

## Burner Capacity Information, Hauck NMC 215

NATURAL GAS, AMBIENT COMBUSTION AIR OPERATION, LOW PRESSURE ATOMIZATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
<b>Capacity</b> (at 10% Excess Air)	(BTU/hr)	<b>190,000</b>	<b>440,000</b>	<b>600,000</b>	<b>840,000</b>	<b>1,030,000</b>
	(kW)	<b>50</b>	<b>120</b>	<b>160</b>	<b>220</b>	<b>270</b>
Secondary Air Capacity	(scfh)	1,596	4,200	5,940	8,400	10,320
	(nm <sup>3</sup> /hr)	43	113	159	225	276
Secondary Air Inlet Pressure	(in.w.c.)	1.0	6.9	13.9	27.7	41.6
	(mbar)	2.5	17.2	34.5	68.9	103.4
Primary Air Capacity	(scfh)	325	325	325	325	325
	(nm <sup>3</sup> /hr)	9	9	9	9	9
Primary Air Inlet Pressure	(in.w.c.)	4.0	4.0	4.0	4.0	4.0
	(mbar)	10.0	10.0	10.0	10.0	10.0
Gas Inlet Pressure	(in.w.c.)	1.1	2.6	3.5	4.9	6.0
	(mbar)	2.7	6.3	8.8	12.2	14.9
Flame Length (at 10% Excess Air)	(in)	12	16	24	36	42
	(mm)	300	410	610	910	1070
Flame Diameter (at 10% Excess Air)	(in)	4	6	6	6	8
	(mm)	100	150	150	150	200
Maximum Operating Excess	(Air)	500%	600%	600%	600%	500%
	(Fuel)	30%	30%	30%	30%	30%

## Burner Capacity Information, Hauck NMC-H 215

NATURAL GAS, 800°F/427°C PREHEATED SECONDARY AIR OPERATION, LOW PRESSURE ATOMIZATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
<b>Capacity</b> (at 10% Excess Air)	(BTU/hr)	<b>130,000</b>	<b>290,000</b>	<b>400,000</b>	<b>550,000</b>	<b>670,000</b>
	(kW)	<b>30</b>	<b>80</b>	<b>110</b>	<b>150</b>	<b>180</b>
Secondary Air Capacity	(scfh)	1,351	3,026	4,145	5,727	6,962
	(nm <sup>3</sup> /hr)	36	81	111	153	187
Secondary Air Inlet Pressure	(in.w.c.)	1.0	6.9	13.9	27.7	41.6
	(mbar)	2.5	17.2	34.5	68.9	103.4
Primary Air Capacity	(scfh)	325	325	325	325	325
	(nm <sup>3</sup> /hr)	9	9	9	9	9
Primary Air Inlet Pressure	(in.w.c.)	4.0	4.0	4.0	4.0	4.0
	(mbar)	10.0	10.0	10.0	10.0	10.0
Gas Inlet Pressure	(in.w.c.)	0.8	1.9	2.7	3.7	4.6
	(mbar)	2.0	4.8	6.7	9.3	11.3
Flame Length (at 10% Excess Air)	(in)	9	12	18	27	32
	(mm)	230	300	460	690	800
Flame Diameter (at 10% Excess Air)	(in)	4	5	5	5	7
	(mm)	90	140	140	140	180
Maximum Operating Excess	(Air)	400%	480%	480%	480%	400%
	(Fuel)	30%	30%	30%	30%	30%

**NOTES:**

- Capacities based on Natural Gas with HHV of 1034 BTU/ft<sup>3</sup> (Standard) / LHV of 10.21 kWh/nm<sup>3</sup> (Metric), 0.59 S.G., and a stoichiometric ratio of 9.74:1 at 10% excess air; with burner firing into chamber under no pressure.
- Air and fuel flows based on STP operating conditions at sea level and industry standard air and gas piping practices.
- Fuel inlet pressures 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; for detection limits refer to the Burner Operating and Ignition Window.
- Ignition via IPG5411 gas pilot; for ignition limits refer to the Burner Operating and Ignition Window.
- Burner is suitable for use on gaseous and liquid fuels other than those listed, and with combustion air other than ambient temperature or that listed; for further information consult Hauck.

