



**NMG NOZZLE MIX GAS BURNERS**

**NMG CAPACITY TABLE**

O N R A T I O  G A S	NMG BURNER NO.	AIR PRESSURE													
		4 oz.		6 oz.		8 oz.		12 oz.		16 oz.		20 oz.		24 oz.	
		AIR CFM	BTU CAP. IN 1000 BTU/HR	AIR CFM	BTU CAP. IN 1000 BTU/HR	AIR CFM	BTU CAP. IN 1000 BTU/HR	AIR CFM	BTU CAP. IN 1000 BTU/HR	AIR CFM	BTU CAP. IN 1000 BTU/HR	AIR CFM	BTU CAP. IN 1000 BTU/HR	AIR CFM	BTU CAP. IN 1000 BTU/HR
	210x50	21	114	25	136	29	158	36	196	41	224	46	251	50	273
	210	33.5	183	41	224	47.3	258	58	316	67	365	75	409	82	447
	215	70	382	86	469	99	540	121	660	140	764	157	856	172	938
	220	132	720	161	878	186	1015	228	1244	263	1435	294	1604	322	1757
	230	272	1484	333	1817	385	2100	471	2569	544	2968	608	3317	666	3633
	240	413	2253	505	2755	583	3180	714	3895	825	4500	922	5030	1011	5515
	260	780	4255	955	5210	1103	6017	1351	7370	1560	8510	1744	9514	1911	10425

Capacities based on natural gas 1040 Btu/Cu. Ft. Minimum gas pressure required at burner inlet 6 "wc.

**TABLE 1**

**NMG-H CAPACITY TABLE  
(Air Flow @ 16 osig)**

NMG BURNER NO.	ITEM	COMBUSTION AIR TEMP., °F				MIN. FLOW	EXCESS AIR, %
		100	400	650	800		
H210	Combustion air, scfm	67	54	48	45	7	200
	Natural gas, scfh	371	300	264	248	38	
H215	Combustion air, scfm	140	113	100	94	14	200
	Natural gas, scfh	775	625	550	517	77	
H220	Combustion air, scfm	263	212	187	175	26	200
	Natural gas, scfh	1457	1175	1035	971	145	
H230	Combustion air, scfm	544	439	386	363	54	200
	Natural gas, scfh	3014	2432	2141	2009	300	
H240	Combustion air, scfm	825	666	586	550	82	150
	Natural gas, scfh	4570	3743	3302	3102	455	
H260	Combustion air, scfm	1560	1259	1108	1040	156	150
	Natural gas, scfh	8643	6974	6138	5761	865	

**TABLE 2**

(OVER)

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

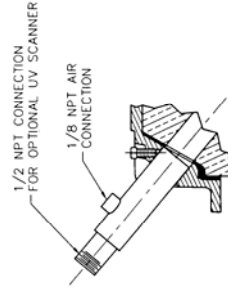
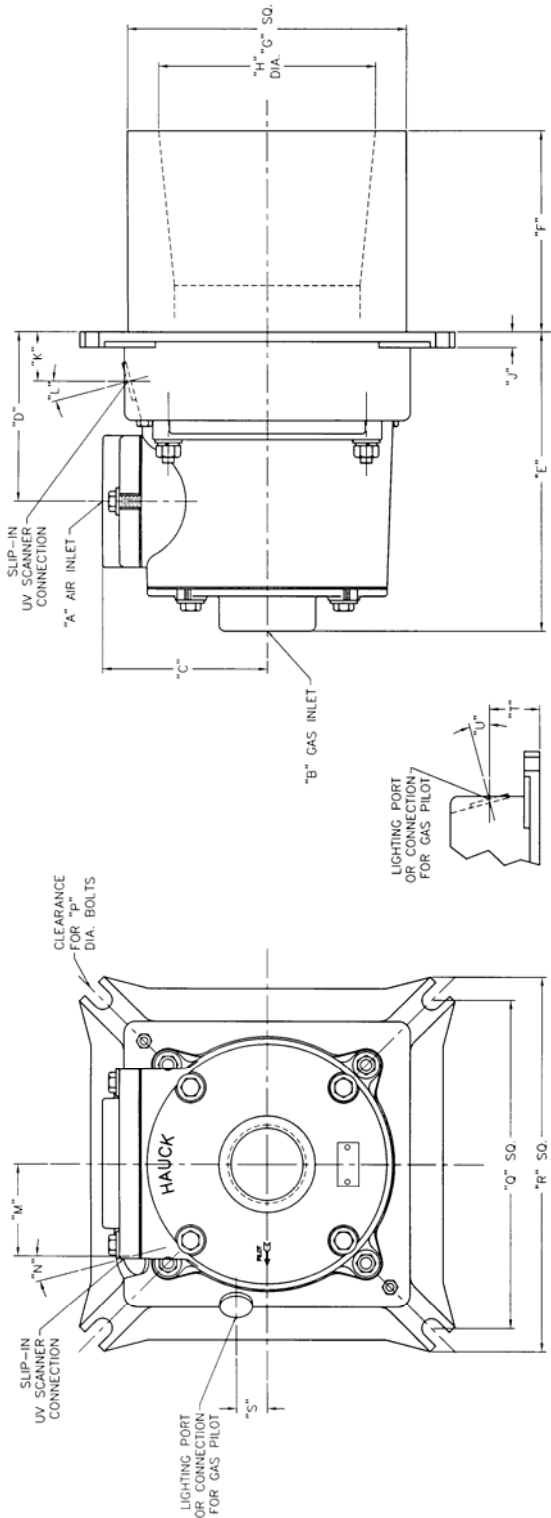
## NMG-H CAPACITY TABLE AND APPLICATION NOTES

