER AND ABOVE HORIZONTAL CENTER LINE OF BURNER.



BBG BETA BURNER GAS SERIES

Burner Capacity Information, BBG 1004/2004

NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	320,000	1,550,000	2,200,000	2,690,000	3,090,000
	(kW)	80	410	580	710	820
Air Capacity	(scfh)	3,320	16,100	22,800	27,900	32,000
	(nm ³ /hr)	89	431	611	747	857
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	0.5	0.9	1.3	1.5
	(mbar)	0.1	1.2	2.2	3.1	3.7
Flame Length (at 10% Excess Air)	(in)	30	40	55	65	70
	(mm)	760	1020	1400	1650	1780
Flame Diameter (at 10% Excess Air)	(in)	10	15	15	20	20
	(mm)	250	380	380	510	510
Maximum Operating Excess	(Air)	100%	400%	600%	600%	600%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	450	2,250	N/R	N/R	N/R
	(nm ³ /hr)	12.1	60.3	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	175	425	N/R	N/R	N/R
	(nm ³ /hr)	4.7	11.4	N/R	N/R	N/R

Burner Capacity Information, BBG 3004

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

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	200,000	960,000	1,400,000	1,710,000	1,980,000
	(kW)	50	250	370	450	520
Air Capacity	(scfh)	2,055	9,975	14,500	17,750	20,525
	(nm ³ /hr)	55	267	388	475	550
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.)	0.0	0.4	0.7	0.9	1.1
	(mbar)	0.1	0.9	1.7	2.4	2.8
Flame Length (at 10% Excess Air)	(in)	25	30	35	35	40
	(mm)	640	760	890	890	1020
Flame Diameter (at 10% Excess Air)	(in)	10	10	15	15	15
	(mm)	250	250	380	380	380
Maximum Operating Excess	(Air)	100%	350%	500%	500%	500%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	275	725	1,450	N/R	N/R
	(nm ³ /hr)	7.4	19.4	38.8	N/R	N/R
Minimum Ignition Gas	(scfh)	110	175	275	N/R	N/R
	(nm ³ /hr)	2.9	4.7	7.4	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) IPG5411 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.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



BBG BETA BURNER GAS SERIES

Burner Capacity Information, BBG 1006/2006

NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	650,000	3,140,000	4,330,000	5,260,000	6,130,000
	(kW)	170	830	1,150	1,390	1,620
Air Capacity	(scfh)	6,750	32,500	44,825	54,500	63,500
	(nm ³ /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 ³ /hr)	26.1	120.5	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	425	750	N/R	N/R	N/R
	(nm ³ /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				
Capacity (at 10% Excess Air)	(BTU/hr)	400,000	1,950,000	2,680,000	3,250,000	3,800,000
	(kW)	110	520	710	860	1,010
Air Capacity	(scfh)	4,152	20,225	27,750	33,715	39,325
	(nm ³ /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 ³ /hr)	16.1	79.0	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	185	525	N/R	N/R	N/R
	(nm ³ /hr)	5.0	14.1	N/R	N/R	N/R

NOTES:

1. 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.
2. Air and fuel flows based on STP operating conditions at sea level and industry standard air and gas piping practices.
3. Gas inlet pressure given for reference only and should not be used for measuring fuel flow to the burner.
4. Flame lengths measured from end of the combustion tile.
5. Flame detection via UV scanner or flame rod (1000 series only).
6. 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.
7. Burner is suitable for use on gaseous fuels other than Natural Gas and with combustion air other than ambient temperature, consult Hauck.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



**BBG BETA BURNER
GAS SERIES**
Burner Capacity Information, BBG 1008/2008
NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	1,211,000	5,991,000	8,507,000	10,486,000	12,015,000
	(kW)	320	1,580	2,250	2,770	3,180
Air Capacity	(scfh)	12,550	62,075	88,150	108,650	124,500
	(nm ³ /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 ³ /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 ³ /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				
Capacity (at 10% Excess Air)	(BTU/hr)	750,000	3,708,000	5,269,000	6,493,000	7,438,000
	(kW)	200	980	1,390	1,720	1,970
Air Capacity	(scfh)	7,775	38,425	54,600	67,275	77,075
	(nm ³ /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 ³ /hr)	29.5	147.3	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	250	800	N/R	N/R	N/R
	(nm ³ /hr)	6.7	21.4	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 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.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



