

LAMPIRAN

Lampiran 1

Tabel Hasil Pengolahan Data Turbin Air Helikal Jumlah Sudu 3

Debit (m ³ /jam)	Vs (m/s)			Torsi (Nm)			Rasio U/Vs			WHP (Watt)			BHP (Watt)			Efisiensi (%)		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
50	0,90	0,89	0,90	0,058	0,058	0,061	1,36	1,40	1,40	5,576	5,466	5,576	0,610	0,610	0,638	10,94%	11,16%	11,44%
55	0,93	0,90	0,91	0,080	0,074	0,074	1,34	1,44	1,42	6,605	6,133	6,363	0,832	0,777	0,777	12,60%	12,66%	12,21%
60	0,93	0,93	0,94	0,093	0,098	0,093	1,49	1,50	1,43	7,160	7,160	7,285	0,971	1,026	0,971	13,56%	14,33%	13,32%
65	0,97	0,95	0,95	0,119	0,125	0,119	1,48	1,52	1,51	8,507	8,230	8,097	1,248	1,304	1,248	14,67%	15,84%	15,41%
70	1,00	1,00	1,00	0,175	0,186	0,170	1,51	1,53	1,55	9,792	9,792	9,637	1,831	1,942	1,775	18,69%	19,83%	18,42%
75	1,01	1,00	1,00	0,215	0,217	0,204	1,58	1,59	1,59	10,638	10,480	10,480	2,247	2,274	2,136	21,12%	21,70%	20,38%
80	1,01	1,02	1,01	0,265	0,265	0,270	1,62	1,63	1,65	11,326	11,488	11,326	2,774	2,774	2,829	24,49%	24,14%	24,98%
85	1,02	1,00	1,00	0,313	0,299	0,297	1,71	1,71	1,73	12,175	11,857	11,702	3,273	3,134	3,107	26,88%	26,43%	26,55%
90	1,01	1,00	0,99	0,363	0,350	0,331	1,78	1,77	1,80	12,702	12,545	12,239	3,800	3,661	3,467	29,91%	29,18%	28,33%

Tabel Hasil Pengolahan Data Turbin Air Helikal Jumlah Sudu 4

Debit (m ³ /jam)	Vs (m/s)			Torsi (Nm)			Rasio U/Vs			WHP (Watt)			BHP (Watt)			Efisiensi (%)		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
50	0,85	0,89	0,87	0,058	0,064	0,066	1,20	1,15	1,20	5,057	5,466	5,256	0,610	0,666	0,693	12,07%	12,18%	13,19%
55	0,88	0,90	0,91	0,082	0,082	0,093	1,21	1,19	1,19	5,916	6,133	6,363	0,860	0,860	0,971	14,53%	14,02%	15,26%
60	0,93	0,93	0,94	0,111	0,098	0,122	1,18	1,19	1,29	7,160	7,160	7,285	1,165	1,026	1,276	16,27%	14,33%	17,51%
65	0,97	0,95	0,97	0,140	0,135	0,156	1,21	1,23	1,28	8,507	8,230	8,507	1,470	1,415	1,636	17,28%	17,19%	19,24%
70	1,00	0,96	1,00	0,193	0,178	0,204	1,21	1,29	1,26	9,637	9,053	9,637	2,025	1,858	2,136	21,01%	20,53%	22,16%
75	0,98	0,97	1,00	0,225	0,209	0,233	1,25	1,27	1,26	10,026	9,882	10,480	2,358	2,191	2,441	23,51%	22,17%	23,29%
80	0,99	0,98	1,01	0,265	0,276	0,268	1,27	1,29	1,28	10,863	10,714	11,326	2,774	2,885	2,801	25,53%	26,92%	24,73%
85	0,98	0,99	1,00	0,297	0,302	0,302	1,32	1,32	1,33	11,257	11,551	11,702	3,107	3,162	3,162	27,60%	27,37%	27,02%
90	0,98	0,98	0,99	0,358	0,358	0,363	1,38	1,37	1,37	11,944	12,090	12,239	3,744	3,744	3,800	31,35%	30,97%	31,05%

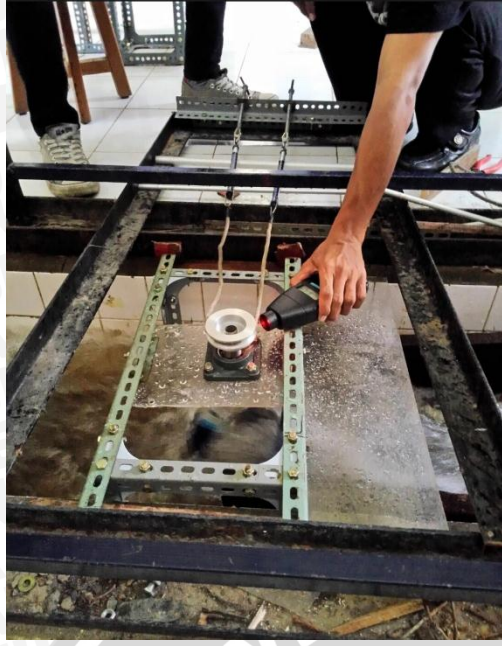
Tabel Hasil Pengolahan Data Turbin Air Helikal Jumlah Sudu 5

Debit (m ³ /jam)	Vs (m/s)			Torsi (Nm)			Rasio U/Vs			WHP (Watt)			BHP (Watt)			Efisiensi (%)		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
50	0,90	0,89	0,88	0,080	0,085	0,082	1,16	1,13	1,17	5,576	5,466	5,359	0,832	0,888	0,860	14,92%	16,24%	16,04%
55	0,91	0,90	0,91	0,101	0,098	0,098	1,16	1,17	1,20	6,363	6,133	6,363	1,054	1,026	1,026	16,57%	16,73%	16,13%
60	0,93	0,93	0,92	0,127	0,130	0,130	1,17	1,17	1,21	7,160	7,160	7,039	1,331	1,359	1,359	18,59%	18,98%	19,31%
65	0,92	0,95	0,93	0,156	0,178	0,159	1,20	1,19	1,22	7,716	8,097	7,840	1,636	1,858	1,664	21,21%	22,95%	21,23%
70	0,94	0,96	0,96	0,212	0,225	0,215	1,21	1,21	1,22	8,649	8,916	9,053	2,219	2,358	2,247	25,65%	26,44%	24,82%
75	0,96	0,97	0,97	0,260	0,249	0,246	1,23	1,22	1,23	9,601	9,882	9,882	2,718	2,607	2,580	28,31%	26,39%	26,10%
80	0,99	0,98	0,99	0,310	0,321	0,305	1,25	1,26	1,25	10,863	10,714	10,863	3,245	3,356	3,190	29,87%	31,32%	29,36%
85	0,98	0,99	1,00	0,345	0,363	0,347	1,28	1,28	1,28	11,402	11,551	11,702	3,606	3,800	3,634	31,62%	32,90%	31,05%
90	1,00	1,01	1,00	0,392	0,413	0,398	1,31	1,30	1,32	12,391	12,702	12,545	4,105	4,327	4,161	33,13%	34,06%	33,16%

Lampiran 2

Gambar Dokumentasi Penelitian





AS BRAWIJAYA