1. Fuel capacity based on natural gas at 1040 Btu/cu. ft.
2. Natural gas flows shown for 10% excess air. 6 "wc minimum gas pressure required at burner.
3. Combustion air capacities at 16 osi total pressure. Air flows at lower pressures proportional to  $\sqrt{P/16}$ . Air flows at intermediate temperature proportional to  $\sqrt{\frac{860}{T_h+460}}$  times the flow at 400°F.
4. Include sensible heat of preheated air when computing total burner heat output. Sensible heat Btu/hr = scfm x 1.11 x  $\Delta T$ (°F).
5. Excess air % maximums (approx.) shown for 16 osig secondary air pressure.
6. To size pipe for preheated air, compute acfm = scfm  $(\frac{T+460}{520})$ .
7. When supervising flame, provide approximately 16 osig ambient purge air (1-1/2 – 2 cfm) to special scanner purge assembly.
8. Flame lengths are shown in Hauck Application Sheet GJ58.
9. When sizing blower, consider application and operation so as to prevent overloading the blower motor at ambient scfm.



# DIMENSIONS

## NMG NOZZLE MIX GAS BURNERS NMG 210 - 240



SECTION "A-A"  
SHOWING OPTIONAL UV SCANNER ADAPTER

BURNER NO.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"Q"	"R"	"S"	"T"	"U"
NMG 210	1 NPT	3/4 NPT	3 1/4	4 3/8	7 1/16	5	6	4	7/16	1 13/16	30"	1 3/4	15"	3/8	7 3/8	8 5/8	0	1 9/16	30"
NMG 215	1 1/2 NPT	1 NPT	3 1/2	4 5/8	7 9/16	5	7 1/2	4 5/16	1/2	3 1/2	30"	1 7/8	13"	3/8	9	10 1/4	0	1 1/2	30"
NMG 220	2 NPT	1 1/4 NPT	4 1/8	4 7/8	8 1/8	6 1/2	9	5 1/2	1/2	4 1/8	40"	2 3/4	15"	5/8	10 5/8	12 1/8	0	1 13/16	47"
NMG 230	3 NPT	2 NPT	5 5/16	5 1/2	9 11/16	6 1/2	9	7	1/2	5 5/16	40"	2 3/4	15"	5/8	10 5/8	12 1/8	0	1 13/16	47"
NMG 240	4 NPT	2 1/2 NPT	7 5/8	8 7/8	14 7/16	11 5/16	14 3/4	9 1/2	5/8	7 5/8	39"	3 1/4	0"	5/8	17 1/4	19 3/4	1	2 5/16	56"