BBG BETA BURNER GAS SERIES

Burner Capacity Information, BBG 1010/2010

NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	2,220,000	9,460,000	13,220,000	16,310,000	19,110,000
	(kW)	590	2,500	3,500	4,310	5,050
Air Capacity	(scfh)	23,000	98,000	137,000	169,000	198,000
	(nm ³ /hr)	616	2,625	3,670	4,527	5,304
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	1.2	2.2	3.0	3.7
	(mbar)	0.2	3.1	5.3	7.4	9.3
Flame Length (at 10% Excess Air)	(in)	72	108	120	132	144
	(mm)	1830	2740	3050	3350	3660
Flame Diameter (at 10% Excess Air)	(in)	36	42	48	48	48
	(mm)	910	1070	1220	1220	1220
Maximum Operating Excess	(Air)	300%	500%	500%	600%	600%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	3,250	14,250	N/R	N/R	N/R
	(nm ³ /hr)	87.1	381.7	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	600	1,700	N/R	N/R	N/R
	(nm ³ /hr)	16.1	45.5	N/R	N/R	N/R

Burner Capacity Information, BBG 3010

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

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	1,370,000	5,850,000	8,170,000	10,090,000	11,800,000
	(kW)	360	1,550	2,160	2,670	3,120
Air Capacity	(scfh)	14,205	60,575	84,650	104,600	122,315
	(nm ³ /hr)	381	1,623	2,268	2,802	3,277
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	0.9	1.6	2.3	2.8
	(mbar)	0.2	2.3	4.1	5.6	7.1
Flame Length (at 10% Excess Air)	(in)	60	84	90	96	108
	(mm)	1520	2130	2290	2440	2740
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%	500%	500%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	2,050	8,800	N/R	N/R	N/R
	(nm ³ /hr)	54.9	235.7	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	450	1,300	N/R	N/R	N/R
	(nm ³ /hr)	12.1	34.8	N/R	N/R	N/R

NOTES:

1. 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.
2. Air and fuel flows based on STP operating conditions at sea level and industry standard air and gas piping practices.
3. Gas inlet pressure given for reference only and should not be used for measuring fuel flow to the burner.
4. Flame lengths measured from end of the combustion tile.
5. Flame detection via UV scanner or flame rod (1000 series only).
6. 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.
7. Burner is suitable for use on gaseous fuels other than Natural Gas and with combustion air other than ambient temperature, consult Hauck.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



**BBG BETA BURNER
GAS SERIES**

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.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



**BBG BETA BURNER
GAS SERIES**

Burner Capacity Information, BBG 1114/2114

NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	3,860,000	19,110,000	27,000,000	33,200,000	38,300,000
	(kW)	1,020	5,050	7,140	8,780	10,130
Air Capacity	(scfh)	40,000	198,000	280,000	343,500	397,000
	(nm ³ /hr)	1,072	5,304	7,501	9,202	10,635
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.)	0.3	0.8	1.1	1.3	1.5
	(mbar)	0.6	2.0	2.7	3.2	3.7
Flame Length (at 10% Excess Air)	(in)	84	120	154	168	180
	(mm)	2130	3050	3910	4270	4570
Flame Diameter (at 10% Excess Air)	(in)	36	48	48	54	54
	(mm)	910	1220	1220	1370	1370
Maximum Operating Excess	(Air)	200%	400%	400%	500%	500%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	5,500	27,500	N/R	N/R	N/R
	(nm ³ /hr)	147.3	736.7	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	1,400	4,100	N/R	N/R	N/R
	(nm ³ /hr)	37.5	109.8	N/R	N/R	N/R

Burner Capacity Information, BBG 3114

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

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	2,490,000	12,060,000	17,100,000	20,900,000	24,200,000
	(kW)	660	3,190	4,520	5,530	6,400
Air Capacity	(scfh)	25,750	125,000	177,000	216,750	250,375
	(nm ³ /hr)	690	3,349	4,741	5,806	6,707
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.)	0.2	0.6	0.8	1.0	1.1
	(mbar)	0.5	1.5	2.1	2.5	2.8
Flame Length (at 10% Excess Air)	(in)	72	96	108	120	132
	(mm)	1830	2440	2740	3050	3350
Flame Diameter (at 10% Excess Air)	(in)	36	48	48	54	54
	(mm)	910	1220	1220	1370	1370
Maximum Operating Excess	(Air)	150%	300%	300%	400%	400%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	3,500	18,000	N/R	N/R	N/R
	(nm ³ /hr)	93.8	482.2	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	1,100	3,000	N/R	N/R	N/R
	(nm ³ /hr)	29.5	80.4	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 Hauck IPG5413 gas pilot, metered air and fuel flows and 5kV/15mA spark ignition transformer; for limits listed as N/R ignition is Not Recommended at this capacity and under other conditions consult Hauck.
- Burner is suitable for use on gaseous fuels other than Natural Gas and with combustion air other than ambient temperature, consult Hauck.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



