

LAMPIRAN

Tabel L.1 Jadwal Penelitian

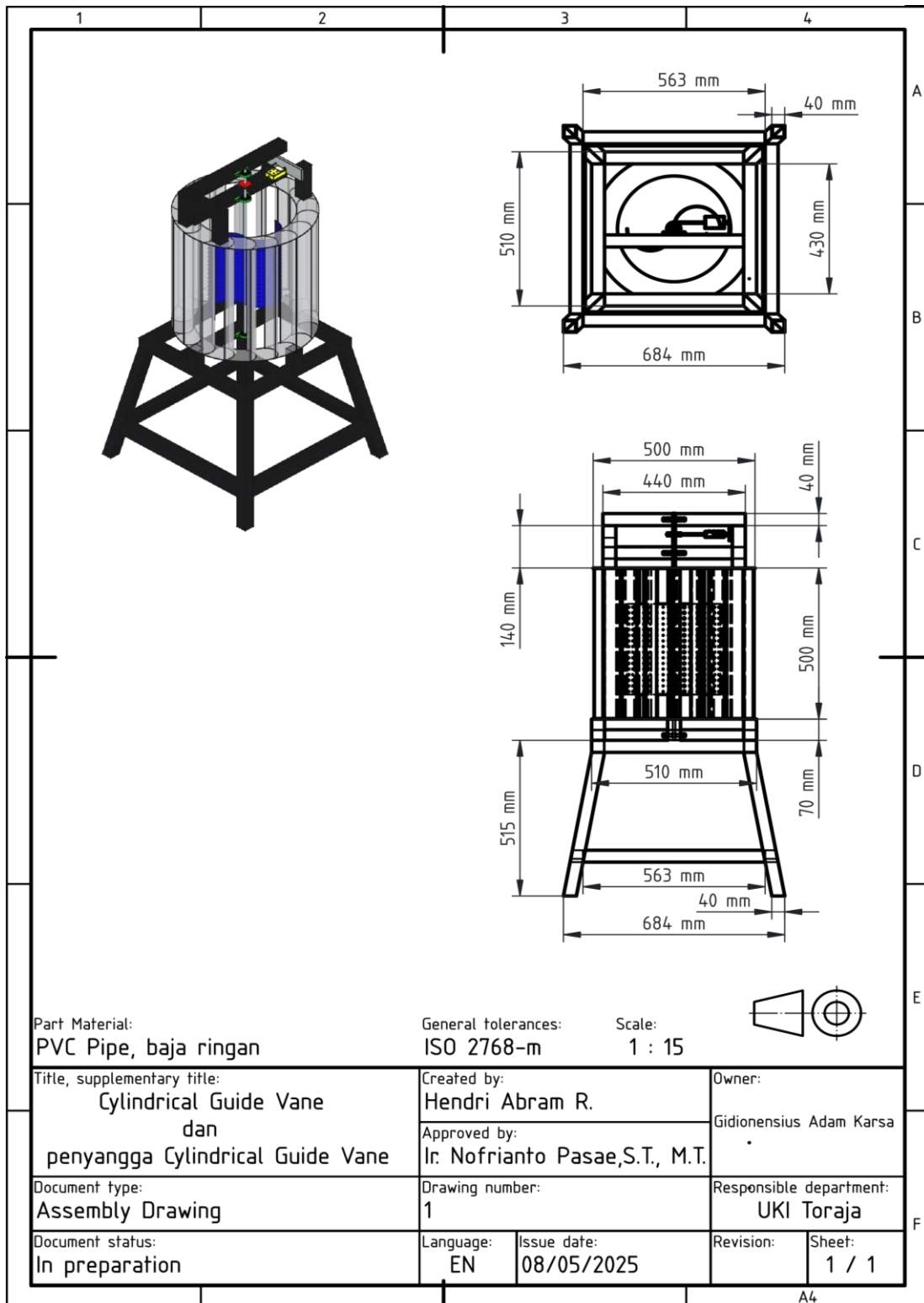
No	Urutan Penelitian	Bulan ke-					
		I	II	III	IV	V	VI
1	Studi Pustaka						
2	Seminar Proposal						
3	Pembuatan turbin angin Savonius dua sudu dengan variasi diameter <i>dimple</i>						
4	Pengambilan Data						
5	Pengolahan Data						
6	Seminar Hasil						
7	Ujian Tugas Akhir						

Tabel L.2 Sifat Fisik Zat

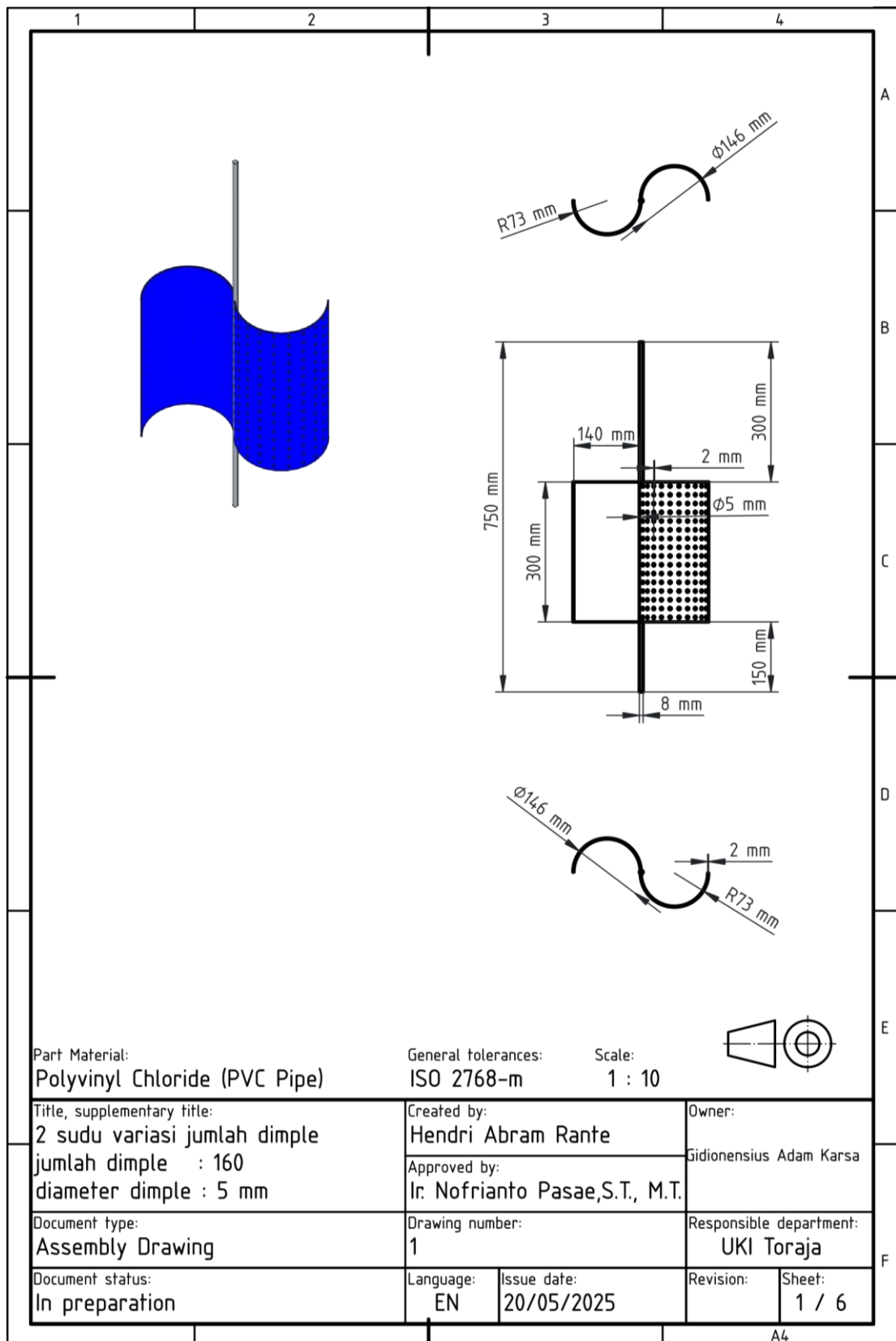
PROPERTY TABLES AND CHARTS							
TABLE A-9							
Properties of air at 1 atm pressure							
Temp. $T, ^\circ\text{C}$	Density $\rho, \text{kg/m}^3$	Specific Heat c_p $\text{J/kg}\cdot\text{K}$	Thermal Conductivity $k, \text{W/m}\cdot\text{K}$	Thermal Diffusivity $\alpha, \text{m}^2/\text{s}$	Dynamic Viscosity $\mu, \text{kg/m}\cdot\text{s}$	Kinematic Viscosity $\nu, \text{m}^2/\text{s}$	Prandtl Number Pr
-150	2.866	983	0.01171	4.158×10^{-4}	8.636×10^{-4}	3.013×10^{-6}	0.7246
-100	2.038	906	0.01582	8.036×10^{-4}	1.189×10^{-3}	5.837×10^{-6}	0.7263
-50	1.582	999	0.01979	1.252×10^{-3}	1.474×10^{-3}	9.319×10^{-6}	0.7440
-40	1.514	1002	0.02057	1.356×10^{-3}	1.527×10^{-3}	1.008×10^{-5}	0.7436
-30	1.451	1004	0.02134	1.465×10^{-3}	1.579×10^{-3}	1.087×10^{-5}	0.7425
-20	1.394	1006	0.02211	1.578×10^{-3}	1.630×10^{-3}	1.169×10^{-5}	0.7408
-10	1.341	1006	0.02288	1.696×10^{-3}	1.680×10^{-3}	1.252×10^{-5}	0.7387
0	1.292	1006	0.02364	1.818×10^{-3}	1.729×10^{-3}	1.338×10^{-5}	0.7362
5	1.269	1006	0.02401	1.880×10^{-3}	1.754×10^{-3}	1.382×10^{-5}	0.7350
10	1.246	1006	0.02439	1.944×10^{-3}	1.778×10^{-3}	1.426×10^{-5}	0.7336
15	1.225	1007	0.02476	2.009×10^{-3}	1.802×10^{-3}	1.470×10^{-5}	0.7323
20	1.204	1007	0.02514	2.074×10^{-3}	1.825×10^{-3}	1.516×10^{-5}	0.7309
25	1.184	1007	0.02551	2.141×10^{-3}	1.849×10^{-3}	1.562×10^{-5}	0.7296
30	1.164	1007	0.02588	2.208×10^{-3}	1.872×10^{-3}	1.608×10^{-5}	0.7282
35	1.145	1007	0.02625	2.277×10^{-3}	1.895×10^{-3}	1.655×10^{-5}	0.7268
40	1.127	1007	0.02662	2.346×10^{-3}	1.918×10^{-3}	1.702×10^{-5}	0.7255
45	1.109	1007	0.02699	2.416×10^{-3}	1.941×10^{-3}	1.750×10^{-5}	0.7241
50	1.092	1007	0.02735	2.487×10^{-3}	1.963×10^{-3}	1.798×10^{-5}	0.7228
60	1.059	1007	0.02808	2.632×10^{-3}	2.008×10^{-3}	1.896×10^{-5}	0.7202
70	1.028	1007	0.02881	2.780×10^{-3}	2.052×10^{-3}	1.995×10^{-5}	0.7177
80	0.9994	1008	0.02953	2.931×10^{-3}	2.096×10^{-3}	2.097×10^{-5}	0.7154
90	0.9718	1008	0.03024	3.086×10^{-3}	2.139×10^{-3}	2.201×10^{-5}	0.7132
100	0.9458	1009	0.03095	3.243×10^{-3}	2.181×10^{-3}	2.306×10^{-5}	0.7111
120	0.8977	1011	0.03235	3.565×10^{-3}	2.264×10^{-3}	2.522×10^{-5}	0.7073
140	0.8542	1013	0.03374	3.898×10^{-3}	2.345×10^{-3}	2.745×10^{-5}	0.7041
160	0.8148	1016	0.03511	4.241×10^{-3}	2.420×10^{-3}	2.975×10^{-5}	0.7014
180	0.7788	1019	0.03646	4.593×10^{-3}	2.504×10^{-3}	3.212×10^{-5}	0.6992
200	0.7459	1023	0.03779	4.954×10^{-3}	2.577×10^{-3}	3.455×10^{-5}	0.6974
250	0.6746	1039	0.04104	5.890×10^{-3}	2.760×10^{-3}	4.091×10^{-5}	0.6946
300	0.6158	1044	0.04418	6.871×10^{-3}	2.934×10^{-3}	4.765×10^{-5}	0.6935
350	0.5664	1056	0.04721	7.892×10^{-3}	3.101×10^{-3}	5.475×10^{-5}	0.6937
400	0.5243	1069	0.05015	8.951×10^{-3}	3.261×10^{-3}	6.219×10^{-5}	0.6948
450	0.4880	1081	0.05298	1.004×10^{-2}	3.415×10^{-3}	6.997×10^{-5}	0.6965
500	0.4565	1093	0.05572	1.117×10^{-2}	3.563×10^{-3}	7.806×10^{-5}	0.6986
600	0.4042	1115	0.06093	1.352×10^{-2}	3.846×10^{-3}	9.515×10^{-5}	0.7037
700	0.3627	1135	0.06581	1.598×10^{-2}	4.111×10^{-3}	1.133×10^{-4}	0.7092
800	0.3289	1153	0.07037	1.855×10^{-2}	4.362×10^{-3}	1.326×10^{-4}	0.7149
900	0.3008	1169	0.07465	2.122×10^{-2}	4.600×10^{-3}	1.529×10^{-4}	0.7206
1000	0.2772	1184	0.07868	2.398×10^{-2}	4.826×10^{-3}	1.741×10^{-4}	0.7260
1500	0.1990	1234	0.09599	3.908×10^{-2}	5.817×10^{-3}	2.922×10^{-4}	0.7475
2000	0.1553	1264	0.11113	5.664×10^{-2}	6.630×10^{-3}	4.270×10^{-4}	0.7539

Note: For ideal gases, the properties c_p , k , μ , and Pr are independent of pressure. The properties ρ , ν , and α at a pressure P (in atm) other than 1 atm are determined by multiplying the values of ρ at the given temperature by P and by dividing ν and α by P .