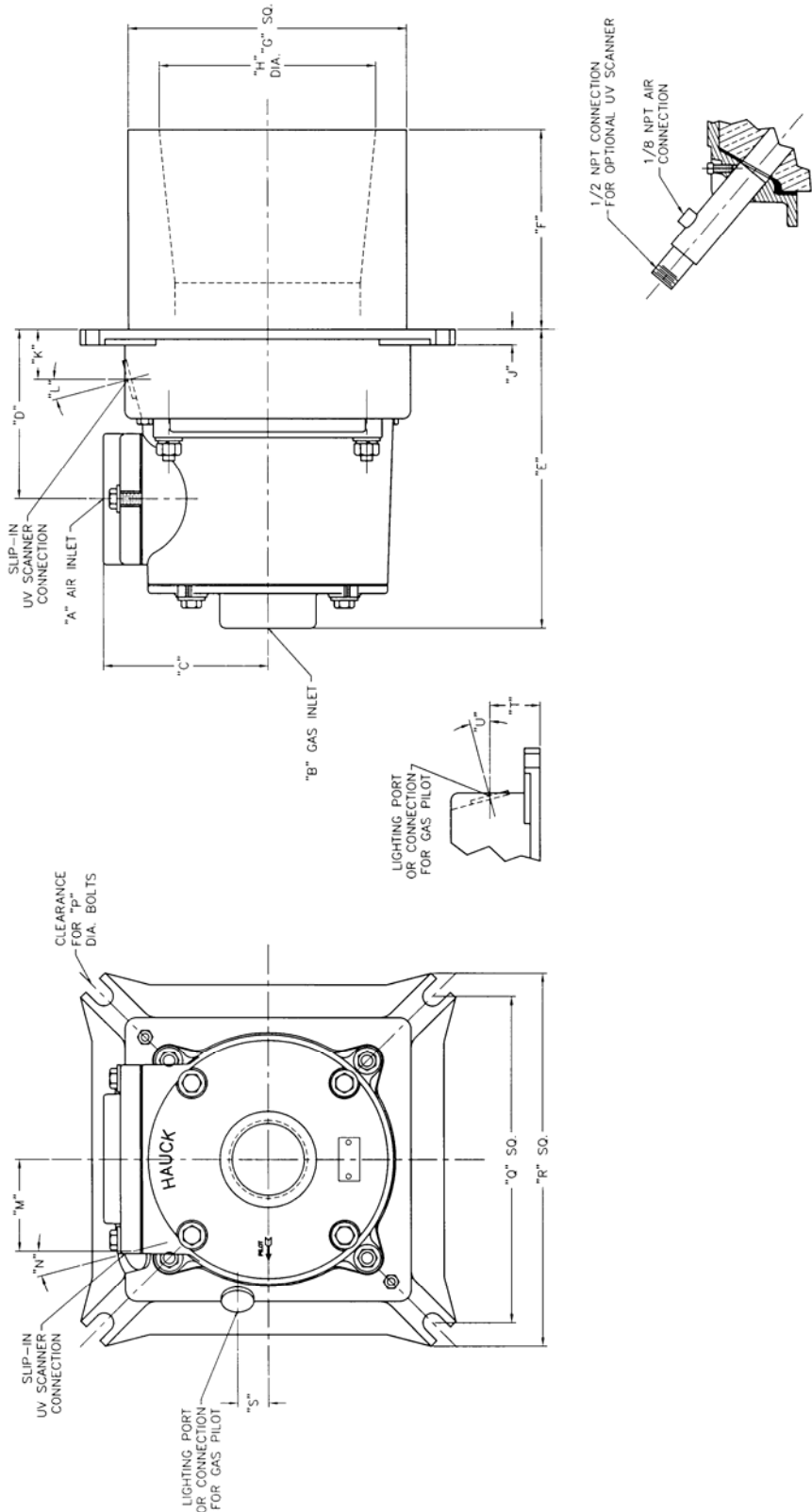
Y3110  
(NOT TO SCALE)

NOTES:  
1. ALL PRESSURE TAP CONNECTIONS ARE 1/8 NPT.  
2. NMG 210-220 HAS NO PRESSURE TAP ON AIR INLET FLANGE.