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## Burner Capacity Information, Hauck NMC 215

### NO. 2 FUEL OIL, AMBIENT COMBUSTION AIR OPERATION, LOW PRESSURE ATOMIZATION

SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 20% Excess Air)	(BTU/hr)	200,000	420,000	570,000	770,000	930,000
	(kW)	50	110	150	200	250
Secondary Air Capacity	(scfh)	1,596	4,200	5,940	8,400	10,320
	(nm <sup>3</sup> /hr)	43	113	159	225	276
Secondary Air Inlet Pressure	(in.w.c.)	1.0	6.9	13.9	27.7	41.6
	(mbar)	2.5	17.2	34.5	68.9	103.4
Primary Air Capacity	(scfh)	858	858	858	858	858
	(nm <sup>3</sup> /hr)	23	23	23	23	23
Primary 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
Fuel Oil Flow(at 20% Excess Air)	(gph)	1.5	3.1	4.1	5.6	6.8
	(lph)	6	12	16	21	26
Flame Length (at 20% Excess Air)	(in)	12	16	24	36	42
	(mm)	300	410	610	910	1070
Flame Diameter (at 20% Excess Air)	(in)	4	6	6	6	8
	(mm)	100	150	150	150	200
Maximum Operating Excess	(Air)	100%	200%	250%	350%	300%
	(Fuel)	30%	30%	30%	30%	30%