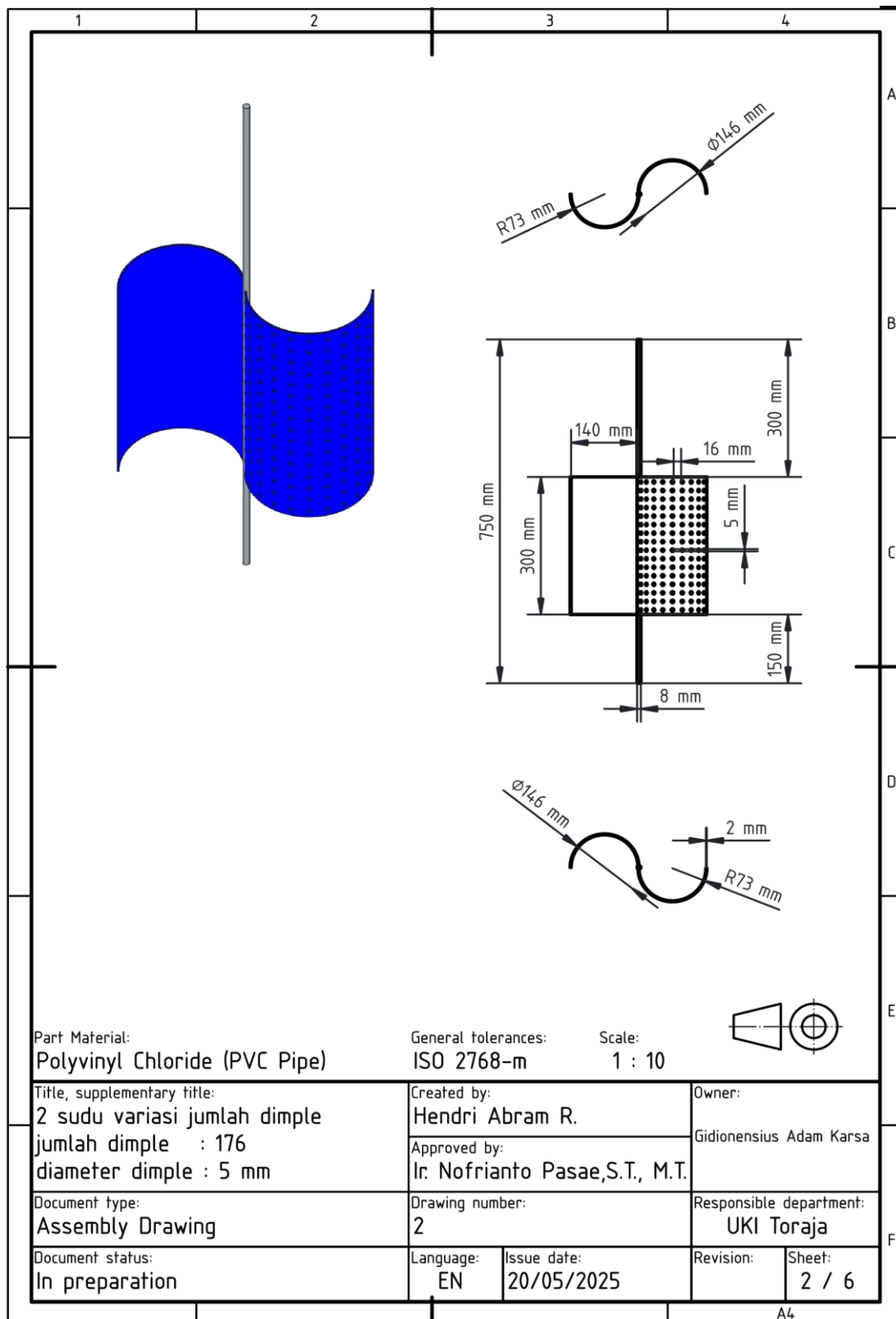
Source: Data generated from the EES software developed by S. A. Klein and F. L. Alvarado. Original sources: Keenan, Chao, Keyes, Gas Tables, Wiley, 1983; and Thermophysical Properties of Matter, Vol. 3: Thermal Conductivity, Y. S. Touloukian, P. E. Liley, S. C. Saxena, Vol. 13: Viscosity, Y. S. Touloukian, S. C. Saxena, and P. Hestermann, IFI/Plenum, NY, 1970, ISBN 0-306067027-8.



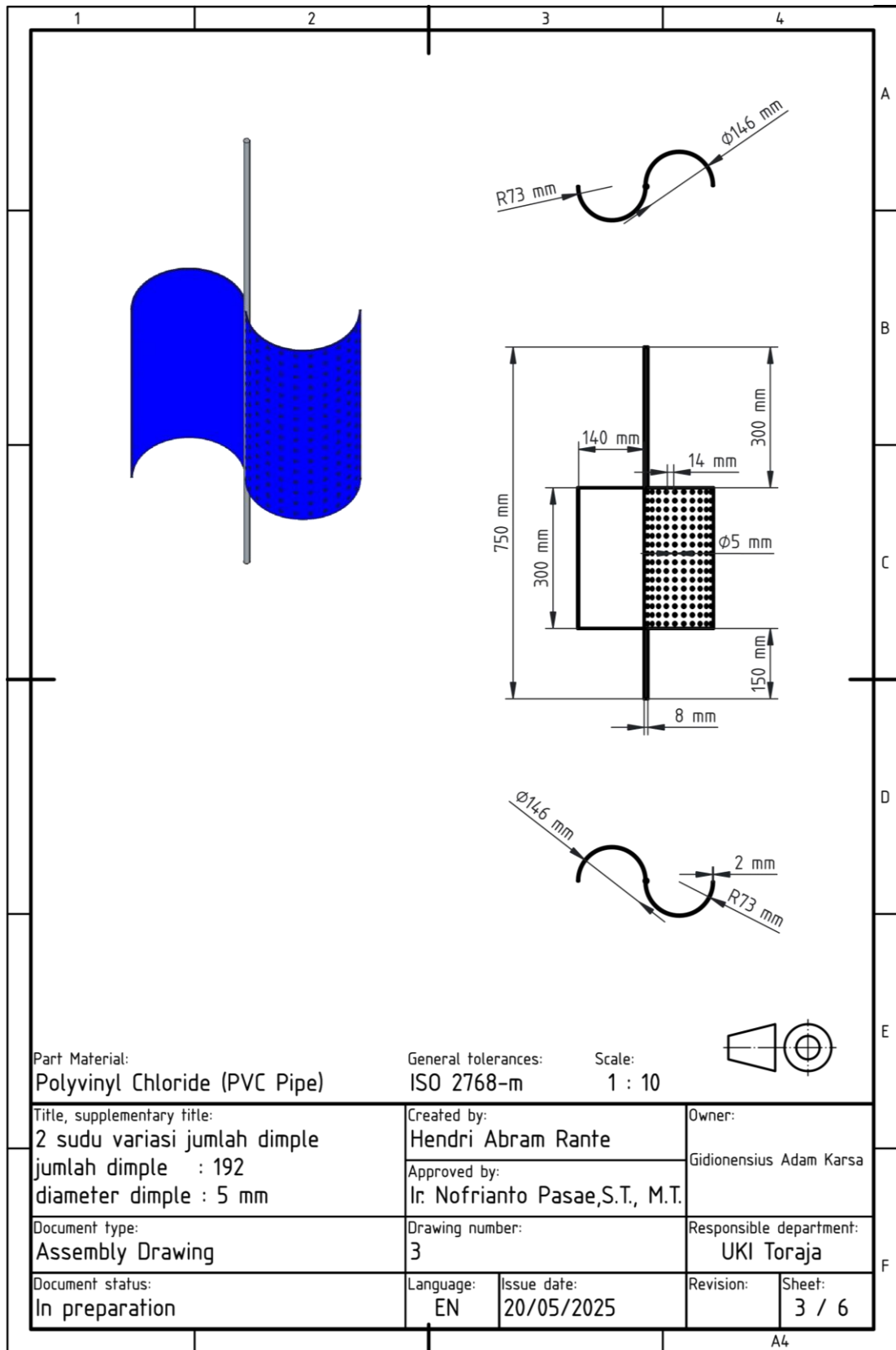
Gambar L.2 Rangka *Cylindrical Guide Vane*