(Metric Dimensions on Reverse Side)

# METRIC DIMENSIONS

## NMG NOZZLE MIX GAS BURNERS NMG 210 - 240



SECTION "A-A"  
SHOWING OPTIONAL UV SCANNER ADAPTER

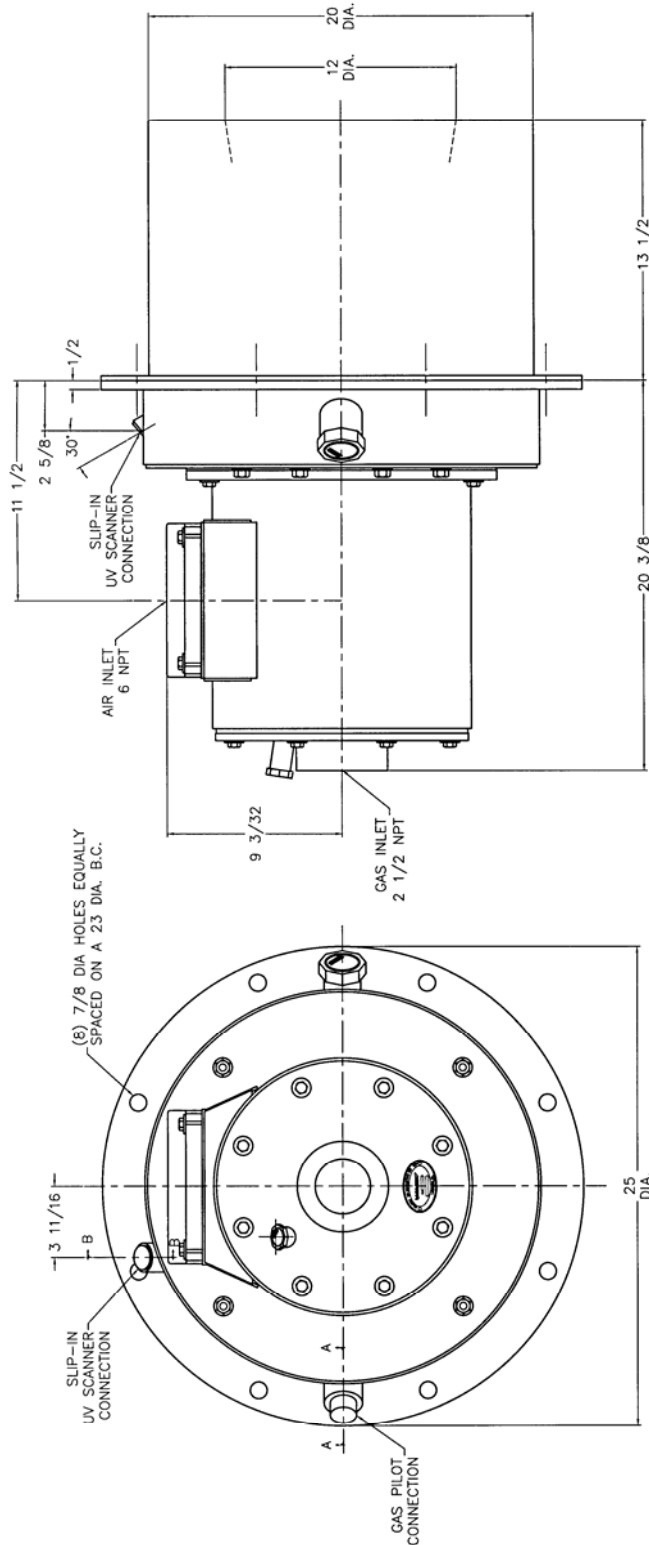
BURNER NO.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"Q"	"R"	"S"	"T"	"U"
NMG 210	1 NPT	3/4 NPT	83	111	179	127	152	102	11	46	30'	4	13'	10	187	219	0	40	30'
NMG 215	1 1/2 NPT	1 NPT	89	117	192	127	191	110	13	89	30'	48	13'	10	229	260	0	38	30'
NMG 220	2 NPT	1 1/4 NPT	105	124	206	165	229	140	13	105	40'	70	15'	16	270	308	0	46	47'
NMG 230	3 NPT	2 NPT	135	140	246	165	229	178	13	135	40'	70	15'	16	270	308	0	46	47'
NMG 240	4 NPT	2 1/2 NPT	194	225	367	287	375	241	16	194	39'	83	0'	16	438	502	1	59	56'

Y3110 METRIC  
(NOT TO SCALE)

NOTES:  
1. ALL PRESSURE TAP CONNECTIONS ARE 1/8 NPT.  
2. NMG 210-220 HAS NO PRESSURE TAP ON AIR INLET FLANGE.



