

Gas Performance Data												
PF-35-G		1	2	3	4	5	6	7	8	9	10	11
% Burner output		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1 Heat input	MMBtu/hr	3.5	6.7	9.8	13.0	16.1	19.3	22.4	25.6	28.7	31.9	35.0
2 Gas Flow	SCFH	3,500	6,650	9,800	12,950	16,100	19,250	22,400	25,550	28,700	31,850	35,000
3	M ³	99	188	278	367	456	545	634	723	813	902	991
4 Gas Valve position		1.5	2.25	3	3.25	3.75	4.5	4.75	5	5.75	6.25	8.5
5 Gas Pressure in Train	PSI	5.50	5.15	5.23	4.97	5.00	5.10	4.89	4.92	4.79	4.78	4.74
6	kPa	37.9	35.5	36.1	34.3	34.5	35.2	33.7	33.9	33.0	33.0	32.7
7 Gas Pressure in gas manifold	"w.c"	-0.22	1.9	4.9	8.2	13.1	20.1	23.1	27.3	32.3	35.9	41.2
8	Pa	-55	473	1,221	2,042	3,263	5,007	5,754	6,800	8,045	8,942	10,262
9 Dp at gas orifice (3" bore)	"w.c"	0.11	0.36	0.75	1.10	1.60	2.45	2.97	3.45	4.05	4.67	6.03
10	Pa	27	90	187	274	399	610	740	859	1,009	1,163	1,502
11 Damper Position		0	1.75	2.5	3	3.75	4.5	4.75	5.25	5.75	6.5	9
12 Blower Body Pressure	"w.c"	31.70	32.70	33.00	33.70	33.70	33.20	33.10	33.10	32.70	32.60	32.20
13	Pa	7,896	8,145	8,220	8,394	8,394	8,270	8,245	8,245	8,145	8,120	8,020
14 Burner Body Pressure	"w.c"	0.70	3.00	5.20	7.00	9.90	14.20	17.30	20.10	24.50	27.20	32.20
15	Pa	174	747	1,295	1,744	2,466	3,537	4,309	5,007	6,103	6,775	8,020
16 Combustion Air Motor Power	HP	18.8	20.8	23.0	24.5	26.2	29.0	30.0	31.3	32.0	34.0	35.4
17 Combustion Air Motor Current	Amp.	22.1	24.2	26.0	27.2	29.0	31.4	32.4	33.4	35.0	35.7	37.4
18 Total Air Flow	SCFH	276,968	298,536	317,992	331,290	348,484	370,095	385,279	396,341	414,323	425,245	432,856
19	M ³	7,843	8,454	9,005	9,381	9,868	10,480	10,910	11,223	11,732	12,042	12,257
20 Burner Air Flow	SCFH	100,842	122,410	141,866	155,164	172,358	193,969	209,153	220,215	238,197	249,119	264,189
21	M ³	2,856	3,466	4,017	4,394	4,881	5,493	5,923	6,236	6,745	7,054	7,481
Flame Length	Feet	1	4.5	5.5	5.5	6	7.5	5.5	5.75	6.25	6.75	6
Flame Diameter	Feet	1.5	1.5	1.5	2	2	2	2	2	2	2	2
Excess air	%	687%	346%	223%	154%	115%	91%	71%	54%	44%	33%	23%

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Match orifice meter differential pressure with burner body pressure. The chart below shows this graphically. To use it, find the fuel flow on the horizontal axis, then move vertically to the curve and then horizontally to the left to find the required burner body pressure. These values were measured using a burner firing into atmospheric conditions. These are to be used as a starting point only. Final Setup must be determined using a combustion analyzer.