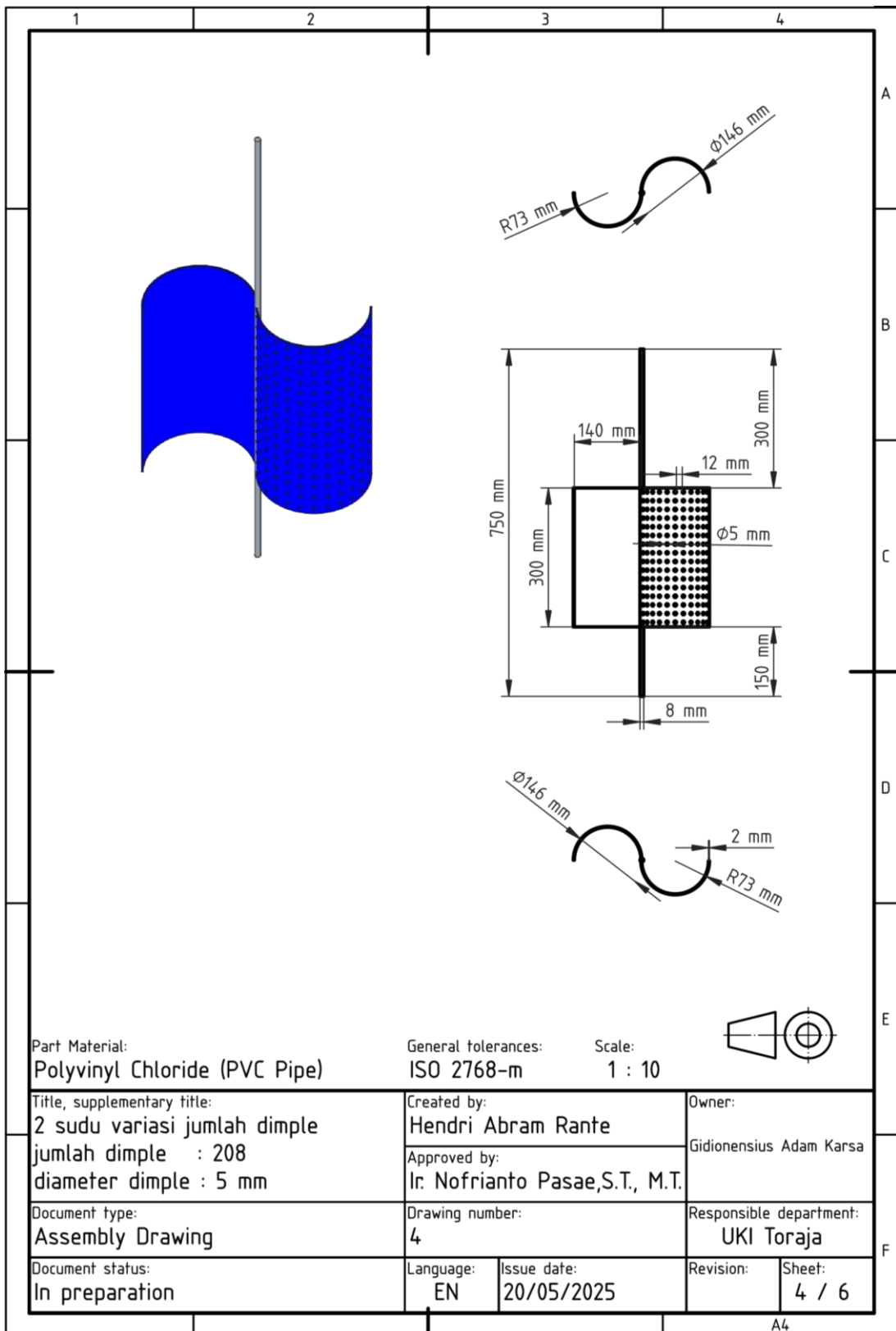
Gambar L.3 Dua Sudu Jumlah Dimple 320



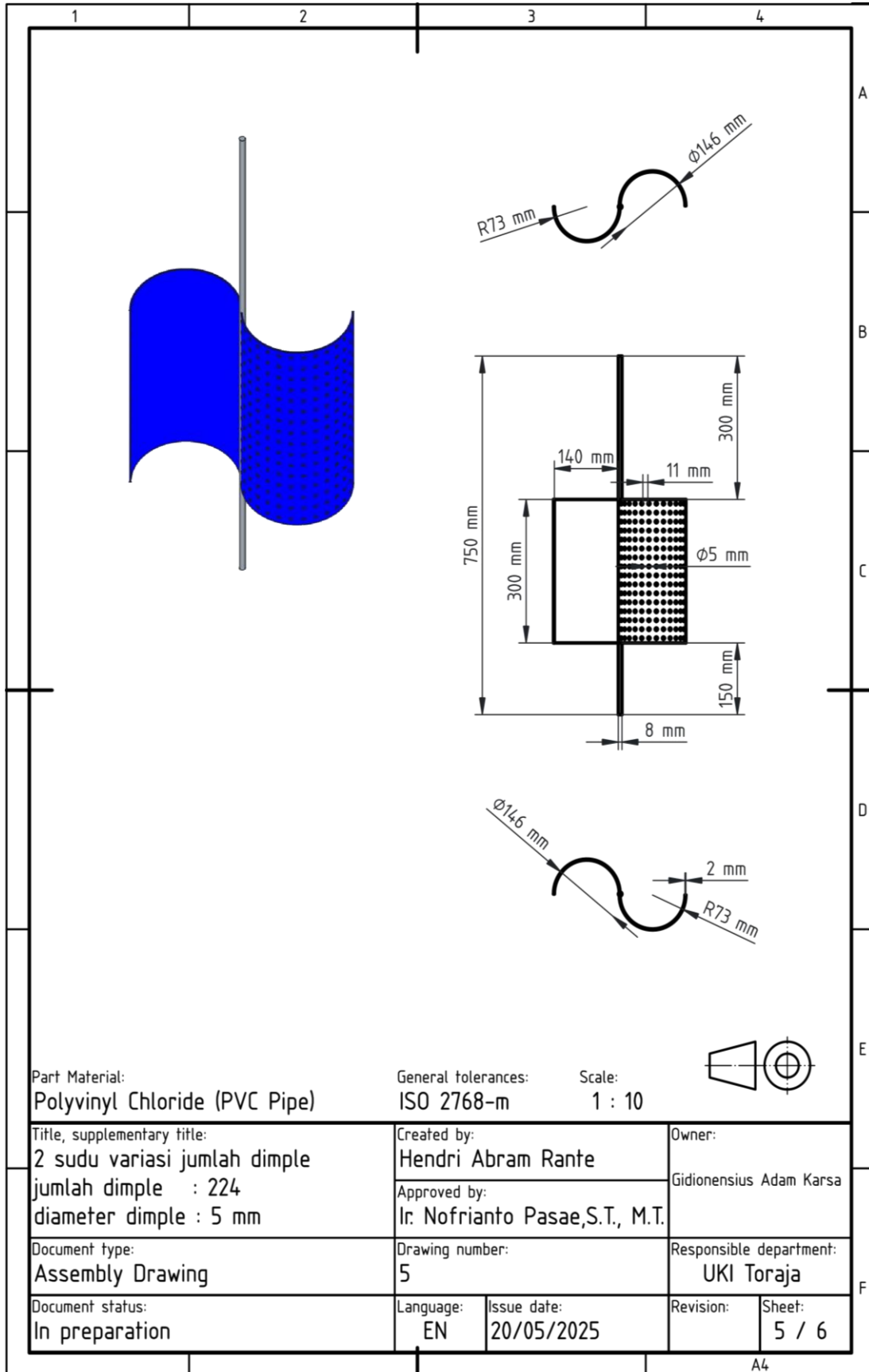
Gambar L.4 Dua Sudu Jumlah Dimple 352



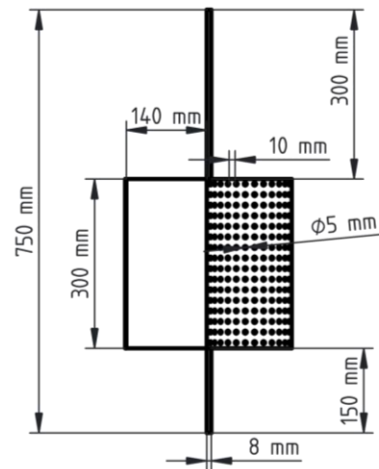
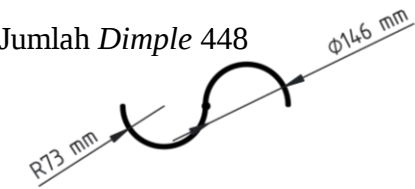
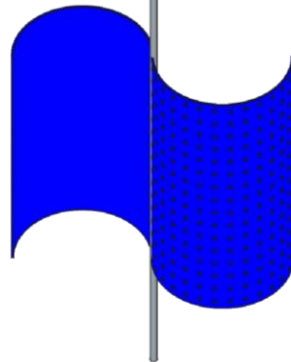
Gambar L.5 Dua Sudu Jumlah *Dimple* 384



Gambar L.6 Dua Sudu Jumlah Dimple 416



Gambar L.7 Dua Sudu Jumlah Dimple 448



Part Material:
Polyvinyl Chloride (PVC Pipe)

General tolerances:
ISO 2768-m

Scale:
1 : 10

Title, supplementary title:
2 sudu variasi jumlah dimple
jumlah dimple : 240
diameter dimple : 5 mm

Created by:
Hendri Abram Rante

Owner:
Gidionensius Adam Karsa

Approved by:
Ir. Nofrianto Pasae, S.T., M.T.

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Gambar L.8 Dua Sudu Jumlah *Dimple* 480

Tabel L.3 Data kecepatan angin rata-rata dan temperatur pada data logger

NO	Kecepatan angin	Satuan	Temperatur Angin	Satuan	Waktu	Tanggal
1	10,410	m/s	24	°C	19.11.22	09-08-2025
2	10,424	m/s	24	°C	19.11.29	09-08-2025
9	10,289	m/s	24	°C	19.11.24	09-08-2025
4	10,279	m/s	24	°C	19.11.25	09-08-2025
5	10,277	m/s	24	°C	19.11.26	09-08-2025
6	10,441	m/s	24	°C	19.11.27	09-08-2025
7	10,420	m/s	24	°C	19.11.28	09-08-2025
8	10,998	m/s	24	°C	19.11.29	09-08-2025
9	10,506	m/s	24	°C	19.11.90	09-08-2025
10	10,616	m/s	24	°C	19.11.91	09-08-2025
11	10,719	m/s	24	°C	19.11.92	09-08-2025
12	10,721	m/s	24	°C	19.11.99	09-08-2025
19	10,557	m/s	24	°C	19.11.94	09-08-2025
14	10,489	m/s	24	°C	19.11.95	09-08-2025
15	10,589	m/s	24	°C	19.11.96	09-08-2025
16	10,626	m/s	24	°C	19.11.97	09-08-2025
17	10,582	m/s	24	°C	19.11.98	09-08-2025
18	10,529	m/s	24	°C	19.11.99	09-08-2025
19	10,484	m/s	24	°C	19.11.40	09-08-2025
20	10,514	m/s	24	°C	19.11.41	09-08-2025
21	10,597	m/s	24	°C	19.11.42	09-08-2025
22	10,587	m/s	24	°C	19.11.49	09-08-2025
29	10,551	m/s	24	°C	19.11.44	09-08-2025
24	10,410	m/s	24	°C	19.11.45	09-08-2025

25	10,941	m/s	24	°C	19.11.46	09-08-2025
26	10,460	m/s	24	°C	19.11.47	09-08-2025
27	10,599	m/s	24	°C	19.11.48	09-08-2025
28	10,445	m/s	24	°C	19.11.49	09-08-2025
29	10,926	m/s	24	°C	19.11.50	09-08-2025
90	10,220	m/s	24	°C	19.11.51	09-08-2025
	10,480		24			

Tabel L.4 Data Pengukuran Beban Dan Putaran Turbin Angin Savonius Dua Sudu Tanpa *Dimple*