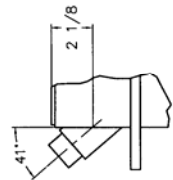
**NMG NOZZLE MIX GAS BURNERS  
NMG260**



1/2 NPT CONNECTION FOR OPTIONAL UV SCANNER  
1/8 NPT AIR CONNECTION

Y3112  
(NOT TO SCALE)

SECTION "B-B"  
SHOWING OPTIONAL UV SCANNER ADAPTER



41  
2 1/8

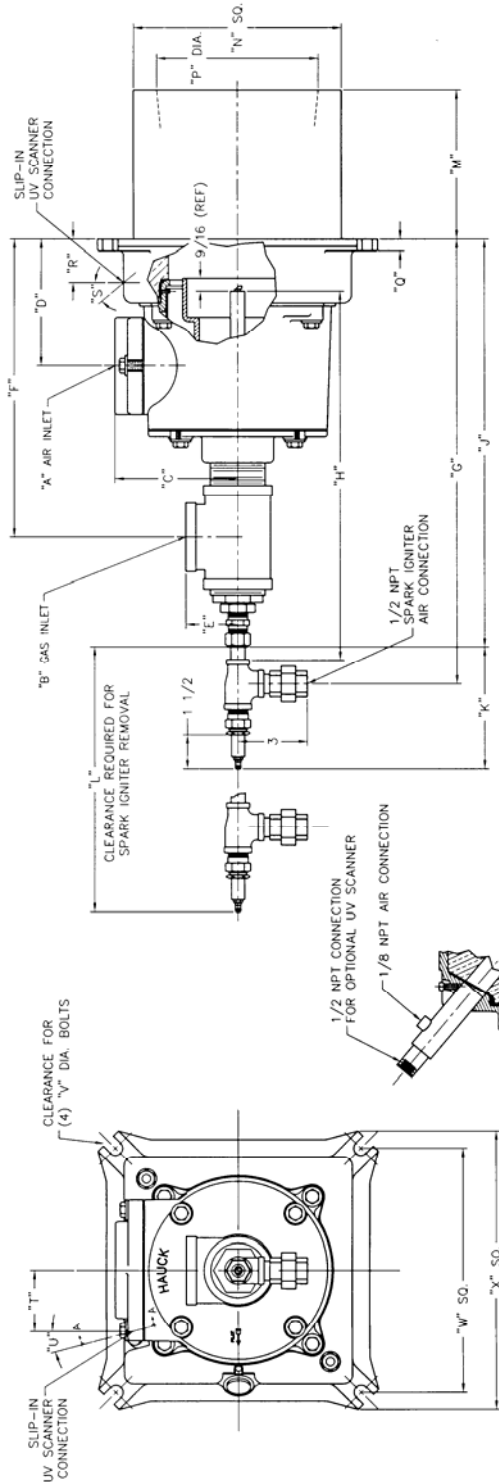
SECTION "A-A"  
SHOWING OPTIONAL GAS PILOT CONNECTION

(Metric Dimensions on Reverse Side)



# DIMENSIONS

## NMG NOZZLE MIX GAS BURNER DIRECT SPARK IGNITION NMG210 - NMG240



SECTION "A-A"  
SHOWING OPTIONAL UV SCANNER ADAPTER

		CONSULT HAUCK																				
BURNER NO.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"Q"	"R"	"S"	"T"	"U"	"V"	"W"	"X"
NMG 210																						
NMG 215	1 1/2 NPT	1 NPT	3 1/2	4 5/8	1 1/2	9 13/16	15 5/16	12	13 1/4	5 3/4	17	5	7 1/2	4 5/16	1/2	3 1/2	30"	1 7/8	13"	3/8	9	10 1/4
NMG 220	2 NPT	1 1/4 NPT	4 1/8	4 7/8	1 3/4	10 5/8	16 15/16	13	15 1/16	5 9/16	18	6 1/2	9	5 1/2	1/2	4 1/8	40"	2 3/4	15"	5/8	10 5/8	12 1/8
NMG 230	3 NPT	2 NPT	5 5/16	5 1/2	2 1/4	12 15/16	19 5/16	16	17 11/16	5 5/16	21	6 1/2	9	7	1/2	5 5/16	40"	2 3/4	15"	5/8	10 5/8	12 1/8
NMG 240	4 NPT	2 1/2 NPT	7 5/8	8 7/8	2 11/16	17 3/4	24 5/8	23	23 3/16	5 1/8	28	11 5/16	14 3/4	9 1/2	5/8	7 5/8	39"	3 1/4	0"	5/8	17 1/4	19 3/4