## Burner Capacity Information, Hauck NMC-H 215

### NO. 2 FUEL OIL, 800°F/427°C PREHEATED SECONDARY AIR OPERATION, LOW PRESSURE ATOMIZATION

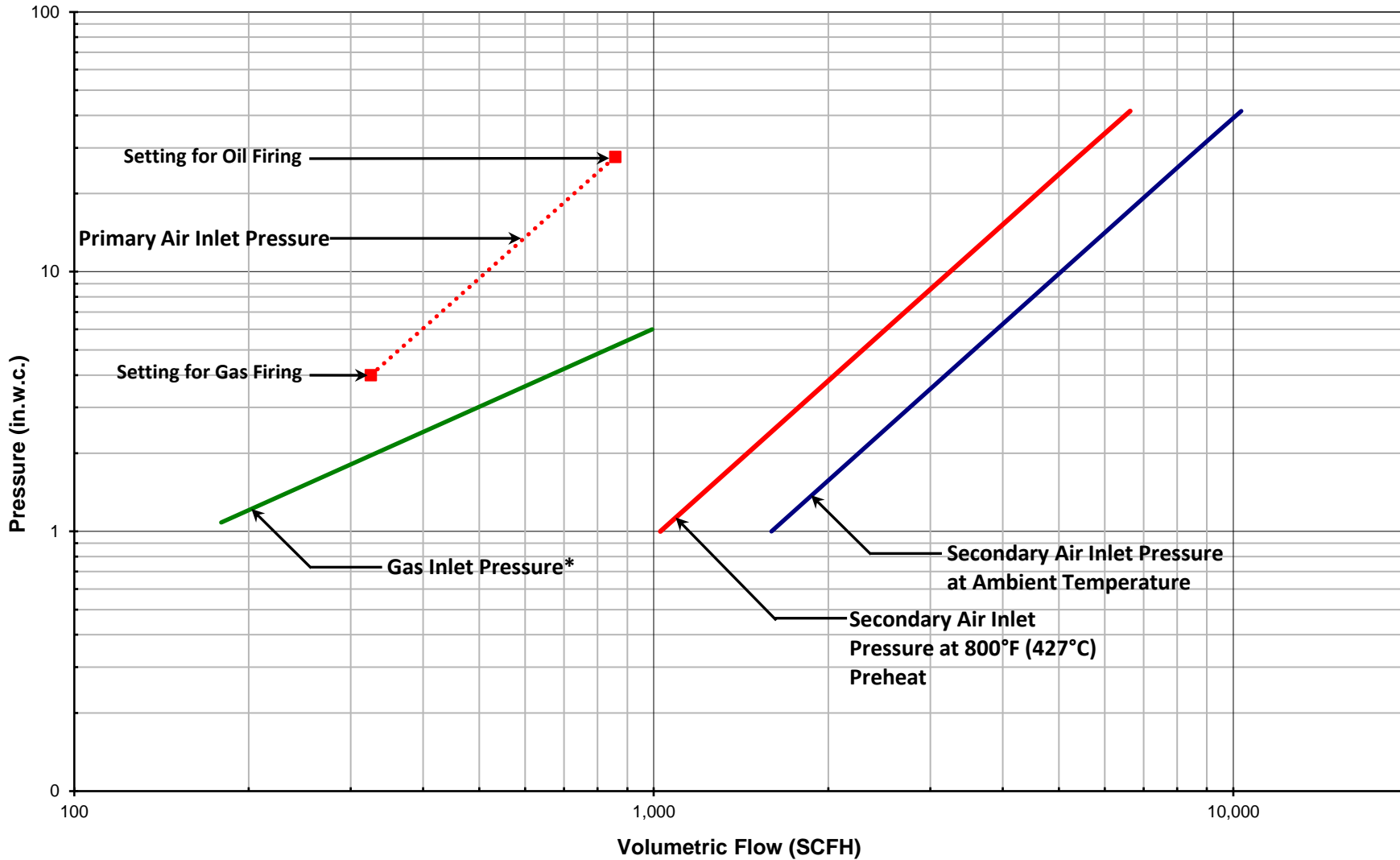
SPECIFICATIONS		OPERATIONAL INFORMATION				
Capacity (at 20% Excess Air)	(BTU/hr)	160,000	300,000	390,000	520,000	620,000
	(kW)	40	80	100	140	160
Secondary Air Capacity	(scfh)	1,026	2,701	3,820	5,402	6,637
	(nm <sup>3</sup> /hr)	27	72	102	145	178
Secondary Air Inlet Pressure	(in.w.c.)	1.0	6.9	13.9	27.7	41.6
	(mbar)	2.5	17.2	34.5	68.9	103.4
Primary Air Capacity	(scfh)	858	858	858	858	858
	(nm <sup>3</sup> /hr)	23	23	23	23	23
Primary 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
Fuel Oil Flow(at 20% Excess Air)	(gph)	1.1	2.1	2.8	3.8	4.5
	(lph)	4	8	11	14	17
Flame Length(at 20% Excess Air)	(in)	9	12	18	27	32
	(mm)	230	300	460	690	800
Flame Diameter(at 20% Excess Air)	(in)	4	5	5	5	7
	(mm)	90	140	140	140	180
Maximum Operating Excess	(Air)	80%	160%	200%	280%	240%
	(Fuel)	30%	30%	30%	30%	30%

**NOTES:**

- Capacities based on No. 2 Fuel Oil with HHV of 138,000 BTU/USgal (Standard) / LHV of 10.3 kWh/liter (Metric), 0.87 S.G., and a stoichiometric ratio of 1380:1 at 20% excess air; with burner firing into chamber under no pressure.
- Air and fuel flows based on STP operating conditions at sea level and industry standard air and gas piping practices.
- Fuel inlet pressures 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; for detection limits refer to the Burner Operating and Ignition Window.
- Ignition via IPG5411 gas pilot; for ignition limits refer to the Burner Operating and Ignition Window.
- Burner is suitable for use on gaseous and liquid fuels other than those listed, and with combustion air other than ambient temperature or that listed; for further information consult Hauck.