Tanpa beban			0.5 kg		1 kg		1.5 kg		2 kg		2.5 kg	
No.	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
1	438,54	2025-07-28 13:43:47.311	409,18	2025-07-28 13:46:14.082	389,16	2025-07-28 13:47:43.505	338,55	2025-07-28 13:49:01.263	337,18	2025-07-28 13:54:08.244	291,66	2025-07-28 13:55:38.207
2	440,24	2025-07-28 13:43:47.763	414,88	2025-07-28 13:46:14.568	394,56	2025-07-28 13:47:44.042	338,55	2025-07-28 13:49:01.754	326,88	2025-07-28 13:54:08.749	291,66	2025-07-28 13:55:38.710
3	440,24	2025-07-28 13:43:48.270	414,88	2025-07-28 13:46:15.072	394,56	2025-07-28 13:47:44.516	338,55	2025-07-28 13:49:02.243	326,88	2025-07-28 13:54:09.269	291,66	2025-07-28 13:55:39.197
4	444,44	2025-07-28 13:43:48.756	414,88	2025-07-28 13:46:15.575	394,56	2025-07-28 13:47:45.005	343,65	2025-07-28 13:49:02.748	319,28	2025-07-28 13:54:09.754	295,06	2025-07-28 13:55:39.704
5	444,44	2025-07-28 13:43:49.259	415,68	2025-07-28 13:46:16.079	395,76	2025-07-28 13:47:45.507	343,65	2025-07-28 13:49:03.251	319,28	2025-07-28 13:54:10.243	295,06	2025-07-28 13:55:40.204
6	442,44	2025-07-28 13:43:49.763	415,68	2025-07-28 13:46:16.566	395,76	2025-07-28 13:47:46.012	348,45	2025-07-28 13:49:03.754	318,78	2025-07-28 13:54:10.747	300,96	2025-07-28 13:55:40.711
7	442,44	2025-07-28 13:43:50.266	418,58	2025-07-28 13:46:17.071	391,36	2025-07-28 13:47:46.516	348,45	2025-07-28 13:49:04.243	318,78	2025-07-28 13:54:11.251	300,96	2025-07-28 13:55:41.215
8	437,74	2025-07-28 13:43:50.772	418,58	2025-07-28 13:46:17.573	391,36	2025-07-28 13:47:47.018	353,25	2025-07-28 13:49:04.746	325,18	2025-07-28 13:54:11.755	307,96	2025-07-28 13:55:41.699
9	437,74	2025-07-28 13:43:51.258	421,48	2025-07-28 13:46:18.077	384,36	2025-07-28 13:47:47.524	353,25	2025-07-28 13:49:05.250	325,18	2025-07-28 13:54:12.244	307,96	2025-07-28 13:55:42.205
10	440,74	2025-07-28 13:43:51.763	421,48	2025-07-28 13:46:18.565	384,36	2025-07-28 13:47:48.007	359,45	2025-07-28 13:49:05.752	326,68	2025-07-28 13:54:12.746	311,46	2025-07-28 13:55:42.709
11	440,74	2025-07-28 13:43:52.265	420,78	2025-07-28 13:46:19.070	384,76	2025-07-28 13:47:48.511	359,45	2025-07-28 13:49:06.237	326,68	2025-07-28 13:54:13.251	311,46	2025-07-28 13:55:43.212
12	450,94	2025-07-28 13:43:52.770	420,78	2025-07-28 13:46:19.590	384,76	2025-07-28 13:47:49.019	360,75	2025-07-28 13:49:06.746	328,38	2025-07-28 13:54:13.768	306,96	2025-07-28 13:55:43.701
13	450,94	2025-07-28 13:43:53.257	422,48	2025-07-28 13:46:20.075	393,56	2025-07-28 13:47:49.504	360,75	2025-07-28 13:49:07.247	328,38	2025-07-28 13:54:14.257	306,96	2025-07-28 13:55:44.204
14	450,94	2025-07-28 13:43:53.763	422,48	2025-07-28 13:46:20.581	393,56	2025-07-28 13:47:50.010	360,75	2025-07-28 13:49:07.752	328,38	2025-07-28 13:54:14.745	306,96	2025-07-28 13:55:44.708
15	459,64	2025-07-28 13:43:54.264	424,58	2025-07-28 13:46:21.070	396,06	2025-07-28 13:47:50.513	359,85	2025-07-28 13:49:08.257	331,18	2025-07-28 13:54:15.264	302,96	2025-07-28 13:55:45.211
16	459,64	2025-07-28 13:43:54.770	424,58	2025-07-28 13:46:21.574	396,06	2025-07-28 13:47:51.015	359,85	2025-07-28 13:49:08.744	331,18	2025-07-28 13:54:15.768	302,96	2025-07-28 13:55:45.697
17	458,74	2025-07-28 13:43:55.255	424,98	2025-07-28 13:46:22.080	396,06	2025-07-28 13:47:51.502	362,85	2025-07-28 13:49:09.247	328,28	2025-07-28 13:54:16.258	301,76	2025-07-28 13:55:46.201
18	458,74	2025-07-28 13:43:55.762	424,98	2025-07-28 13:46:22.580	394,06	2025-07-28 13:47:52.009	362,85	2025-07-28 13:49:09.752	328,28	2025-07-28 13:54:16.746	301,76	2025-07-28 13:55:46.707
19	452,84	2025-07-28 13:43:56.266	425,28	2025-07-28 13:46:23.070	394,06	2025-07-28 13:47:52.512	367,05	2025-07-28 13:49:10.255	325,88	2025-07-28 13:54:17.247	298,96	2025-07-28 13:55:47.209
20	452,84	2025-07-28 13:43:56.770	425,28	2025-07-28 13:46:23.574	396,86	2025-07-28 13:47:53.014	367,05	2025-07-28 13:49:10.742	325,88	2025-07-28 13:54:17.753	298,96	2025-07-28 13:55:47.713
21	447,44	2025-07-28 13:43:57.257	423,18	2025-07-28 13:46:24.078	396,86	2025-07-28 13:47:53.517	369,95	2025-07-28 13:49:11.246	332,48	2025-07-28 13:54:18.257	293,06	2025-07-28 13:55:48.200
22	447,44	2025-07-28 13:43:57.760	423,18	2025-07-28 13:46:24.597	399,96	2025-07-28 13:47:54.008	369,95	2025-07-28 13:49:11.750	332,48	2025-07-28 13:54:18.744	293,06	2025-07-28 13:55:48.704
23	447,44	2025-07-28 13:43:58.263	423,08	2025-07-28 13:46:25.068	399,96	2025-07-28 13:47:54.509	369,85	2025-07-28 13:49:12.253	341,08	2025-07-28 13:54:19.247	293,06	2025-07-28 13:55:49.208
24	445,34	2025-07-28 13:43:58.765	423,08	2025-07-28 13:46:25.572	402,46	2025-07-28 13:47:55.011	369,85	2025-07-28 13:49:12.742	341,08	2025-07-28 13:54:19.749	287,86	2025-07-28 13:55:49.712
25	445,34	2025-07-28 13:43:59.270	424,18	2025-07-28 13:46:26.077	402,46	2025-07-28 13:47:55.551	368,15	2025-07-28 13:49:13.245	340,08	2025-07-28 13:54:20.287	287,86	2025-07-28 13:55:50.200
26	447,34	2025-07-28 13:43:59.759	424,18	2025-07-28 13:46:26.580	402,46	2025-07-28 13:47:56.004	368,15	2025-07-28 13:49:13.747	340,08	2025-07-28 13:54:20.759	290,36	2025-07-28 13:55:50.702
27	447,34	2025-07-28 13:44:00.263	424,38	2025-07-28 13:46:27.084	401,96	2025-07-28 13:47:56.510	366,25	2025-07-28 13:49:14.249	329,78	2025-07-28 13:54:21.245	290,36	2025-07-28 13:55:51.206
28	451,14	2025-07-28 13:44:00.767	424,38	2025-07-28 13:46:27.572	401,96	2025-07-28 13:47:57.014	366,25	2025-07-28 13:49:14.739	329,78	2025-07-28 13:54:21.749	292,26	2025-07-28 13:55:51.710
29	451,14	2025-07-28 13:44:01.267	425,28	2025-07-28 13:46:28.074	400,66	2025-07-28 13:47:57.515	366,45	2025-07-28 13:49:15.244	321,98	2025-07-28 13:54:22.252	292,26	2025-07-28 13:55:52.197
30	453,34	2025-07-28 13:44:01.774	425,28	2025-07-28 13:46:28.576	400,66	2025-07-28 13:47:58.005	366,45	2025-07-28 13:49:15.745	321,98	2025-07-28 13:54:22.758	292,26	2025-07-28 13:55:52.701
	447,61		421,39		395,17		358,94		328,58		298,22	

3 kg		3.5 kg		4 kg		4,5 kg		5 kg		5,5 kg		6 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
241,97	2025-07-28 13:57:03.176	170,76	2025-07-28 14:06:31.395	163,61	2025-07-28 14:01:46.133	125,20	2025-07-28 14:08:09.142	88,98	2025-07-28 14:13:17.204	76,17	2025-07-28 14:14:33.030	0	2025-07-29 10:43:46.520
241,97	2025-07-28 13:57:03.680	178,86	2025-07-28 14:06:31.897	163,61	2025-07-28 14:01:46.636	125,20	2025-07-28 14:08:09.646	88,98	2025-07-28 14:13:17.740	76,17	2025-07-28 14:14:33.531	0	2025-07-29 10:43:47.023
241,97	2025-07-28 13:57:04.203	178,86	2025-07-28 14:06:32.386	163,61	2025-07-28 14:01:47.124	125,20	2025-07-28 14:08:10.149	88,98	2025-07-28 14:13:18.195	76,17	2025-07-28 14:14:34.022	0	2025-07-29 10:43:47.527
238,97	2025-07-28 13:57:04.688	178,86	2025-07-28 14:06:32.889	166,51	2025-07-28 14:01:47.629	120,21	2025-07-28 14:08:10.652	93,84	2025-07-28 14:13:18.716	74,67	2025-07-28 14:14:34.524	0	2025-07-29 10:43:48.017
238,97	2025-07-28 13:57:05.176	245,96	2025-07-28 14:06:33.395	166,51	2025-07-28 14:01:48.135	120,21	2025-07-28 14:08:11.156	93,84	2025-07-28 14:13:19.185	74,67	2025-07-28 14:14:35.026	0	2025-07-29 10:43:48.519
241,17	2025-07-28 13:57:05.679	245,96	2025-07-28 14:06:33.895	165,31	2025-07-28 14:01:48.621	117,34	2025-07-28 14:08:11.673	93,84	2025-07-28 14:13:19.704	74,67	2025-07-28 14:14:35.531	0	2025-07-29 10:43:49.038
241,17	2025-07-28 13:57:06.201	237,46	2025-07-28 14:06:34.403	165,31	2025-07-28 14:01:49.125	117,34	2025-07-28 14:08:12.149	97,85	2025-07-28 14:13:20.193	74,67	2025-07-28 14:14:36.053	0	2025-07-29 10:43:49.525
250,17	2025-07-28 13:57:06.689	237,46	2025-07-28 14:06:34.888	165,41	2025-07-28 14:01:49.629	117,34	2025-07-28 14:08:12.649	97,85	2025-07-28 14:13:20.699	79,01	2025-07-28 14:14:36.525	0	2025-07-29 10:43:50.012
250,17	2025-07-28 13:57:07.175	234,46	2025-07-28 14:06:35.393	165,41	2025-07-28 14:01:50.132	116,27	2025-07-28 14:08:13.156	97,85	2025-07-28 14:13:21.183	79,01	2025-07-28 14:14:37.028	0	2025-07-29 10:43:50.518
259,27	2025-07-28 13:57:07.680	234,46	2025-07-28 14:06:35.897	165,41	2025-07-28 14:01:50.618	116,27	2025-07-28 14:08:13.642	101,60	2025-07-28 14:13:21.690	79,01	2025-07-28 14:14:37.531	0	2025-07-29 10:43:51.021
259,27	2025-07-28 13:57:08.184	234,46	2025-07-28 14:06:36.398	165,01	2025-07-28 14:01:51.123	116,30	2025-07-28 14:08:14.148	101,60	2025-07-28 14:13:22.192	79,01	2025-07-28 14:14:38.035	0	2025-07-29 10:43:51.525
261,27	2025-07-28 13:57:08.687	215,56	2025-07-28 14:06:36.888	165,01	2025-07-28 14:01:51.628	116,30	2025-07-28 14:08:14.647	101,60	2025-07-28 14:13:22.696	75,24	2025-07-28 14:14:38.522	0	2025-07-29 10:43:52.028
261,27	2025-07-28 13:57:09.170	215,56	2025-07-28 14:06:37.391	160,91	2025-07-28 14:01:52.129	116,30	2025-07-28 14:08:15.155	104,84	2025-07-28 14:13:23.185	75,24	2025-07-28 14:14:39.025	0	2025-07-29 10:43:52.516
261,27	2025-07-28 13:57:09.676	211,96	2025-07-28 14:06:37.893	160,91	2025-07-28 14:01:52.633	120,06	2025-07-28 14:08:15.639	104,84	2025-07-28 14:13:23.688	69,51	2025-07-28 14:14:39.530	0	2025-07-29 10:43:53.019
258,47	2025-07-28 13:57:10.183	211,96	2025-07-28 14:06:38.397	160,81	2025-07-28 14:01:53.121	120,06	2025-07-28 14:08:16.145	107,31	2025-07-28 14:13:24.190	69,51	2025-07-28 14:14:40.035	0	2025-07-29 10:43:53.524
258,47	2025-07-28 13:57:10.684	231,66	2025-07-28 14:06:38.903	160,81	2025-07-28 14:01:53.640	131,20	2025-07-28 14:08:16.647	107,31	2025-07-28 14:13:24.695	67,76	2025-07-28 14:14:40.522	0	2025-07-29 10:43:54.044
262,27	2025-07-28 13:57:11.187	231,66	2025-07-28 14:06:39.388	164,51	2025-07-28 14:01:54.160	131,20	2025-07-28 14:08:17.152	107,31	2025-07-28 14:13:25.200	67,76	2025-07-28 14:14:41.023	0	2025-07-29 10:43:54.515
262,27	2025-07-28 13:57:11.676	238,16	2025-07-28 14:06:39.892	164,51	2025-07-28 14:01:54.634	141,50	2025-07-28 14:08:17.639	105,59	2025-07-28 14:13:25.688	68,67	2025-07-28 14:14:41.529	0	2025-07-29 10:43:55.019
262,27	2025-07-28 13:57:12.180	238,16	2025-07-28 14:06:40.397	164,51	2025-07-28 14:01:55.121	141,50	2025-07-28 14:08:18.145	105,59	2025-07-28 14:13:26.189	68,67	2025-07-28 14:14:42.031	0	2025-07-29 10:43:55.523
267,67	2025-07-28 13:57:12.685	237,86	2025-07-28 14:06:40.882	172,81	2025-07-28 14:01:55.642	141,50	2025-07-28 14:08:18.649	105,59	2025-07-28 14:13:26.696	68,67	2025-07-28 14:14:42.520	0	2025-07-29 10:43:56.028
267,67	2025-07-28 13:57:13.187	237,86	2025-07-28 14:06:41.388	172,81	2025-07-28 14:01:56.128	146,30	2025-07-28 14:08:19.150	104,37	2025-07-28 14:13:27.199	61,04	2025-07-28 14:14:43.022	0	2025-07-29 10:43:56.513
267,97	2025-07-28 13:57:13.675	237,86	2025-07-28 14:06:41.892	183,51	2025-07-28 14:01:56.630	146,30	2025-07-28 14:08:19.655	104,37	2025-07-28 14:13:27.685	61,04	2025-07-28 14:14:43.528	0	2025-07-29 10:43:57.017
267,97	2025-07-28 13:57:14.177	226,66	2025-07-28 14:06:42.396	183,51	2025-07-28 14:01:57.120	146,30	2025-07-28 14:08:20.142	104,37	2025-07-28 14:13:28.187	52,70	2025-07-28 14:14:44.029	0	2025-07-29 10:43:57.521
267,97	2025-07-28 13:57:14.683	226,66	2025-07-28 14:06:42.899	183,51	2025-07-28 14:01:57.625	147,70	2025-07-28 14:08:20.645	105,19	2025-07-28 14:13:28.694	52,70	2025-07-28 14:14:44.536	0	2025-07-29 10:43:58.026
268,57	2025-07-28 13:57:15.189	218,86	2025-07-28 14:06:43.389	189,21	2025-07-28 14:01:58.125	147,70	2025-07-28 14:08:21.168	105,19	2025-07-28 14:13:29.198	52,70	2025-07-28 14:14:45.024	0	2025-07-29 10:43:58.528
268,57	2025-07-28 13:57:15.675	218,86	2025-07-28 14:06:43.907	189,21	2025-07-28 14:01:58.628	147,70	2025-07-28 14:08:21.653	105,19	2025-07-28 14:13:29.684	52,06	2025-07-28 14:14:45.527	0	2025-07-29 10:43:59.019
265,37	2025-07-28 13:57:16.180	218,86	2025-07-28 14:06:44.394	192,31	2025-07-28 14:01:59.136	148,00	2025-07-28 14:08:22.143	101,76	2025-07-28 14:13:30.187	52,06	2025-07-28 14:14:46.027	0	2025-07-29 10:43:59.520
265,37	2025-07-28 13:57:16.683	216,56	2025-07-28 14:06:44.932	192,31	2025-07-28 14:01:59.621	148,00	2025-07-28 14:08:22.647	101,76	2025-07-28 14:13:30.693	52,06	2025-07-28 14:14:46.530	0	2025-07-29 10:44:00.024
265,37	2025-07-28 13:57:17.185	216,56	2025-07-28 14:06:45.387	192,31	2025-07-28 14:02:00.127	148,00	2025-07-28 14:08:23.167	101,76	2025-07-28 14:13:31.195	52,60	2025-07-28 14:14:47.022	0	2025-07-29 10:44:00.527
257,97	2025-07-28 13:57:17.689	205,86	2025-07-28 14:06:45.888	196,21	2025-07-28 14:02:00.630	150,10	2025-07-28 14:08:23.655	100,56	2025-07-28 14:13:31.700	52,60	2025-07-28 14:14:47.526	0	2025-07-29 10:44:01.016
257,44		221,16		172,18		131,75		100,99		67,19		0	

