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## LAMPIRAN

Tabel Perhitungan Performa Mesin

Udara Suplay Tanpa Ozon & Ion													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
18	5	1432	9.23	1.38	1.30	0.62	0.45	22.66	33.22	36.34	68.19%	23.73%	106.27%
	7	1413	12.81	1.89	1.69	0.68	0.36	22.18	32.78	32.83	67.65%	30.00%	112.15%
	9	1384	16.48	2.39	2.02	0.57	0.24	21.82	32.11	38.17	67.94%	44.68%	118.15%

Udara Suplay Tanpa Ozon & Ion													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
16	5	1388	9.04	1.31	2.03	0.57	0.44	21.06	32.20	36.85	65.40%	24.58%	64.81%
	7	1378	12.55	1.81	2.36	0.52	0.29	20.56	31.97	39.56	64.30%	37.26%	76.66%
	9	1369	16.30	2.34	2.84	0.73	0.31	20.55	31.76	28.26	64.71%	34.34%	82.36%

Udara Suplay Tanpa Ozon & Ion													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
14	5	1398	9.02	1.32	2.57	0.62	0.47	20.89	32.44	33.50	64.40%	22.64%	51.31%
	7	1403	12.71	1.87	2.91	0.68	0.36	20.82	32.55	30.83	63.97%	29.55%	64.22%
	9	1379	16.30	2.35	3.30	0.78	0.33	20.50	31.99	26.30	64.08%	32.29%	71.19%

Udara Suplay Ion = 12 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
14	1	1403	1.89	0.28	1.67	0.42	1.50	39.59	32.55	95.25	121.63%	7.14%	16.62%
	5	1424	9.09	1.35	2.70	0.62	0.46	39.38	33.04	63.16	119.20%	23.24%	50.20%
	7	1398	12.74	1.86	3.16	0.68	0.36	38.49	32.44	56.99	118.68%	29.52%	59.03%
	9	1387	16.46	2.39	3.48	0.88	0.37	37.37	32.18	42.31	116.14%	28.94%	68.73%

Udara Suplay Ion = 12 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
16	1	1424	2.06	0.31	1.44	0.47	1.52	39.59	33.04	84.66	119.83%	7.02%	21.27%
	5	1400	9.02	1.32	2.15	0.62	0.47	37.00	32.48	59.34	113.92%	22.67%	61.42%
	7	1388	12.79	1.86	2.51	0.68	0.36	35.76	32.20	52.94	111.05%	29.42%	74.08%
	9	1376	16.50	2.38	2.93	0.83	0.35	34.68	31.92	41.71	108.62%	30.57%	81.21%

Udara Suplay Ion = 12 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
18	1	1439	2.06	0.31	0.86	0.47	1.51	40.13	33.39	85.80	120.19%	7.10%	35.90%
	5	1418	9.22	1.37	1.64	0.62	0.46	37.71	32.90	60.48	114.62%	23.47%	83.41%
	7	1422	12.82	1.91	2.07	0.68	0.35	37.15	32.99	54.99	112.59%	30.21%	92.26%
	9	1427	16.29	2.43	2.63	0.73	0.30	36.54	33.11	50.23	110.36%	35.78%	92.66%

udara suplay O3 = 3 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
14	1	1438	2.07	0.31	2.24	0.52	1.67	53.25	33.36	102.49	159.61%	6.41%	13.90%
	5	1404	9.03	1.33	2.77	0.62	0.47	52.20	32.57	83.72	160.26%	22.76%	47.92%
	7	1393	12.72	1.85	3.06	0.73	0.39	50.51	32.32	69.44	156.29%	27.27%	60.57%
	9	1376	16.30	2.35	3.34	0.78	0.33	48.65	31.92	62.42	152.38%	32.22%	70.38%