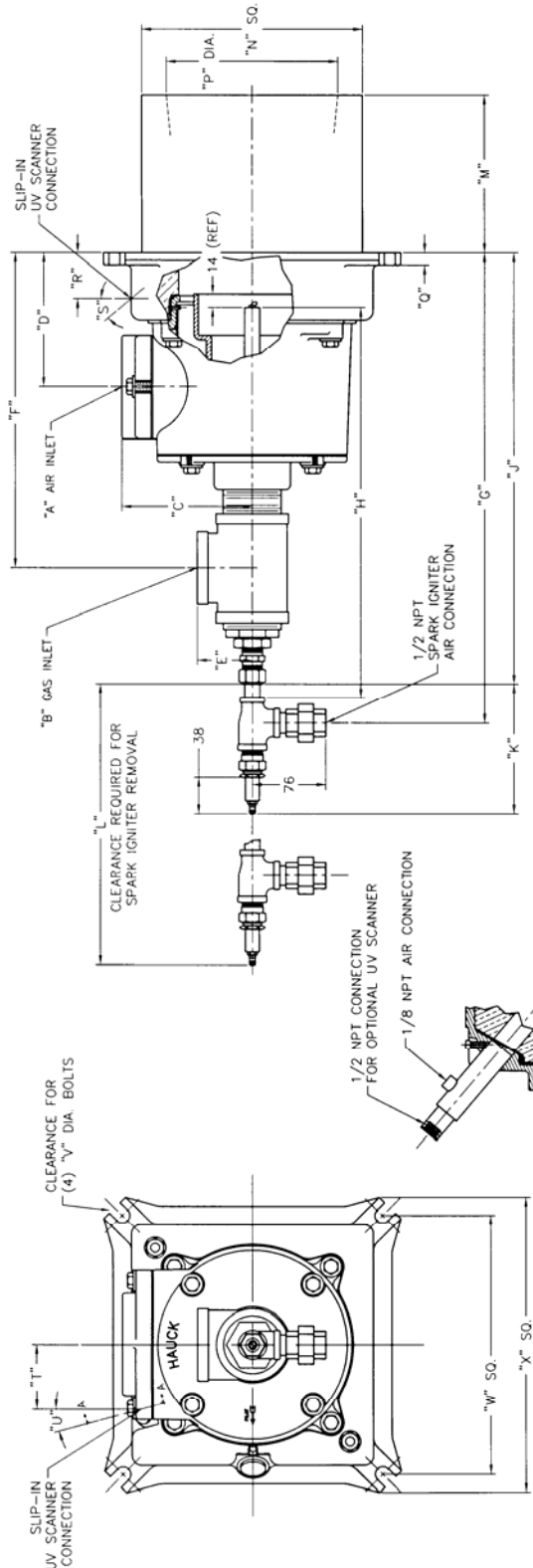
NOTES:  
1. ALL PRESSURE TAP CONNECTIONS ARE 1/8 NPT.  
2. NMG 210-220 HAS NO PRESSURE TAP ON AIR INLET FLANGE.

Y7970  
(NOT TO SCALE)

(Metric Dimensions on Reverse Side)

