

Gas Performance Data												
WJ-50-G-2009		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	Btu/hr	5,500,000	10,450,000	15,400,000	20,350,000	25,300,000	30,250,000	35,200,000	40,150,000	45,100,000	50,050,000	55,000,000
Gas Flow	SCFH	5,500	10,450	15,400	20,350	25,300	30,250	35,200	40,150	45,100	50,050	55,000
Gas Mod. valve position	%	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	9.0
Gas Pressure in Train	PSI	5.1	5.1	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	kPa	35.3	34.8	34.9	34.7	34.6	34.5	34.5	34.5	34.5	34.5	34.5
Dp at gas orifice (3" bore)	"w.c."	0.14	0.69	1.42	2.47	3.70	5.30	7.16	9.70	12.40	15.17	17.80
	Pa	35	172	354	615	922	1320	1783	2416	3089	3779	4434
Damper Position		0	1	1.5	2.25	2.75	3.25	3.5	4	4.5	5.5	7.5
Blower Body Pressure	"w.c."	23.7	23.5	23.5	23.5	23.5	23.2	22.2	21	19	17.5	16
	Pa	5903	5853	5853	5853	5853	5779	5530	5231	4733	4359	3985
Burner Body Pressure	"w.c."	0.15	0.5	0.9	1.6	2.5	3.33	4.8	5.7	7.8	10.3	12.3
	Pa	37	125	224	399	623	829	1196	1420	1943	2566	3064
Combustion Air Motor Power	HP	34	38	40	43	46	50	52	55	56	58	59
Combustion Air Motor Current	Amp.	38	41	44	47	50.8	53	56	58	60	61	61
Main Air Flow	SCFH	75176	197639	254163	333063	381739	427277	448869	489698	527389	593354	687619
	M <sup>3</sup>	2129	5597	7197	9431	10810	12099	12711	13867	14934	16802	19471
Flame Length	Feet											
Flame Diameter	Feet											
Excess air	%	36%	88%	64%	63%	50%	40%	27%	21%	16%	18%	24%

Match oil flow rate (GPM) 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.