udara suplay O3 = 3 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
16	1	1399	1.90	0.28	1.46	0.47	1.68	52.26	32.46	111.76	161.01%	6.36%	19.00%
	5	1383	9.05	1.31	2.20	0.57	0.44	50.31	32.09	88.02	156.79%	24.52%	59.49%
	7	1374	12.72	1.83	2.61	0.68	0.37	49.16	31.88	72.78	154.21%	28.97%	70.05%
	9	1367	14.73	2.11	2.73	0.73	0.35	48.69	31.72	66.94	153.53%	30.99%	77.30%

udara suplay O3 = 3 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
18	1	1442	1.87	0.28	0.52	0.36	1.29	51.07	33.46	140.40	152.64%	8.30%	54.66%
	5	1421	9.25	1.38	1.39	0.57	0.42	48.91	32.97	85.56	148.34%	25.75%	98.73%
	7	1409	12.73	1.88	1.75	0.62	0.33	47.51	32.69	76.20	145.34%	32.21%	107.49%
	9	1385	16.28	2.36	2.01	0.73	0.31	36.54	32.13	50.23	113.71%	34.70%	117.16%

udara suplay O3 = 12 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
14	1	1413	1.87	0.28	1.61	0.36	1.32	52.40	32.78	144.06	159.83%	8.13%	17.16%
	5	1410	9.05	1.34	2.47	0.57	0.43	51.17	32.71	89.52	156.41%	24.99%	54.07%
	7	1427	12.80	1.91	2.94	0.68	0.35	50.91	33.11	75.37	153.78%	30.27%	65.02%
	9	1374	16.30	2.34	3.27	0.83	0.35	48.57	31.88	58.42	152.36%	30.16%	71.68%

udara suplay O3 = 12 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
16	1	1399	1.90	0.28	1.46	0.47	1.68	52.26	32.46	111.76	161.01%	6.36%	19.00%
	5	1383	9.05	1.31	2.20	0.57	0.44	50.31	32.09	88.02	156.79%	24.52%	59.49%
	7	1374	12.72	1.83	2.61	0.68	0.37	49.16	31.88	72.78	154.21%	28.97%	70.05%
	9	1367	12.73	1.82	2.58	0.73	0.40	48.69	31.72	66.94	153.53%	26.78%	70.72%

udara suplay O3 = 12 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
18	1	1430	1.89	0.28	0.47	0.42	1.47	51.04	33.18	122.78	153.83%	7.28%	59.84%
	5	1428	9.04	1.35	1.37	0.57	0.42	50.14	33.13	87.72	151.33%	25.29%	98.70%
	7	1413	12.98	1.92	1.65	0.68	0.35	48.49	32.78	71.79	147.91%	30.40%	116.32%
	9	1393	16.30	2.38	2.18	0.73	0.31	47.57	32.32	65.39	147.18%	34.94%	109.04%

udara suplay O3 = 18 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
14	1	1414	1.86	0.28	1.70	0.52	1.89	53.04	32.81	102.07	161.66%	5.67%	16.21%
	5	1395	8.84	1.29	2.64	0.62	0.48	51.70	32.37	82.92	159.75%	22.14%	48.82%
	7	1402	12.71	1.87	3.03	0.68	0.36	51.01	32.53	75.52	156.82%	29.53%	61.60%
	9	1372	16.31	2.34	3.34	0.83	0.35	49.45	31.83	59.48	155.33%	30.13%	70.10%