Tabel L.5 Data Pengukuran Beban Dan Putaran Turbin Angin Savonius Dua Sudu Variasi Jumlah *Dimple* 320

Tanpa beban			0.5 kg		1 kg		1.5 kg		2 kg	
No.	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
1	503,10	2025-07-29 10:43:46.520	470,60	2025-07-29 10:45:33.916	418,80	2025-07-29 10:47:13.393	407,50	2025-07-29 10:49:06.545	349,10	2025-07-29 10:51:26.462
2	501,60	2025-07-29 10:43:47.023	470,60	2025-07-29 10:45:34.423	418,80	2025-07-29 10:47:13.884	407,50	2025-07-29 10:49:07.052	368,80	2025-07-29 10:51:26.952
3	501,60	2025-07-29 10:43:47.527	470,70	2025-07-29 10:45:34.910	416,90	2025-07-29 10:47:14.387	405,30	2025-07-29 10:49:07.540	368,80	2025-07-29 10:51:27.456
4	496,60	2025-07-29 10:43:48.017	470,70	2025-07-29 10:45:35.429	416,90	2025-07-29 10:47:14.891	405,30	2025-07-29 10:49:08.060	368,80	2025-07-29 10:51:27.957
5	496,60	2025-07-29 10:43:48.519	471,70	2025-07-29 10:45:35.917	429,40	2025-07-29 10:47:15.394	399,70	2025-07-29 10:49:08.561	373,40	2025-07-29 10:51:28.462
6	496,60	2025-07-29 10:43:49.038	471,70	2025-07-29 10:45:36.421	429,40	2025-07-29 10:47:15.884	399,70	2025-07-29 10:49:09.067	373,40	2025-07-29 10:51:28.967
7	491,90	2025-07-29 10:43:49.525	473,80	2025-07-29 10:45:36.909	431,90	2025-07-29 10:47:16.388	396,20	2025-07-29 10:49:09.536	374,80	2025-07-29 10:51:29.467
8	491,90	2025-07-29 10:43:50.012	473,80	2025-07-29 10:45:37.409	431,90	2025-07-29 10:47:16.889	396,20	2025-07-29 10:49:10.043	374,80	2025-07-29 10:51:29.956
9	491,50	2025-07-29 10:43:50.518	471,30	2025-07-29 10:45:37.915	431,90	2025-07-29 10:47:17.394	392,30	2025-07-29 10:49:10.546	380,30	2025-07-29 10:51:30.457
10	491,50	2025-07-29 10:43:51.021	471,30	2025-07-29 10:45:38.419	430,00	2025-07-29 10:47:17.898	392,30	2025-07-29 10:49:11.052	380,30	2025-07-29 10:51:30.949
11	493,80	2025-07-29 10:43:51.525	466,60	2025-07-29 10:45:38.923	430,00	2025-07-29 10:47:18.387	392,00	2025-07-29 10:49:11.536	384,40	2025-07-29 10:51:31.454
12	493,80	2025-07-29 10:43:52.028	466,60	2025-07-29 10:45:39.460	428,90	2025-07-29 10:47:18.890	392,00	2025-07-29 10:49:12.040	384,40	2025-07-29 10:51:31.955
13	495,10	2025-07-29 10:43:52.516	463,90	2025-07-29 10:45:39.914	428,90	2025-07-29 10:47:19.392	394,20	2025-07-29 10:49:12.545	384,00	2025-07-29 10:51:32.461
14	495,10	2025-07-29 10:43:53.019	463,90	2025-07-29 10:45:40.419	427,80	2025-07-29 10:47:19.911	394,20	2025-07-29 10:49:13.049	384,00	2025-07-29 10:51:32.963
15	498,40	2025-07-29 10:43:53.524	463,90	2025-07-29 10:45:40.922	427,80	2025-07-29 10:47:20.386	394,20	2025-07-29 10:49:13.570	382,70	2025-07-29 10:51:33.452
16	498,40	2025-07-29 10:43:54.044	466,10	2025-07-29 10:45:41.409	429,90	2025-07-29 10:47:20.889	395,40	2025-07-29 10:49:14.041	382,70	2025-07-29 10:51:33.954
17	498,40	2025-07-29 10:43:54.515	466,10	2025-07-29 10:45:41.913	429,90	2025-07-29 10:47:21.391	395,40	2025-07-29 10:49:14.543	380,90	2025-07-29 10:51:34.458
18	502,30	2025-07-29 10:43:55.019	467,70	2025-07-29 10:45:42.419	432,30	2025-07-29 10:47:21.896	392,80	2025-07-29 10:49:15.048	380,90	2025-07-29 10:51:34.977
19	502,30	2025-07-29 10:43:55.523	467,70	2025-07-29 10:45:42.922	432,30	2025-07-29 10:47:22.383	392,80	2025-07-29 10:49:15.552	381,20	2025-07-29 10:51:35.452
20	503,00	2025-07-29 10:43:56.028	468,40	2025-07-29 10:45:43.408	431,90	2025-07-29 10:47:22.904	389,90	2025-07-29 10:49:16.040	381,20	2025-07-29 10:51:35.955
21	503,00	2025-07-29 10:43:56.513	468,40	2025-07-29 10:45:43.912	431,90	2025-07-29 10:47:23.393	389,90	2025-07-29 10:49:16.541	385,50	2025-07-29 10:51:36.459
22	501,60	2025-07-29 10:43:57.017	468,90	2025-07-29 10:45:44.416	429,60	2025-07-29 10:47:23.895	389,50	2025-07-29 10:49:17.047	385,50	2025-07-29 10:51:36.961
23	501,60	2025-07-29 10:43:57.521	468,90	2025-07-29 10:45:44.920	429,60	2025-07-29 10:47:24.417	389,50	2025-07-29 10:49:17.565	386,60	2025-07-29 10:51:37.447
24	500,00	2025-07-29 10:43:58.026	463,10	2025-07-29 10:45:45.408	425,80	2025-07-29 10:47:24.885	387,30	2025-07-29 10:49:18.054	386,60	2025-07-29 10:51:37.953
25	500,00	2025-07-29 10:43:58.528	463,10	2025-07-29 10:45:45.911	425,80	2025-07-29 10:47:25.390	387,30	2025-07-29 10:49:18.539	384,00	2025-07-29 10:51:38.455
26	499,70	2025-07-29 10:43:59.019	458,60	2025-07-29 10:45:46.417	425,30	2025-07-29 10:47:25.895	383,80	2025-07-29 10:49:19.045	384,00	2025-07-29 10:51:38.958
27	499,70	2025-07-29 10:43:59.520	458,60	2025-07-29 10:45:46.919	425,30	2025-07-29 10:47:26.398	383,80	2025-07-29 10:49:19.549	382,20	2025-07-29 10:51:39.463
28	499,70	2025-07-29 10:44:00.024	458,60	2025-07-29 10:45:47.424	425,30	2025-07-29 10:47:26.886	383,80	2025-07-29 10:49:20.052	382,20	2025-07-29 10:51:39.950
29	500,40	2025-07-29 10:44:00.527	457,90	2025-07-29 10:45:47.909	427,20	2025-07-29 10:47:27.390	381,80	2025-07-29 10:49:20.538	382,80	2025-07-29 10:51:40.453
30	500,40	2025-07-29 10:44:01.016	457,90	2025-07-29 10:45:48.414	427,20	2025-07-29 10:47:27.893	381,80	2025-07-29 10:49:21.044	382,80	2025-07-29 10:51:40.957
	498,32		466,70		427,62		393,11		364,37	