# METRIC DIMENSIONS

## NMG NOZZLE MIX GAS BURNER DIRECT SPARK IGNITION NMG210 - NMG240



SECTION "A-A"  
SHOWING OPTIONAL UV SCANNER ADAPTER

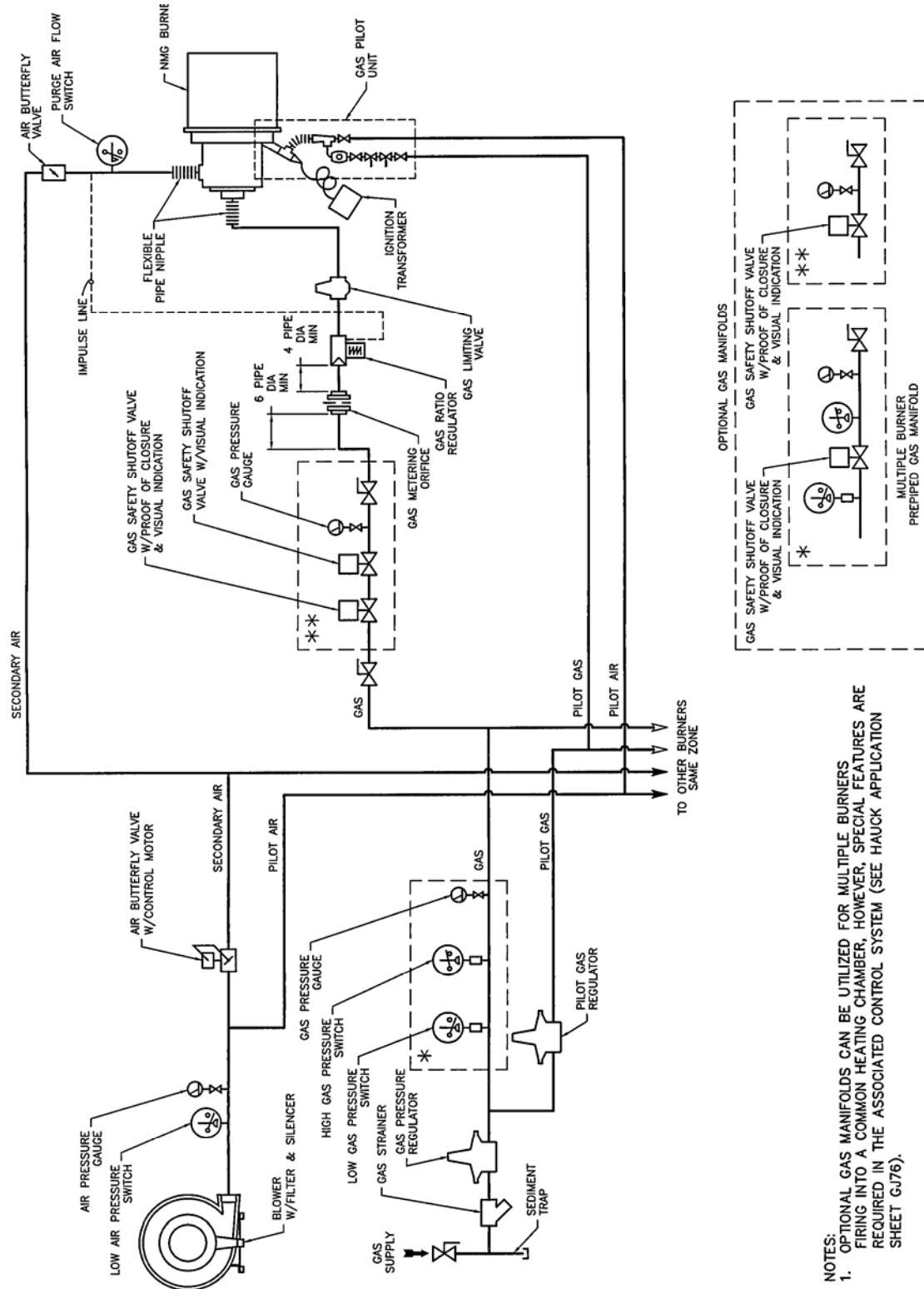
BURNER NO.	CONSULT HAUCK																							
	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"	"M"	"N"	"O"	"P"	"Q"	"R"	"S"	"T"	"U"	"V"	"W"	"X"
NMG 210	1 1/2 NPT	89	117	38	249	389	305	337	146	432	125	191	110	13	89	30'	48	13'	10	229	260			
NMG 215	2 NPT	105	124	44	270	430	330	383	143	457	165	229	140	13	105	40'	70	15'	16	270	308			
NMG 220	3 NPT	135	140	57	329	491	406	449	135	533	165	229	178	13	135	40'	70	15'	16	270	308			
NMG 230	4 NPT	194	225	68	451	625	584	589	130	711	287	375	241	16	194	39'	83	0'	16	438	502			

Y7970 METRIC  
(NOT TO SCALE)

- NOTES:  
 1. ALL PRESSURE TAP CONNECTIONS ARE 1/8 NPT.  
 2. NMG 210-220 HAS NO PRESSURE TAP ON AIR INLET FLANGE.

# NMG NOZZLE MIX GAS BURNERS

## TYPICAL MULTIPLE BURNER SYSTEM RATIO CONTROL



NOTES:  
1. OPTIONAL GAS MANIFOLDS CAN BE UTILIZED FOR MULTIPLE BURNERS FIRING INTO A COMMON HEATING CHAMBER, HOWEVER, SPECIAL FEATURES ARE REQUIRED IN THE ASSOCIATED CONTROL SYSTEM (SEE HAUCK APPLICATION SHEET GJ76).

Y7740  
(NOT TO SCALE)