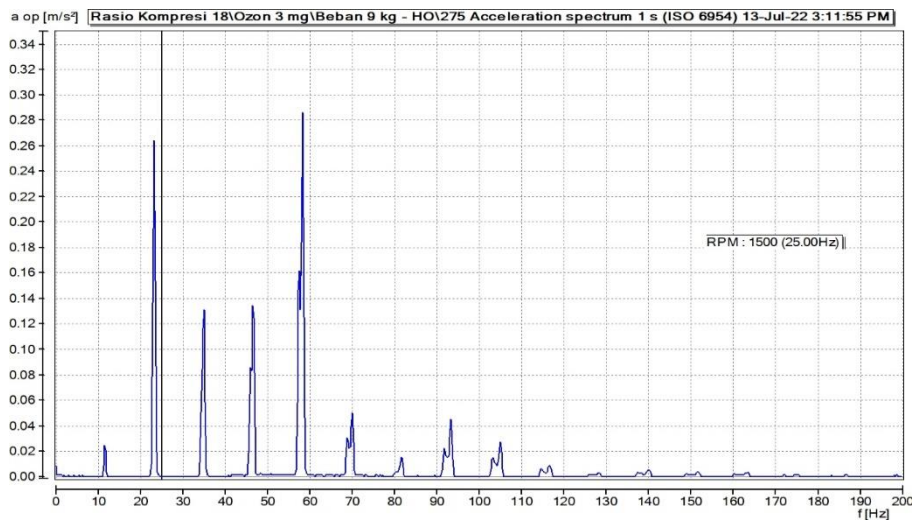
udara suplay O3 = 18 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
16	1	1410	1.70	0.25	1.42	0.36	1.45	52.95	32.71	145.57	161.85%	7.38%	17.65%
	5	1395	9.05	1.32	2.17	0.62	0.47	51.50	32.37	82.60	159.12%	22.67%	60.75%
	7	1374	12.71	1.83	2.60	0.73	0.40	50.04	31.88	68.79	156.98%	26.88%	70.19%
	9	1354	16.29	2.31	3.06	0.83	0.36	48.68	31.41	58.56	154.97%	29.70%	75.48%

udara suplay O3 = 18 ppm													
Rasio Kompresi	Beban (Kg)	Putaran (rpm)	Torsi (Nm)	BP (kW)	IP (kW)	FC (Kg/h)	SFC (kg/kW.h)	Ma (kg/h)	Mth (kg/h)	AFR	$\eta_{vol}$ (%)	$\eta_{th}$ (%)	$\eta_{mek}$ (%)
18	1	1440	1.90	0.29	0.72	0.36	1.27	51.81	33.41	142.43	155.06%	8.42%	39.67%
	5	1425	9.43	1.41	1.63	0.57	0.41	50.18	33.06	87.79	151.77%	26.32%	86.13%
	7	1388	12.72	1.85	1.93	0.62	0.34	47.95	32.20	76.90	148.89%	31.70%	95.52%
	9	1404	16.28	2.39	2.23	0.78	0.33	47.63	32.57	61.11	146.22%	32.83%	107.39%

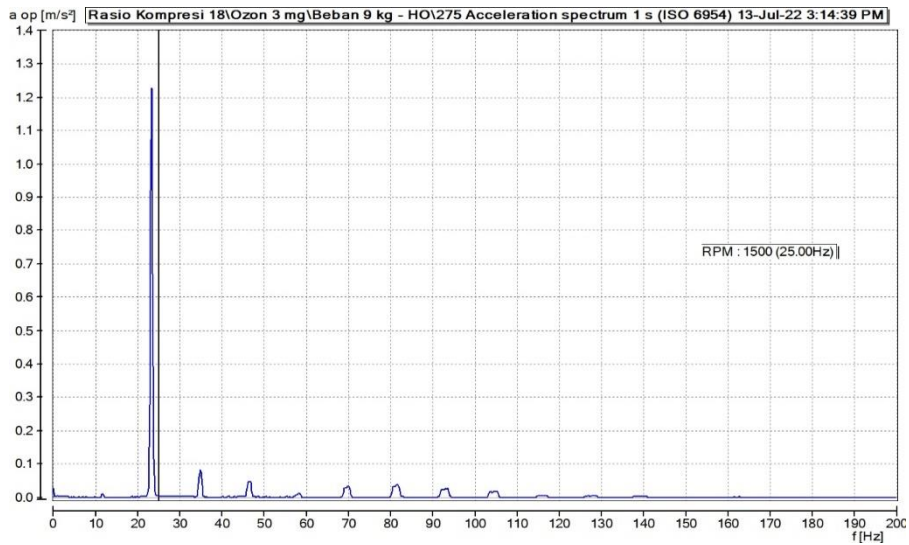


## Tampilan grafik pada software vibxpert II

### Horisontal



### Axial



## Dokumentasi

