

Gas Performance Data												
WJ-100-G-2017		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	11	21	31	41	51	61	70	80	90	100	110
Gas Flow	SCFH	11,000	20,900	30,800	40,700	50,600	60,500	70,400	80,300	90,200	100,100	110,000
	M ³	311	592	872	1,152	1,433	1,713	1,994	2,274	2,554	2,835	3,115
Gas Mod. valve position		1.00	1.50	2.00	2.50	2.75	3.50	4.00	4.65	4.75	6.25	10.00
Gas Pressure in Train	PSI	6.5	6.4	6.3	5.9	6.1	5.6	5.4	5.6	5.6	5.0	4.7
	kPa	44.5	43.9	43.5	40.8	42.2	38.3	37.3	38.8	38.4	34.4	32.3
Gas Pressure in gas manifold	"w.c"	0.5	2.3	5.2	8.3	12.3	17.8	23.3	29.4	35.2	47.4	61.3
	Pa	125	573	1,295	2,067	3,064	4,434	5,804	7,323	8,768	11,806	15,269
Dp at gas orifice (4.6" bore)	"w.c"	0.15	0.44	0.94	1.54	2.34	3.51	4.72	5.96	7.31	10.46	13.76
	Pa	37	110	234	384	583	874	1,176	1,485	1,821	2,605	3,427
Damper Position		0	1.5	2	2.75	3.25	3.75	4.25	4.5	4.75	6.25	9
Blower Pressure	"w.c"	22.9	23.1	23.1	23.2	23.3	22.9	22.7	22.4	22	21.6	21.4
	Pa	5,704	5,754	5,754	5,779	5,804	5,704	5,654	5,579	5,480	5,380	5,330
Burner Body Pressure	"w.c"	0.4	1.67	2.84	4.53	6.36	9.07	10.82	12.02	13.13	15.85	17.27
		0.8	1.8	4.1	7.0	9.8	12.1	13.8	15.0	15.8	16.9	18.9
	Pa	100	416	707	1,128	1,584	2,259	2,695	2,994	3,270	3,948	4,302
Combustion Air Motor Power	HP	56.4	63.8	69.8	75.4	80.1	86	89.9	91.7	93	97	99
Combustion Air Motor Current	Amp.	70.3	76.9	81.5	86.3	89.8	95.9	99.6	101	103	107	108
Main Air Flow	SCFH	299,042	464,920	598,705	714,802	852,697	980,900	1,078,616	1,146,202	1,205,359	1,267,664	1,343,867
		195,314	482,561	661,895	817,718	901,149	962,557	1,005,378	1,045,144	1,090,172	1,217,656	1,273,095
	M ³	8,468	13,165	16,953	20,241	24,146	27,776	30,543	32,457	34,132	35,896	38,054
Flame Length	Feet	4	4	4.5	4.5	5	5	5.5	6.5	8	8	8
Flame Diameter	Feet	3	3	3	3.5	3.5	3.5	3.5	4	4.5	4.5	4.5
Excess air	%	170%	121%	93%	75%	68%	61%	52%	42%	33%	26%	21%

16-297 single motor

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.