2.5 kg		3 kg		3.5 kg		4 kg		4,5 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
319,00	2025-07-29 10:53:11.181	298,60	2025-07-29 10:55:19.546	250,90	2025-07-29 10:57:05.872	225,20	2025-07-29 10:59:15.291	187,20	2025-07-29 11:00:52.207
327,60	2025-07-29 10:53:11.684	296,90	2025-07-29 10:55:20.017	250,90	2025-07-29 10:57:06.414	225,20	2025-07-29 10:59:15.798	187,20	2025-07-29 11:00:52.678
327,60	2025-07-29 10:53:12.190	296,90	2025-07-29 10:55:20.517	252,70	2025-07-29 10:57:06.883	224,30	2025-07-29 10:59:16.285	189,80	2025-07-29 11:00:53.182
333,80	2025-07-29 10:53:12.692	297,30	2025-07-29 10:55:21.025	252,70	2025-07-29 10:57:07.374	224,30	2025-07-29 10:59:16.803	189,80	2025-07-29 11:00:53.686
333,80	2025-07-29 10:53:13.196	297,30	2025-07-29 10:55:21.530	253,50	2025-07-29 10:57:07.874	226,00	2025-07-29 10:59:17.290	186,60	2025-07-29 11:00:54.192
335,00	2025-07-29 10:53:13.684	297,30	2025-07-29 10:55:22.032	253,50	2025-07-29 10:57:08.378	226,00	2025-07-29 10:59:17.796	186,60	2025-07-29 11:00:54.696
335,00	2025-07-29 10:53:14.202	297,30	2025-07-29 10:55:22.519	249,90	2025-07-29 10:57:08.884	226,20	2025-07-29 10:59:18.285	186,60	2025-07-29 11:00:55.184
337,90	2025-07-29 10:53:14.694	297,30	2025-07-29 10:55:23.022	249,90	2025-07-29 10:57:09.369	226,20	2025-07-29 10:59:18.786	179,60	2025-07-29 11:00:55.687
337,90	2025-07-29 10:53:15.197	295,90	2025-07-29 10:55:23.527	246,50	2025-07-29 10:57:09.876	229,10	2025-07-29 10:59:19.291	179,60	2025-07-29 11:00:56.190
337,90	2025-07-29 10:53:15.686	295,90	2025-07-29 10:55:24.030	246,50	2025-07-29 10:57:10.380	229,10	2025-07-29 10:59:19.792	176,20	2025-07-29 11:00:56.691
336,70	2025-07-29 10:53:16.190	296,40	2025-07-29 10:55:24.516	250,60	2025-07-29 10:57:10.883	231,20	2025-07-29 10:59:20.297	176,20	2025-07-29 11:00:57.195
336,70	2025-07-29 10:53:16.691	296,40	2025-07-29 10:55:25.023	250,60	2025-07-29 10:57:11.371	231,20	2025-07-29 10:59:20.785	178,20	2025-07-29 11:00:57.684
330,60	2025-07-29 10:53:17.196	295,60	2025-07-29 10:55:25.526	250,60	2025-07-29 10:57:11.872	231,20	2025-07-29 10:59:21.291	178,20	2025-07-29 11:00:58.203
330,60	2025-07-29 10:53:17.682	295,60	2025-07-29 10:55:26.028	260,20	2025-07-29 10:57:12.378	228,60	2025-07-29 10:59:21.806	178,20	2025-07-29 11:00:58.689
330,60	2025-07-29 10:53:18.186	290,30	2025-07-29 10:55:26.516	260,20	2025-07-29 10:57:12.881	228,60	2025-07-29 10:59:22.298	182,50	2025-07-29 11:00:59.209
330,60	2025-07-29 10:53:18.689	290,30	2025-07-29 10:55:27.022	268,20	2025-07-29 10:57:13.383	220,40	2025-07-29 10:59:22.785	182,50	2025-07-29 11:00:59.684
332,50	2025-07-29 10:53:19.195	287,20	2025-07-29 10:55:27.525	268,20	2025-07-29 10:57:13.873	220,40	2025-07-29 10:59:23.289	188,00	2025-07-29 11:01:00.216
332,50	2025-07-29 10:53:19.697	287,20	2025-07-29 10:55:28.043	271,50	2025-07-29 10:57:14.377	214,80	2025-07-29 10:59:23.792	188,00	2025-07-29 11:01:00.706
332,50	2025-07-29 10:53:20.184	287,20	2025-07-29 10:55:28.530	271,50	2025-07-29 10:57:14.881	214,80	2025-07-29 10:59:24.297	191,90	2025-07-29 11:01:01.177
332,00	2025-07-29 10:53:20.688	290,00	2025-07-29 10:55:29.019	271,50	2025-07-29 10:57:15.382	214,80	2025-07-29 10:59:24.782	191,90	2025-07-29 11:01:01.680
332,00	2025-07-29 10:53:21.192	290,00	2025-07-29 10:55:29.521	273,20	2025-07-29 10:57:15.871	216,20	2025-07-29 10:59:25.287	191,40	2025-07-29 11:01:02.185
332,00	2025-07-29 10:53:21.711	293,80	2025-07-29 10:55:30.026	273,20	2025-07-29 10:57:16.372	216,20	2025-07-29 10:59:25.789	191,40	2025-07-29 11:01:02.688
332,00	2025-07-29 10:53:22.199	293,80	2025-07-29 10:55:30.529	273,50	2025-07-29 10:57:16.877	219,40	2025-07-29 10:59:26.296	191,40	2025-07-29 11:01:03.175
332,20	2025-07-29 10:53:22.689	295,20	2025-07-29 10:55:31.035	273,50	2025-07-29 10:57:17.383	219,40	2025-07-29 10:59:26.796	186,00	2025-07-29 11:01:03.680
332,20	2025-07-29 10:53:23.193	295,20	2025-07-29 10:55:31.554	273,50	2025-07-29 10:57:17.871	221,40	2025-07-29 10:59:27.284	186,00	2025-07-29 11:01:04.183
332,20	2025-07-29 10:53:23.729	293,50	2025-07-29 10:55:32.024	271,40	2025-07-29 10:57:18.373	221,40	2025-07-29 10:59:27.790	180,10	2025-07-29 11:01:04.703
330,70	2025-07-29 10:53:24.182	293,50	2025-07-29 10:55:32.527	271,40	2025-07-29 10:57:18.877	221,40	2025-07-29 10:59:28.294	180,10	2025-07-29 11:01:05.207
330,70	2025-07-29 10:53:24.686	290,40	2025-07-29 10:55:33.018	267,10	2025-07-29 10:57:19.379	220,10	2025-07-29 10:59:28.797	180,90	2025-07-29 11:01:05.694
329,20	2025-07-29 10:53:25.208	290,40	2025-07-29 10:55:33.521	267,10	2025-07-29 10:57:19.885	220,10	2025-07-29 10:59:29.284	180,90	2025-07-29 11:01:06.183
329,20	2025-07-29 10:53:25.694	289,20	2025-07-29 10:55:34.025	264,40	2025-07-29 10:57:20.371	217,40	2025-07-29 10:59:29.788	180,90	2025-07-29 11:01:06.686
332,11		293,73		261,28		223,02		184,46	

5 kg		5,5 kg		6 kg		6,5 kg		7 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
148,40	2025-07-29 11:02:48.278	103,33	2025-07-29 11:06:19.623	68,86	2025-07-29 11:08:35.000	52,89	2025-07-29 11:12:18.689	0	2025-07-30 11:35:00.214
148,40	2025-07-29 11:02:48.781	103,33	2025-07-29 11:06:20.112	68,86	2025-07-29 11:08:35.521	52,89	2025-07-29 11:12:19.195	0	2025-07-30 11:35:00.716
148,40	2025-07-29 11:02:49.284	109,23	2025-07-29 11:06:20.601	68,86	2025-07-29 11:08:35.992	52,89	2025-07-29 11:12:19.680	0	2025-07-30 11:35:01.205
148,50	2025-07-29 11:02:49.791	109,23	2025-07-29 11:06:21.105	70,62	2025-07-29 11:08:36.496	46,67	2025-07-29 11:12:20.186	0	2025-07-30 11:35:01.709
148,50	2025-07-29 11:02:50.278	113,19	2025-07-29 11:06:21.608	70,62	2025-07-29 11:08:36.999	46,67	2025-07-29 11:12:20.685	0	2025-07-30 11:35:02.211
146,20	2025-07-29 11:02:50.778	113,19	2025-07-29 11:06:22.110	70,62	2025-07-29 11:08:37.506	42,52	2025-07-29 11:12:21.190	0	2025-07-30 11:35:02.700
146,20	2025-07-29 11:02:51.286	113,19	2025-07-29 11:06:22.600	70,62	2025-07-29 11:08:37.993	42,52	2025-07-29 11:12:21.743	0	2025-07-30 11:35:03.201
146,20	2025-07-29 11:02:51.773	113,58	2025-07-29 11:06:23.104	71,95	2025-07-29 11:08:38.497	51,32	2025-07-29 11:12:22.182	0	2025-07-30 11:35:03.709
145,90	2025-07-29 11:02:52.277	113,58	2025-07-29 11:06:23.621	71,95	2025-07-29 11:08:38.999	51,32	2025-07-29 11:12:22.738	0	2025-07-30 11:35:04.227
145,90	2025-07-29 11:02:52.779	111,45	2025-07-29 11:06:24.111	71,95	2025-07-29 11:08:39.503	51,32	2025-07-29 11:12:23.193	0	2025-07-30 11:35:04.697
145,90	2025-07-29 11:02:53.298	111,45	2025-07-29 11:06:24.597	74,85	2025-07-29 11:08:39.992	51,32	2025-07-29 11:12:23.693	0	2025-07-30 11:35:05.203
150,30	2025-07-29 11:02:53.771	111,45	2025-07-29 11:06:25.103	74,85	2025-07-29 11:08:40.496	59,72	2025-07-29 11:12:24.246	0	2025-07-30 11:35:05.708
150,30	2025-07-29 11:02:54.274	111,61	2025-07-29 11:06:25.606	74,85	2025-07-29 11:08:41.000	59,72	2025-07-29 11:12:24.700	0	2025-07-30 11:35:06.228
154,20	2025-07-29 11:02:54.777	111,61	2025-07-29 11:06:26.109	78,00	2025-07-29 11:08:41.504	59,72	2025-07-29 11:12:25.191	0	2025-07-30 11:35:06.731
154,20	2025-07-29 11:02:55.285	113,81	2025-07-29 11:06:26.630	78,00	2025-07-29 11:08:41.988	59,72	2025-07-29 11:12:25.696	0	2025-07-30 11:35:07.202
154,20	2025-07-29 11:02:55.769	113,81	2025-07-29 11:06:27.103	78,00	2025-07-29 11:08:42.493	61,42	2025-07-29 11:12:26.228	0	2025-07-30 11:35:07.705
146,80	2025-07-29 11:02:56.275	113,81	2025-07-29 11:06:27.603	84,14	2025-07-29 11:08:43.011	61,42	2025-07-29 11:12:26.686	0	2025-07-30 11:35:08.210
146,80	2025-07-29 11:02:56.779	114,54	2025-07-29 11:06:28.109	84,14	2025-07-29 11:08:43.500	61,42	2025-07-29 11:12:27.190	0	2025-07-30 11:35:08.712
146,80	2025-07-29 11:02:57.281	114,54	2025-07-29 11:06:28.643	84,14	2025-07-29 11:08:44.020	61,42	2025-07-29 11:12:27.691	0	2025-07-30 11:35:09.201
134,80	2025-07-29 11:02:57.815	111,02	2025-07-29 11:06:29.117	86,37	2025-07-29 11:08:44.493	61,42	2025-07-29 11:12:28.197	0	2025-07-30 11:35:09.705
134,80	2025-07-29 11:02:58.272	111,02	2025-07-29 11:06:29.602	86,37	2025-07-29 11:08:44.995	42,29	2025-07-29 11:12:28.715	0	2025-07-30 11:35:10.209
135,90	2025-07-29 11:02:58.774	111,02	2025-07-29 11:06:30.107	86,37	2025-07-29 11:08:45.499	42,29	2025-07-29 11:12:29.188	0	2025-07-30 11:35:10.710
135,90	2025-07-29 11:02:59.281	106,46	2025-07-29 11:06:30.610	85,18	2025-07-29 11:08:46.003	42,29	2025-07-29 11:12:29.708	0	2025-07-30 11:35:11.197
135,90	2025-07-29 11:02:59.814	106,46	2025-07-29 11:06:31.098	85,18	2025-07-29 11:08:46.508	33,69	2025-07-29 11:12:30.179	0	2025-07-30 11:35:11.703
142,60	2025-07-29 11:03:00.288	106,46	2025-07-29 11:06:31.619	85,18	2025-07-29 11:08:46.993	33,69	2025-07-29 11:12:30.683	0	2025-07-30 11:35:12.205
142,60	2025-07-29 11:03:00.774	106,38	2025-07-29 11:06:32.137	87,40	2025-07-29 11:08:47.498	33,69	2025-07-29 11:12:31.187	0	2025-07-30 11:35:12.709
142,60	2025-07-29 11:03:01.279	106,38	2025-07-29 11:06:32.624	87,40	2025-07-29 11:08:48.003	33,69	2025-07-29 11:12:31.691	0	2025-07-30 11:35:13.215
146,50	2025-07-29 11:03:01.783	106,87	2025-07-29 11:06:33.146	87,40	2025-07-29 11:08:48.488	33,69	2025-07-29 11:12:32.179	0	2025-07-30 11:35:13.703
146,50	2025-07-29 11:03:02.269	106,87	2025-07-29 11:06:33.599	86,56	2025-07-29 11:08:49.007	33,69	2025-07-29 11:12:32.697	0	2025-07-30 11:35:14.206
146,90	2025-07-29 11:03:02.791	106,87	2025-07-29 11:06:34.104	86,56	2025-07-29 11:08:49.496	33,69	2025-07-29 11:12:33.184	0	2025-07-30 11:35:14.709
145,57		110,19		78,86		48,37		0	

