

Gas Performance Data												
WJ-125-G-2012		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	7.0	20.1	33.1	46.2	59.2	72.3	85.3	98.4	111.4	124.5	137.5
Gas Flow	SCFH	7,000	20,050	33,100	46,150	59,200	72,250	85,300	98,350	111,400	124,450	137,500
	M ³	198	568	937	1,307	1,676	2,046	2,415	2,785	3,154	3,524	3,894
Gas Mod. valve position	%	1.50	2.50	3.00	3.75	4.00	4.50	5.50	5.75	6.25	7.00	9.50
Gas Pressure in Train	PSI	4.84	4.78	4.78	4.75	4.75	4.71	4.66	4.71	4.68	4.69	4.65
	kPa	33.4	33.0	33.0	32.8	32.8	32.5	32.1	32.5	32.3	32.3	32.1
Gas Pressure in gas manifold	"w.c"	0.3	1.7	2.4	4.7	5.3	7.8	11.9	15.0	22.6	32.1	43.9
	Pa	75	423	598	1,171	1,320	1,943	2,964	3,736	5,629	7,996	10,935
Dp at gas orifice (4.6" bore)	"w.c"	0.09	0.37	1.00	1.80	2.20	3.90	5.70	6.80	9.20	10.40	13.30
	Pa	22	92	249	448	548	971	1,420	1,694	2,292	2,590	3,313
Damper Position		0	0.5	1.25	2.25	2.5	3.5	4	4.25	5	6	9
Blower Pressure	"w.c"	23.4	23.5	23.5	24.2	23.7	24.2	23.9	23.7	23.5	23	22
	Pa	5,829	5,853	5,853	6,028	5,903	6,028	5,953	5,903	5,853	5,729	5,480
Burner Body Pressure	"w.c"	0.33	1	1.47	3.14	3.8	6.5	8.96	10.4	13.4	16.3	19.8
	Pa	82	249	366	782	947	1,619	2,232	2,590	3,338	4,060	4,932
Combustion Air Motor Power	HP	63.5	70.3	72.9	87.3	91.5	104	111	115	121	128	133
Combustion Air Motor Current	Amp.	75.4	80.3	82.9	94.9	99.9	109	118	121	129	132	139
Main Air Flow	SCFH	254,477	376,163	464,782	642,657	811,487	924,726	1,057,428	1,175,618	1,342,960	1,460,884	1,643,037
	M ³	7,206	10,652	13,161	18,198	22,979	26,185	29,943	33,290	38,028	41,368	46,526
Flame Length	Feet	3.5	4	4.5	4.5	5	5	5	4.75	4.75	5	5
Flame Diameter	Feet	2.75	3	3	3	3.5	3.5	3.5	4.75	5	5	5
Excess air	%	261%	86%	40%	38%	36%	27%	23%	19%	20%	17%	19%

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Match orifice meter differential pressure with blower 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.