**BBG BETA BURNER
GAS SERIES
Burner Capacity Information, BBG 1118/2118
NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION**

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	6,660,000	32,330,000	45,800,000	56,000,000	64,700,000
	(kW)	1,760	8,550	12,110	14,810	17,110
Air Capacity	(scfh)	69,000	335,000	474,500	580,000	670,000
	(nm ³ /hr)	1,848	8,974	12,711	15,537	17,948
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.)	0.3	3.7	6.6	9.3	11.8
	(mbar)	0.6	9.2	16.4	23.1	29.4
Flame Length (at 10% Excess Air)	(in)	72	168	180	192	204
	(mm)	1830	4270	4570	4880	5180
Flame Diameter (at 10% Excess Air)	(in)	36	48	48	54	60
	(mm)	910	1220	1220	1370	1520
Maximum Operating Excess	(Air)	250%	400%	500%	600%	600%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	10,000	45,000	N/R	N/R	N/R
	(nm ³ /hr)	267.9	1,205.5	NR	N/R	N/R
Minimum Ignition Gas	(scfh)	2,100	6,900	N/R	N/R	N/R
	(nm ³ /hr)	56.3	184.8	NR	N/R	N/R

Burner Capacity Information, BBG 3118

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

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	3,940,000	19,070,000	27,000,000	33,100,000	38,300,000
	(kW)	1,040	5,040	7,140	8,750	10,130
Air Capacity	(scfh)	40,800	197,600	280,000	343,000	396,400
	(nm ³ /hr)	1,093	5,293	7,501	9,188	10,619
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.)	0.2	2.8	5.0	7.1	9.0
	(mbar)	0.5	6.9	12.5	17.6	22.3
Flame Length (at 10% Excess Air)	(in)	72	132	144	156	168
	(mm)	1830	3350	3660	3960	4270
Flame Diameter (at 10% Excess Air)	(in)	36	48	48	48	54
	(mm)	910	1220	1220	1220	1370
Maximum Operating Excess	(Air)	200%	300%	400%	500%	500%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	5,500	27,500	N/R	N/R	N/R
	(nm ³ /hr)	147.3	736.7	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	1,400	5,000	N/R	N/R	N/R
	(nm ³ /hr)	37.5	133.9	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 Hauck IPG5413 gas pilot, metered air and fuel flows and 5kV/15mA spark ignition transformer; for limits listed as N/R ignition is Not Recommended at this capacity and under other conditions consult Hauck.
- Burner is suitable for use on gaseous fuels other than Natural Gas and with combustion air other than ambient temperature, consult Hauck.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



BBG BETA BURNER GAS SERIES

Burner Capacity Information, BBG 1120/2120

NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	9,000,000	43,330,000	61,300,000	75,000,000	86,700,000
	(kW)	2,380	11,460	16,210	19,840	22,930
Air Capacity	(scfh)	93,288	449,013	635,000	776,780	898,025
	(nm ³ /hr)	2,499	12,028	17,010	20,808	24,056
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	0.6	1.1	1.7	2.2
	(mbar)	0.1	1.4	2.7	4.1	5.5
Flame Length (at 10% Excess Air)	(in)	48	168	192	192	216
	(mm)	1220	4270	4880	4880	5490
Flame Diameter (at 10% Excess Air)	(in)	24	48	48	54	54
	(mm)	610	1220	1220	1370	1370
Maximum Operating Excess	(Air)	250%	500%	600%	700%	800%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	11,268	54,235	N/R	N/R	N/R
	(nm ³ /hr)	301.8	1,452.9	NR	N/R	N/R
Minimum Ignition Gas	(scfh)	2,737	7,683	N/R	N/R	N/R
	(nm ³ /hr)	73.3	205.8	NR	N/R	N/R