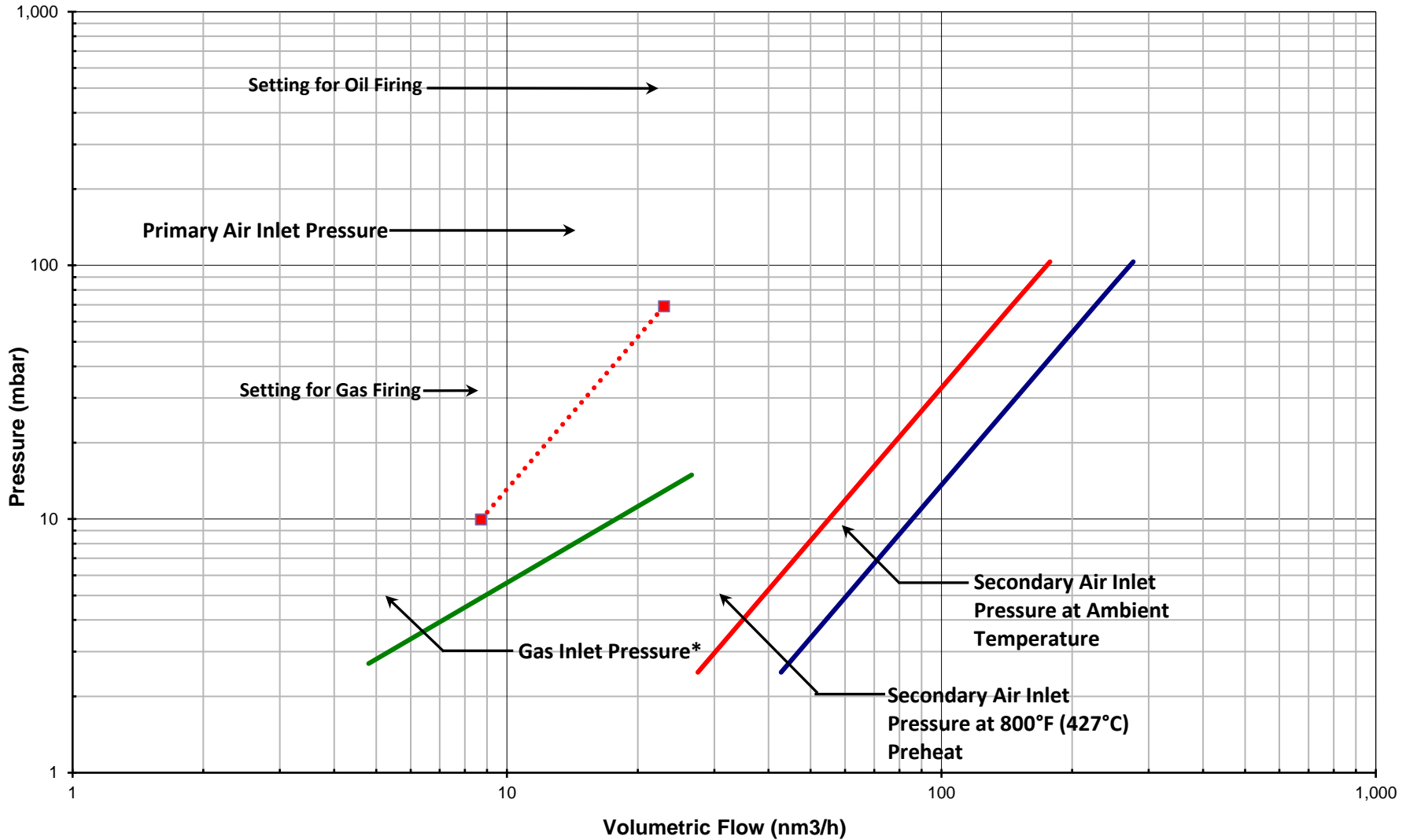
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**NMC/NMC-H 215 Pressure Curves**  
**Natural Gas 1034 BTU/ft<sup>3</sup> (HHV Standard) / 10.21 kWh/nm<sup>3</sup> (LHV Metric), 0.59 S.G.**  
**and Ambient and Preheated Combustion Air**