Tabel L.6 Data Pengukuran Beban Dan Putaran Turbin Angin Savonius Dua Sudu Variasi Jumlah *Dimple* 352

Tanpa beban			0.5 kg		1 kg		1.5 kg		2 kg	
No.	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
1	517,00	2025-07-30 11:35:00.214	477,40	2025-07-30 11:37:23.062	440,56	2025-07-30 11:38:34.275	409,80	2025-07-30 11:39:40.926	380,40	2025-07-30 11:40:54.933
2	517,00	2025-07-30 11:35:00.716	477,40	2025-07-30 11:37:23.564	442,36	2025-07-30 11:38:34.778	409,80	2025-07-30 11:39:41.426	380,40	2025-07-30 11:40:55.418
3	517,00	2025-07-30 11:35:01.205	473,90	2025-07-30 11:37:24.051	442,36	2025-07-30 11:38:35.267	410,10	2025-07-30 11:39:41.930	382,30	2025-07-30 11:40:55.919
4	518,10	2025-07-30 11:35:01.709	473,90	2025-07-30 11:37:24.553	443,06	2025-07-30 11:38:35.769	410,10	2025-07-30 11:39:42.434	382,30	2025-07-30 11:40:56.426
5	518,10	2025-07-30 11:35:02.211	472,00	2025-07-30 11:37:25.056	443,06	2025-07-30 11:38:36.274	410,50	2025-07-30 11:39:42.939	383,80	2025-07-30 11:40:56.927
6	516,60	2025-07-30 11:35:02.700	472,00	2025-07-30 11:37:25.564	439,86	2025-07-30 11:38:36.777	410,50	2025-07-30 11:39:43.426	383,80	2025-07-30 11:40:57.432
7	516,60	2025-07-30 11:35:03.201	473,00	2025-07-30 11:37:26.049	439,86	2025-07-30 11:38:37.282	412,40	2025-07-30 11:39:43.944	383,80	2025-07-30 11:40:57.920
8	517,90	2025-07-30 11:35:03.709	473,00	2025-07-30 11:37:26.555	438,46	2025-07-30 11:38:37.769	412,40	2025-07-30 11:39:44.432	382,70	2025-07-30 11:40:58.425
9	517,90	2025-07-30 11:35:04.227	475,40	2025-07-30 11:37:27.059	438,46	2025-07-30 11:38:38.270	413,10	2025-07-30 11:39:44.936	382,70	2025-07-30 11:40:58.927
10	520,60	2025-07-30 11:35:04.697	475,40	2025-07-30 11:37:27.562	438,46	2025-07-30 11:38:38.779	413,10	2025-07-30 11:39:45.424	379,50	2025-07-30 11:40:59.431
11	520,60	2025-07-30 11:35:05.203	478,60	2025-07-30 11:37:28.065	436,06	2025-07-30 11:38:39.280	411,00	2025-07-30 11:39:45.931	379,50	2025-07-30 11:40:59.920
12	522,20	2025-07-30 11:35:05.708	478,60	2025-07-30 11:37:28.552	436,06	2025-07-30 11:38:39.768	411,00	2025-07-30 11:39:46.434	381,20	2025-07-30 11:41:00.425
13	522,20	2025-07-30 11:35:06.228	481,90	2025-07-30 11:37:29.056	434,96	2025-07-30 11:38:40.271	409,80	2025-07-30 11:39:46.934	381,20	2025-07-30 11:41:00.925
14	522,20	2025-07-30 11:35:06.731	481,90	2025-07-30 11:37:29.560	434,96	2025-07-30 11:38:40.790	409,80	2025-07-30 11:39:47.424	384,40	2025-07-30 11:41:01.430
15	522,40	2025-07-30 11:35:07.202	481,90	2025-07-30 11:37:30.063	437,66	2025-07-30 11:38:41.281	409,80	2025-07-30 11:39:47.928	384,40	2025-07-30 11:41:01.916
16	522,40	2025-07-30 11:35:07.705	477,00	2025-07-30 11:37:30.551	437,66	2025-07-30 11:38:41.769	410,60	2025-07-30 11:39:48.430	384,40	2025-07-30 11:41:02.422
17	520,70	2025-07-30 11:35:08.210	477,00	2025-07-30 11:37:31.055	440,36	2025-07-30 11:38:42.271	410,60	2025-07-30 11:39:48.937	386,60	2025-07-30 11:41:02.942
18	520,70	2025-07-30 11:35:08.712	472,40	2025-07-30 11:37:31.560	440,36	2025-07-30 11:38:42.774	410,90	2025-07-30 11:39:49.424	386,60	2025-07-30 11:41:03.430
19	519,50	2025-07-30 11:35:09.201	472,40	2025-07-30 11:37:32.061	440,36	2025-07-30 11:38:43.279	410,90	2025-07-30 11:39:49.926	388,40	2025-07-30 11:41:03.934
20	519,50	2025-07-30 11:35:09.705	473,50	2025-07-30 11:37:32.568	441,26	2025-07-30 11:38:43.780	410,70	2025-07-30 11:39:50.429	388,40	2025-07-30 11:41:04.420
21	519,80	2025-07-30 11:35:10.209	473,50	2025-07-30 11:37:33.053	441,26	2025-07-30 11:38:44.270	410,70	2025-07-30 11:39:50.967	389,60	2025-07-30 11:41:04.925
22	519,80	2025-07-30 11:35:10.710	471,90	2025-07-30 11:37:33.556	440,76	2025-07-30 11:38:44.773	409,30	2025-07-30 11:39:51.439	389,60	2025-07-30 11:41:05.430
23	520,00	2025-07-30 11:35:11.197	471,90	2025-07-30 11:37:34.062	440,76	2025-07-30 11:38:45.307	409,30	2025-07-30 11:39:51.924	391,20	2025-07-30 11:41:05.931
24	520,00	2025-07-30 11:35:11.703	474,40	2025-07-30 11:37:34.565	439,66	2025-07-30 11:38:45.781	409,20	2025-07-30 11:39:52.428	391,20	2025-07-30 11:41:06.420
25	520,00	2025-07-30 11:35:12.205	474,40	2025-07-30 11:37:35.052	439,66	2025-07-30 11:38:46.267	409,20	2025-07-30 11:39:52.932	391,20	2025-07-30 11:41:06.922
26	517,80	2025-07-30 11:35:12.709	481,50	2025-07-30 11:37:35.555	440,26	2025-07-30 11:38:46.772	411,30	2025-07-30 11:39:53.436	389,20	2025-07-30 11:41:07.427
27	517,80	2025-07-30 11:35:13.215	481,50	2025-07-30 11:37:36.059	440,26	2025-07-30 11:38:47.274	411,30	2025-07-30 11:39:53.941	389,20	2025-07-30 11:41:07.929
28	514,50	2025-07-30 11:35:13.703	484,20	2025-07-30 11:37:36.563	440,26	2025-07-30 11:38:47.778	412,40	2025-07-30 11:39:54.445	385,50	2025-07-30 11:41:08.417
29	514,50	2025-07-30 11:35:14.206	484,20	2025-07-30 11:37:37.050	437,76	2025-07-30 11:38:48.266	412,40	2025-07-30 11:39:54.933	385,50	2025-07-30 11:41:08.920
30	512,70	2025-07-30 11:35:14.709	484,40	2025-07-30 11:37:37.554	437,76	2025-07-30 11:38:48.771	412,30	2025-07-30 11:39:55.437	382,70	2025-07-30 11:41:09.423
	518,87		476,68		439,49		410,81		385,06	

2,5 kg		3 kg		3,5 kg		4 kg		4,5 kg		5 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
342,10	2025-07-30 11:43:15.654	314,20	2025-07-30 11:44:36.536	262,40	2025-07-30 11:45:43.525	245,10	2025-07-30 11:47:06.522	209,00	2025-07-30 11:48:49.833	181,00	2025-07-30 11:50:49.694
342,10	2025-07-30 11:43:16.157	314,20	2025-07-30 11:44:37.038	262,40	2025-07-30 11:45:44.029	246,70	2025-07-30 11:47:07.025	209,00	2025-07-30 11:48:50.337	184,70	2025-07-30 11:50:50.196
342,10	2025-07-30 11:43:16.675	314,20	2025-07-30 11:44:37.526	262,40	2025-07-30 11:45:44.549	246,70	2025-07-30 11:47:07.529	212,20	2025-07-30 11:48:50.841	184,70	2025-07-30 11:50:50.684
342,90	2025-07-30 11:43:17.163	314,20	2025-07-30 11:44:38.028	265,00	2025-07-30 11:45:45.036	245,30	2025-07-30 11:47:08.032	212,20	2025-07-30 11:48:51.347	190,20	2025-07-30 11:50:51.188
342,90	2025-07-30 11:43:17.653	315,90	2025-07-30 11:44:38.532	265,00	2025-07-30 11:45:45.522	245,30	2025-07-30 11:47:08.518	214,70	2025-07-30 11:48:51.831	190,20	2025-07-30 11:50:51.693
341,50	2025-07-30 11:43:18.172	315,90	2025-07-30 11:44:39.040	275,20	2025-07-30 11:45:46.029	243,70	2025-07-30 11:47:09.025	214,70	2025-07-30 11:48:52.338	196,20	2025-07-30 11:50:52.197
341,50	2025-07-30 11:43:18.660	316,50	2025-07-30 11:44:39.542	275,20	2025-07-30 11:45:46.533	243,70	2025-07-30 11:47:09.527	214,70	2025-07-30 11:48:52.841	196,20	2025-07-30 11:50:52.701
340,70	2025-07-30 11:43:19.166	316,50	2025-07-30 11:44:40.043	279,40	2025-07-30 11:45:47.034	243,70	2025-07-30 11:47:10.030	217,00	2025-07-30 11:48:53.346	196,80	2025-07-30 11:50:53.187
340,70	2025-07-30 11:43:19.652	316,50	2025-07-30 11:44:40.532	279,40	2025-07-30 11:45:47.522	244,10	2025-07-30 11:47:10.521	217,00	2025-07-30 11:48:53.865	196,80	2025-07-30 11:50:53.690
342,20	2025-07-30 11:43:20.156	318,30	2025-07-30 11:44:41.065	284,00	2025-07-30 11:45:48.026	244,10	2025-07-30 11:47:11.024	219,70	2025-07-30 11:48:54.335	196,80	2025-07-30 11:50:54.196
342,20	2025-07-30 11:43:20.659	318,30	2025-07-30 11:44:41.540	284,00	2025-07-30 11:45:48.529	246,30	2025-07-30 11:47:11.529	219,70	2025-07-30 11:48:54.840	193,30	2025-07-30 11:50:54.713
348,90	2025-07-30 11:43:21.166	318,90	2025-07-30 11:44:42.027	284,00	2025-07-30 11:45:49.032	246,30	2025-07-30 11:47:12.032	221,80	2025-07-30 11:48:55.342	193,30	2025-07-30 11:50:55.186
348,90	2025-07-30 11:43:21.651	318,90	2025-07-30 11:44:42.531	288,10	2025-07-30 11:45:49.537	250,00	2025-07-30 11:47:12.518	221,80	2025-07-30 11:48:55.846	190,00	2025-07-30 11:50:55.690
356,70	2025-07-30 11:43:22.155	316,20	2025-07-30 11:44:43.035	288,10	2025-07-30 11:45:50.024	250,00	2025-07-30 11:47:13.024	221,80	2025-07-30 11:48:56.333	190,00	2025-07-30 11:50:56.194
356,70	2025-07-30 11:43:22.657	316,20	2025-07-30 11:44:43.538	287,50	2025-07-30 11:45:50.527	255,30	2025-07-30 11:47:13.528	219,00	2025-07-30 11:48:56.837	183,40	2025-07-30 11:50:56.697
359,30	2025-07-30 11:43:23.161	316,20	2025-07-30 11:44:44.027	287,50	2025-07-30 11:45:51.032	255,30	2025-07-30 11:47:14.029	219,00	2025-07-30 11:48:57.344	183,40	2025-07-30 11:50:57.185
359,30	2025-07-30 11:43:23.666	316,10	2025-07-30 11:44:44.529	289,00	2025-07-30 11:45:51.536	263,20	2025-07-30 11:47:14.519	213,90	2025-07-30 11:48:57.847	183,40	2025-07-30 11:50:57.688
356,30	2025-07-30 11:43:24.153	316,10	2025-07-30 11:44:45.049	289,00	2025-07-30 11:45:52.022	263,20	2025-07-30 11:47:15.022	213,90	2025-07-30 11:48:58.334	177,30	2025-07-30 11:50:58.192
356,30	2025-07-30 11:43:24.656	316,00	2025-07-30 11:44:45.536	292,20	2025-07-30 11:45:52.544	264,70	2025-07-30 11:47:15.527	213,00	2025-07-30 11:48:58.838	177,30	2025-07-30 11:50:58.696
353,40	2025-07-30 11:43:25.161	316,00	2025-07-30 11:44:46.041	292,20	2025-07-30 11:45:53.031	264,70	2025-07-30 11:47:16.030	213,00	2025-07-30 11:48:59.338	176,90	2025-07-30 11:50:59.199
353,40	2025-07-30 11:43:25.664	315,90	2025-07-30 11:44:46.528	288,70	2025-07-30 11:45:53.552	254,90	2025-07-30 11:47:16.531	213,00	2025-07-30 11:48:59.845	176,90	2025-07-30 11:50:59.689
355,40	2025-07-30 11:43:26.152	315,90	2025-07-30 11:44:47.031	288,70	2025-07-30 11:45:54.023	254,90	2025-07-30 11:47:17.017	213,90	2025-07-30 11:49:00.331	181,40	2025-07-30 11:51:00.189
355,40	2025-07-30 11:43:26.656	317,20	2025-07-30 11:44:47.535	283,60	2025-07-30 11:45:54.528	254,90	2025-07-30 11:47:17.537	213,90	2025-07-30 11:49:00.835	181,40	2025-07-30 11:51:00.693
355,90	2025-07-30 11:43:27.160	317,20	2025-07-30 11:44:48.039	283,60	2025-07-30 11:45:55.032	240,40	2025-07-30 11:47:18.057	212,00	2025-07-30 11:49:01.340	181,40	2025-07-30 11:51:01.201
355,90	2025-07-30 11:43:27.679	317,20	2025-07-30 11:44:48.526	283,60	2025-07-30 11:45:55.534	240,40	2025-07-30 11:47:18.544	212,00	2025-07-30 11:49:01.842	182,80	2025-07-30 11:51:01.686
355,90	2025-07-30 11:43:28.152	319,50	2025-07-30 11:44:49.030	282,60	2025-07-30 11:45:56.023	233,60	2025-07-30 11:47:19.017	212,00	2025-07-30 11:49:02.346	182,80	2025-07-30 11:51:02.190
351,10	2025-07-30 11:43:28.653	319,50	2025-07-30 11:44:49.534	282,60	2025-07-30 11:45:56.525	233,60	2025-07-30 11:47:19.522	208,00	2025-07-30 11:49:02.834	176,80	2025-07-30 11:51:02.694
351,10	2025-07-30 11:43:29.159	319,60	2025-07-30 11:44:50.038	281,50	2025-07-30 11:45:57.028	234,40	2025-07-30 11:47:20.025	208,00	2025-07-30 11:49:03.339	176,80	2025-07-30 11:51:03.199
346,60	2025-07-30 11:43:29.661	319,60	2025-07-30 11:44:50.525	281,50	2025-07-30 11:45:57.546	234,40	2025-07-30 11:47:20.529	204,50	2025-07-30 11:49:03.843	176,80	2025-07-30 11:51:03.685
346,60	2025-07-30 11:43:30.150	303,20	2025-07-31 14:02:21.886	279,70	2025-07-30 11:45:58.051	234,40	2025-07-30 11:47:21.032	204,50	2025-07-30 11:49:04.347	169,90	2025-07-30 11:51:04.188
349,47		316,34		280,94		247,44		213,96		184,96	