Burner Capacity Information, BBG 3120

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

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	5,570,000	26,830,000	37,900,000	46,400,000	53,700,000
	(kW)	1,470	7,100	10,020	12,270	14,200
Air Capacity	(scfh)	57,753	277,975	393,116	480,889	555,949
	(nm ³ /hr)	1,547	7,446	10,531	12,882	14,893
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.)	0.0	0.4	0.8	1.3	1.7
	(mbar)	0.1	1.0	2.1	3.1	4.2
Flame Length (at 10% Excess Air)	(in)	72	132	144	156	168
	(mm)	1830	3350	3660	3960	4270
Flame Diameter (at 10% Excess Air)	(in)	36	48	48	48	54
	(mm)	910	1220	1220	1220	1370
Maximum Operating Excess	(Air)	325%	463%	602%	741%	741%
	(Fuel)	30%	30%	30%	30%	30%
Maximum Ignition Gas	(scfh)	5,500	27,500	N/R	N/R	N/R
	(nm ³ /hr)	147.3	736.7	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	1,400	5,000	N/R	N/R	N/R
	(nm ³ /hr)	37.5	133.9	N/R	N/R	N/R

NOTES:

1. 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.
2. Air and fuel flows based on STP operating conditions at sea level and industry standard air and gas piping practices.
3. Gas inlet pressure given for reference only and should not be used for measuring fuel flow to the burner.
4. Flame lengths measured from end of the combustion tile.
5. Flame detection via UV scanner.
6. Ignition limits are established with Hauck IPG5413 gas pilot, metered air and fuel flows and 5kV/15mA spark ignition transformer; for limits listed as N/R ignition is Not Recommended at this capacity and under other conditions consult Hauck.
7. Burner is suitable for use on gaseous fuels other than Natural Gas and with combustion air other than ambient temperature, consult Hauck.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



BBG BETA BURNER GAS SERIES

Burner Capacity Information, BBG 1124/2124

NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	12,550,000	61,770,000	87,300,000	106,200,000	123,000,000
	(kW)	3,320	16,340	23,090	28,090	32,530
Air Capacity	(scfh)	130,000	640,000	905,000	1,100,000	1,275,000
	(nm ³ /hr)	3,482	17,144	24,243	29,467	34,155
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.)	0.3	1.4	2.0	2.5	2.9
	(mbar)	0.6	3.4	4.9	6.1	7.2
Flame Length (at 10% Excess Air)	(in)	72	250	275	285	300
	(mm)	1830	6350	6990	7240	7620
Flame Diameter (at 10% Excess Air)	(in)	36	48	54	60	60
	(mm)	910	1220	1370	1520	1520
Maximum Operating Excess	(Air)	100%	400%	600%	600%	600%
	(Fuel)	15%	15%	15%	15%	15%
Maximum Ignition Gas	(scfh)	15,000	70,000	N/R	N/R	N/R
	(nm ³ /hr)	401.8	1,875.2	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	6,800	13,500	N/R	N/R	N/R
	(nm ³ /hr)	182.2	361.6	N/R	N/R	N/R

Burner Capacity Information, BBG 3124

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

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 10% Excess Air)	(BTU/hr)	7,890,000	37,350,000	52,800,000	64,800,000	74,800,000
	(kW)	2,090	9,880	13,970	17,140	19,780
Air Capacity	(scfh)	81,720	387,000	547,600	671,100	775,200
	(nm ³ /hr)	2,189	10,367	14,669	17,977	20,766
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.)	0.2	1.0	1.5	1.9	2.2
	(mbar)	0.5	2.6	3.7	4.7	5.5
Flame Length (at 10% Excess Air)	(in)	72	96	150	200	250
	(mm)	1830	2440	3810	5080	6350
Flame Diameter (at 10% Excess Air)	(in)	36	48	48	60	60
	(mm)	910	1220	1220	1520	1520
Maximum Operating Excess	(Air)	100%	300%	500%	500%	500%
	(Fuel)	15%	15%	15%	15%	15%
Maximum Ignition Gas	(scfh)	9,750	40,000	N/R	N/R	N/R
	(nm ³ /hr)	261.2	1,071.5	N/R	N/R	N/R
Minimum Ignition Gas	(scfh)	4,500	10,000	N/R	N/R	N/R
	(nm ³ /hr)	120.5	267.9	N/R	N/R	N/R

NOTES:

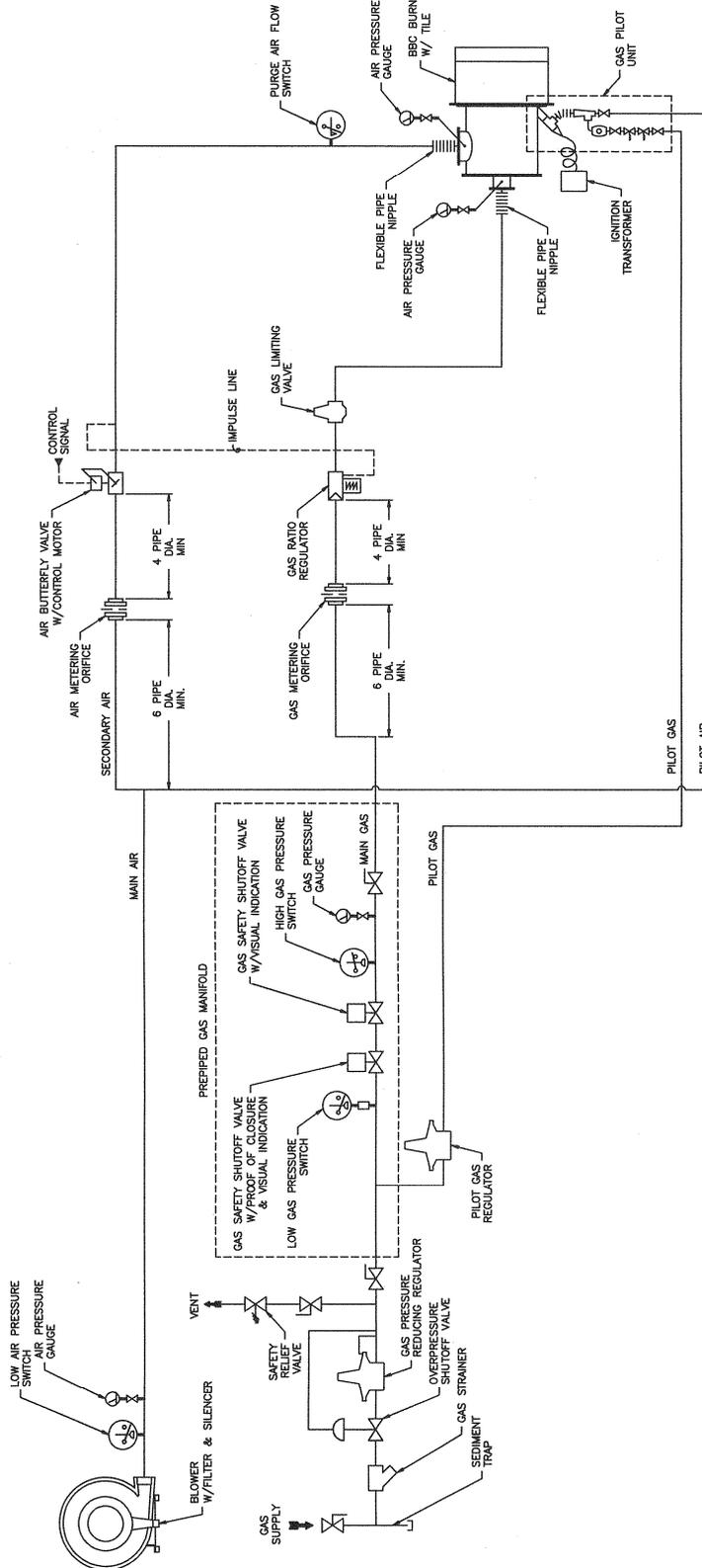
- Capacities based on Natural Gas with HHV of 1034 BTU/ft³ (Standard), and LHV of 10.21 kWh/nm³ (Metric), 0.59 S.G., and a stoichiometric ratio of 9.74:1 with burner firing into chamber under no pressure at 10% excess air.
- Air and fuel flows based on STP operating conditions at sea level and industry 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 Hauck 58155 gas pilot, 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.

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



BBG BETA BURNER GAS SERIES

CROSS-CONNECTED RATIO CONTROL
GAS W/PILOT IGNITION



Y7729
(NOT TO SCALE)

