

Gas Performance Data												
PF-50-G 2015		1	2	3	4	5	6	7	8	9	10	11
% Burner output		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Heat input	MMBtu/hr	7.1	11.4	15.7	20.0	24.3	28.6	32.9	37.1	41.4	45.7	50.0
Gas Flow	SCFH	7,143	11,429	15,714	20,000	24,286	28,571	32,857	37,143	41,429	45,714	50,000
Gas Valve position	0-9	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.5	7.5	9.0
Gas Pressure in Train	PSI	5.78	5.65	5.60	5.53	5.51	5.49	5.44	5.38	5.20	5.14	4.76
Gas Pressure in gas manifold	"w.c"	0.1	0.3	1.4	4.5	4.9	5.6	8.4	14.0	20.9	23.9	25.0
Dp at gas orifice (2.5" bore)	"w.c"	2.00	2.80	4.50	7.10	9.00	11.20	14.30	18.20	23.90	28.00	28.50
Damper Position	0-9	0.5	1	2	3	3.5	4	4.5	5.5	6.5	7.5	9
Blower Body Pressure	"w.c"	35.80	36.00	36.80	36.50	36.30	36.00	35.70	36.14	35.97	35.00	35.00
Burner Body Pressure	"w.c"	1.30	2.00	4.60	7.30	10.60	14.40	18.80	22.30	26.50	28.00	28.50
Combustion Air Motor Power	HP	22.6	25.5	30.0	36.5	40.0	43.5	46.5	49.7	52.2	51.9	51.7
Combustion Air Motor Current	Amp.	27.6	30.0	34.2	40.0	43.0	46.0	50.0	52.0	54.0	55.0	54.2
Burner Air Flow	SCFH	104,397	123,203	162,343	217,111	249,205	276,209	309,011	340,191	366,189	373,715	378,667
Total Air Flow	SCFH	356,842	375,648	414,788	469,556	501,650	528,654	561,456	592,636	618,634	626,160	631,112
	M <sup>3</sup>	10,105	10,637	11,745	13,296	14,205	14,970	15,899	16,782	17,518	17,731	17,871
Flame Length	Feet	4.2	5	5.4	3.8	3.8	3.8	4.6	4.2	4.2	4.6	5
Flame Diameter	Feet	2	2.5	2.5	2	2	2.5	2	2	2	2.9	2.5
Excess air	%	397%	227%	162%	133%	105%	84%	70%	59%	48%	36%	25%

275689-1-1 2.5" butterfly, 3" SSV's, 4" metering.

Match gas 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 blower 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.

