

### Oil Performance Data

PT-50-O		0%	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%	
1	Heat input	MMBtu/hr	5.5	8.0	10.4	12.9	15.4	17.9	20.3	22.8	25.3	27.8	30.2	32.7	35.2	37.6	40.1	42.6	45.1	47.5	50.0	52.5	55.0
2	Oil Flow	GPM	0.65	0.94	1.23	1.52	1.81	2.10	2.39	2.68	2.97	3.26	3.55	3.84	4.13	4.42	4.71	5.00	5.29	5.58	5.87	6.16	6.45
3	Oil Pressure at Train Inlet	PSI	90	91	90	90	90	90	89	89	89	89	89	89	88	88	88	87	87	86	86	85	85
4	Oil Pressure at Nozzle	PSI	31	29	34	40	41	44	44	47	48	50	51.5	53	56	58	60	61	62	62	64	67	70
5	Compressed air Pressure	PSI	70	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71
6	Compressed air flow	SCFM	50	50	50	50	50	50	48	47	46	45	45	45	44	43	43	42	41	40	40	39	39
7	Blower Power	HP	0.55	0.7	1	1.4	1.9	2.4	3	3.7	4.6	5.7	6.85	8.2	9.65	11.3	13	15.1	17.3	19.7	22.3	25.0	28.3
8	Blower Body Pressure	i.w.c.	0.30	0.43	0.55	0.73	0.90	1.10	1.30	1.54	1.80	2.00	2.31	2.55	2.85	3.20	3.57	3.95	4.35	4.72	5.10	5.50	6.00
9	Main Air Flow	SCFH	149,889	173,063	196,236	219,410	242,584	265,758	288,932	312,105	335,279	358,453	381,627	404,801	427,974	451,148	474,322	497,496	520,670	543,843	567,017	590,191	613,365
10	Flame Diameter	Feet	1	1.1	1.5	1.25	1.5	1.5	1.5	1.5	1.5	1.5	1.75	2	2	2	2	2	2	2	2	2	2
11	Flame Length	Feet	6.0	5.0	5.0	6.0	7.0	6.0	5.0	5.0	4.5	4.0	4.0	4.0	4.0	4.0	3.8	3.5	3.5	3.5	3.5	3.8	3.8
12	Excess air	%	186%	128%	97%	78%	65%	56%	49%	44%	39%	35%	32%	30%	28%	26%	24%	23%	21%	20%	19%	18%	17%

VFD Setup		Oil VFD	Air VFD
Min Ref	Hz		13
Max Ref	Hz		52
Ramp Up Time	Sec		45
Ramp Down Time	Sec		45
Nominal Motor Speed	Hz		3250
Motor Current	A		
Motor Frequency	Hz		60
Motor Voltage	V		480
Motor Power	kW		

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. Increase or decrease the fan speed or the fuel flow as needed to match the values. Determine fuel flow by reading the the fuel flow meter on the oil train. All "light off" positions must be 0. Fine tuning must be done using a flue gas analyzer.

**Blower Body Pressure Vs. Fuel Flow  
PT-50-OIL**