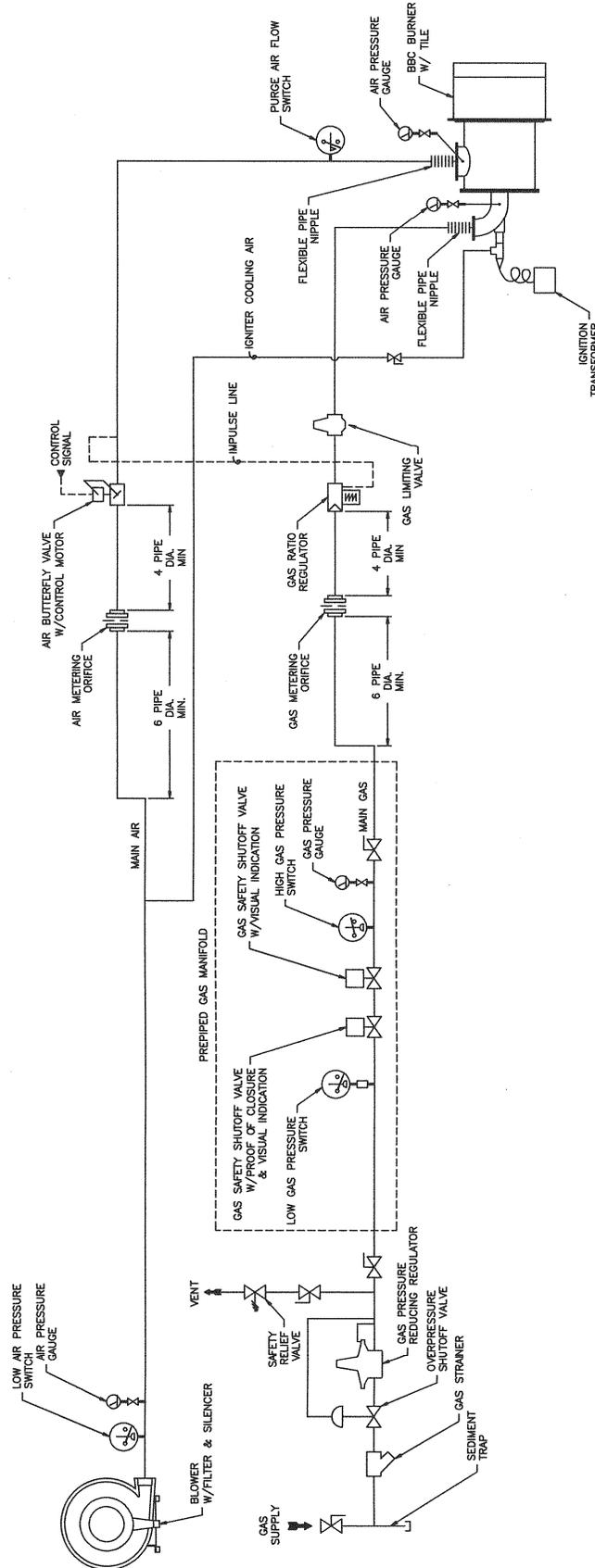
NOTE:
1. PIPING SCHEMATIC SHOWN FOR PILOT IGNITED SINGLE BURNER FIRING GAS USING CROSS-CONNECTED RATIO CONTROL. CONSULT FACTORY FOR MULTIPLE BURNER APPLICATIONS.

(OVER)

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.

BBG BETA BURNER GAS SERIES

CROSS-CONNECTED RATIO CONTROL
GAS W/DIRECT SPARK IGNITION



NOTE:
1. PIPING SCHEMATIC SHOWN FOR DIRECT SPARK IGNITED SINGLE BURNER FIRING GAS USING CROSS-CONNECTED RATIO CONTROL. CONSULT FACTORY FOR MULTIPLE BURNER APPLICATIONS.

Y7823
(NOT TO SCALE)



BBG BETA BURNER ORDERING INFORMATION

	BB	G	2	1	08	F -	CR	S -	LO
Burner Type									
Type G – Gaseous Fuel C – Gaseous and Liquid Fuel GE – Gaseous Fuel for Export CE – Gaseous and Liquid Fuel For Export									
Series 1 – Alloy Baffle 2 – Refractory Baffle 3 – Refractory Baffle With Insulated Body									
Ignition 1 – IPG Pilot (Pilot Sold Separately) 2 – Direct Spark Igniter 3 – ZMI Pilot									
Size 04 06 08 10 12 14 18 24									
Burner Revision									
Tile Assembly CA – Converging Alloy CR – Converging Refractory DR – Diverging Refractory CW – Cast-In-Wall or Customer Supplied									
Flame Supervision F – Flamerod (06-12 Sizes Only) S – Scanner Assembly (Scanner Sold Separately)									
Fuel LO – Low Pressure Oil Atomization HO – High Pressure Oil Atomization (Compressed Air) LP – Liquid Propane									