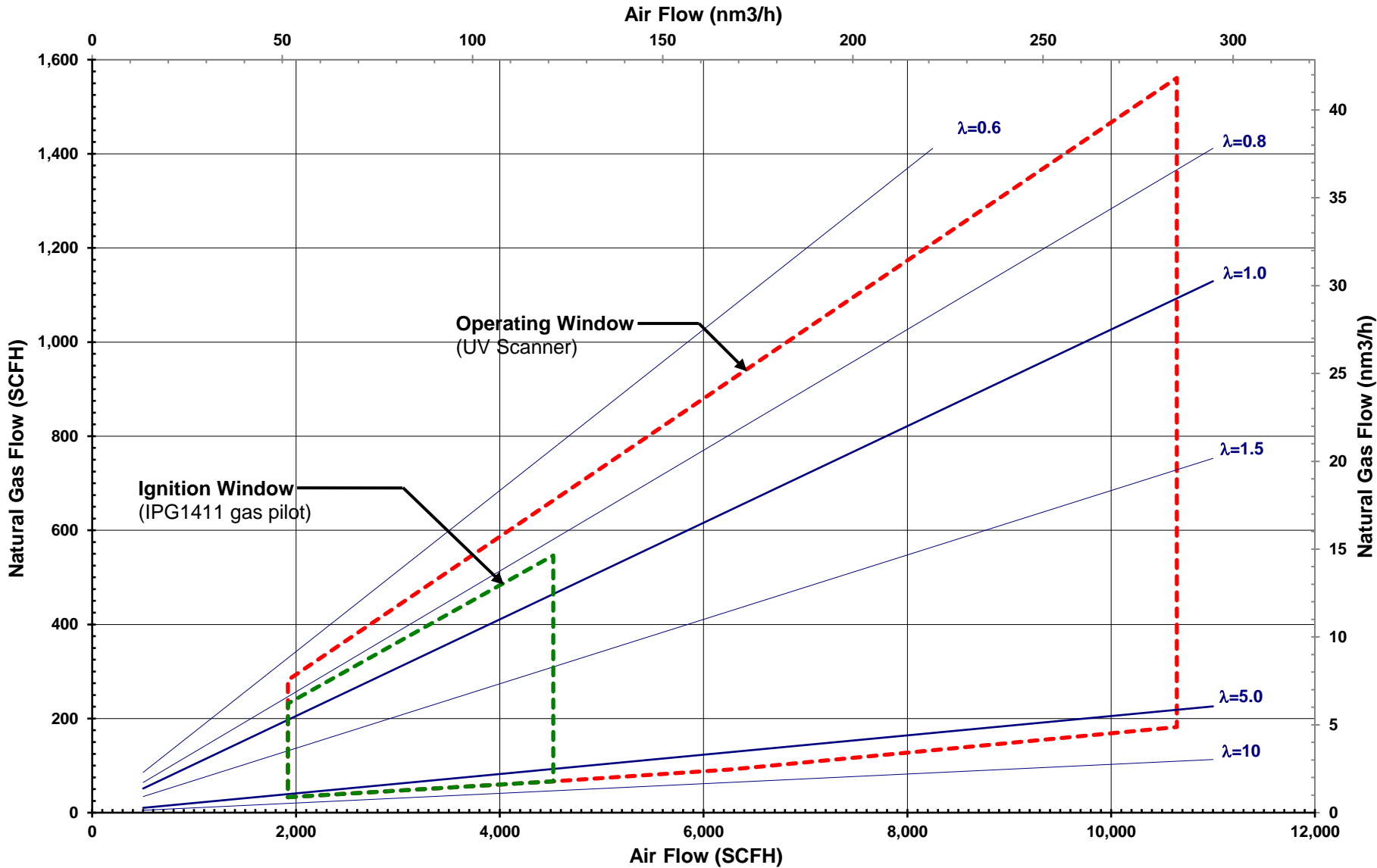
\*Note: Gas Inlet Pressure for NMC burner is not suitable for fuel flow measurement and is given for component sizing and reference only

**NMC/NMC-H 215 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 NMC burner is not suitable for fuel flow measurement and is given for component sizing and reference only

**NMC/NMC-H 215 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



**NMC/NMC-H 215 Operating and Ignition Window**  
 No. 2 Fuel Oil 138,000 BTU/gal (HHV Standard) / 10.3 kWh/liter (LHV Metric), 0.87 S.G.  
 and Ambient Combustion Air