5,5 kg		6 kg		6,5 kg		7 kg		7,5 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
150,80	2025-07-30 11:52:49.965	97,51	2025-07-30 11:54:38.986	76,71	2025-07-30 11:57:29.657	39,94	2025-07-30 11:59:10.427	0	2025-07-30 12:09:04.569
145,70	2025-07-30 11:52:50.468	97,51	2025-07-30 11:54:39.474	73,77	2025-07-30 11:57:30.144	39,94	2025-07-30 11:59:10.931	0	2025-07-30 12:09:05.061
145,70	2025-07-30 11:52:50.957	97,51	2025-07-30 11:54:39.977	73,77	2025-07-30 11:57:30.647	43,87	2025-07-30 11:59:11.418	0	2025-07-30 12:09:05.547
140,90	2025-07-30 11:52:51.462	101,29	2025-07-30 11:54:40.482	73,77	2025-07-30 11:57:31.152	43,87	2025-07-30 11:59:11.922	0	2025-07-30 12:09:06.050
140,90	2025-07-30 11:52:51.965	101,29	2025-07-30 11:54:41.000	74,48	2025-07-30 11:57:31.654	47,02	2025-07-30 11:59:12.425	0	2025-07-30 12:09:06.557
143,00	2025-07-30 11:52:52.471	109,54	2025-07-30 11:54:41.473	74,48	2025-07-30 11:57:32.158	47,02	2025-07-30 11:59:12.929	0	2025-07-30 12:09:07.059
143,00	2025-07-30 11:52:52.989	109,54	2025-07-30 11:54:41.978	74,48	2025-07-30 11:57:32.646	47,02	2025-07-30 11:59:13.417	0	2025-07-30 12:09:07.548
143,00	2025-07-30 11:52:53.460	117,50	2025-07-30 11:54:42.481	76,08	2025-07-30 11:57:33.150	47,02	2025-07-30 11:59:13.919	0	2025-07-30 12:09:08.048
151,40	2025-07-30 11:52:53.964	117,50	2025-07-30 11:54:42.983	76,08	2025-07-30 11:57:33.652	44,37	2025-07-30 11:59:14.439	0	2025-07-30 12:09:08.553
151,40	2025-07-30 11:52:54.468	123,20	2025-07-30 11:54:43.473	80,54	2025-07-30 11:57:34.161	44,37	2025-07-30 11:59:14.926	0	2025-07-30 12:09:09.073
151,40	2025-07-30 11:52:54.971	123,20	2025-07-30 11:54:43.992	80,54	2025-07-30 11:57:34.646	40,49	2025-07-30 11:59:15.433	0	2025-07-30 12:09:09.544
154,90	2025-07-30 11:52:55.459	126,50	2025-07-30 11:54:44.479	80,54	2025-07-30 11:57:35.147	40,49	2025-07-30 11:59:15.920	0	2025-07-30 12:09:10.047
154,90	2025-07-30 11:52:55.979	126,50	2025-07-30 11:54:45.000	86,15	2025-07-30 11:57:35.653	40,49	2025-07-30 11:59:16.423	0	2025-07-30 12:09:10.551
149,80	2025-07-30 11:52:56.467	126,40	2025-07-30 11:54:45.486	86,15	2025-07-30 11:57:36.158	43,63	2025-07-30 11:59:16.926	0	2025-07-30 12:09:11.056
149,80	2025-07-30 11:52:56.971	126,40	2025-07-30 11:54:45.976	86,47	2025-07-30 11:57:36.642	43,63	2025-07-30 11:59:17.430	0	2025-07-30 12:09:11.557
147,00	2025-07-30 11:52:57.474	124,20	2025-07-30 11:54:46.479	86,47	2025-07-30 11:57:37.149	48,47	2025-07-30 11:59:17.920	0	2025-07-30 12:09:12.047
147,00	2025-07-30 11:52:57.962	124,20	2025-07-30 11:54:46.982	86,47	2025-07-30 11:57:37.651	48,47	2025-07-30 11:59:18.424	0	2025-07-30 12:09:12.550
147,00	2025-07-30 11:52:58.466	124,20	2025-07-30 11:54:47.486	87,5	2025-07-30 11:57:38.154	48,47	2025-07-30 11:59:18.926	0	2025-07-30 12:09:13.052
149,30	2025-07-30 11:52:58.968	120,90	2025-07-30 11:54:47.976	87,5	2025-07-30 11:57:38.644	54,61	2025-07-30 11:59:19.430	0	2025-07-30 12:09:13.555
149,30	2025-07-30 11:52:59.472	120,90	2025-07-30 11:54:48.477	86,85	2025-07-30 11:57:39.148	54,61	2025-07-30 11:59:19.917	0	2025-07-30 12:09:14.044
149,30	2025-07-30 11:52:59.961	116,40	2025-07-30 11:54:48.980	86,85	2025-07-30 11:57:39.651	49,56	2025-07-30 11:59:20.422	0	2025-07-30 12:09:14.549
153,60	2025-07-30 11:53:00.465	116,40	2025-07-30 11:54:49.498	86,85	2025-07-30 11:57:40.153	49,56	2025-07-30 11:59:20.924	0	2025-07-30 12:09:15.052
153,60	2025-07-30 11:53:00.967	113,80	2025-07-30 11:54:49.975	86,39	2025-07-30 11:57:40.655	49,56	2025-07-30 11:59:21.430	0	2025-07-30 12:09:15.557
153,60	2025-07-30 11:53:01.472	113,80	2025-07-30 11:54:50.476	86,39	2025-07-30 11:57:41.143	49,56	2025-07-30 11:59:21.915	0	2025-07-30 12:09:16.042
157,60	2025-07-30 11:53:01.961	117,30	2025-07-30 11:54:50.981	88,53	2025-07-30 11:57:41.650	40,51	2025-07-30 11:59:22.420	0	2025-07-30 12:09:16.549
157,60	2025-07-30 11:53:02.465	117,30	2025-07-30 11:54:51.483	88,53	2025-07-30 11:57:42.152	40,51	2025-07-30 11:59:22.923	0	2025-07-30 12:09:17.050
157,60	2025-07-30 11:53:02.966	123,70	2025-07-30 11:54:51.971	89,42	2025-07-30 11:57:42.656	43,13	2025-07-30 11:59:23.426	0	2025-07-30 12:09:17.555
159,00	2025-07-30 11:53:03.471	123,70	2025-07-30 11:54:52.474	89,42	2025-07-30 11:57:43.142	43,13	2025-07-30 11:59:23.930	0	2025-07-30 12:09:18.058
159,00	2025-07-30 11:53:03.974	123,70	2025-07-30 11:54:52.979	89,42	2025-07-30 11:57:43.646	43,13	2025-07-30 11:59:24.419	0	2025-07-30 12:09:18.547
158,50	2025-07-30 11:53:04.463	124,60	2025-07-30 11:54:53.484	89,48	2025-07-30 11:57:44.152	47,89	2025-07-30 11:59:24.925	0	2025-07-30 12:09:19.051
150,52		116,88		83,00		45,48		0	

Tabel L.7 Data Pengukuran Beban Dan Putaran Turbin Angin Savonius Dua Sudu Variasi Jumlah *Dimple* 384

Tanpa beban			0.5 kg		1 kg		1.5 kg		2 kg	
No.	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
1	521,10	2025-07-30 12:09:04.569	497,80	2025-07-30 12:10:53.470	444,90	2025-07-30 12:12:26.956	428,60	2025-07-30 12:14:05.544	377,80	2025-07-30 12:15:47.337
2	521,10	2025-07-30 12:09:05.061	493,00	2025-07-30 12:10:53.972	444,90	2025-07-30 12:12:27.460	426,10	2025-07-30 12:14:06.044	377,80	2025-07-30 12:15:47.824
3	523,70	2025-07-30 12:09:05.547	493,00	2025-07-30 12:10:54.460	445,50	2025-07-30 12:12:27.964	426,10	2025-07-30 12:14:06.532	380,80	2025-07-30 12:15:48.327
4	523,70	2025-07-30 12:09:06.050	490,50	2025-07-30 12:10:54.964	445,50	2025-07-30 12:12:28.467	424,20	2025-07-30 12:14:07.035	380,80	2025-07-30 12:15:48.831
5	526,20	2025-07-30 12:09:06.557	490,50	2025-07-30 12:10:55.466	448,50	2025-07-30 12:12:28.955	424,20	2025-07-30 12:14:07.539	383,50	2025-07-30 12:15:49.332
6	526,20	2025-07-30 12:09:07.059	490,50	2025-07-30 12:10:55.969	448,50	2025-07-30 12:12:29.460	421,30	2025-07-30 12:14:08.028	383,50	2025-07-30 12:15:49.838
7	524,60	2025-07-30 12:09:07.548	487,00	2025-07-30 12:10:56.456	448,40	2025-07-30 12:12:29.978	421,30	2025-07-30 12:14:08.531	383,50	2025-07-30 12:15:50.324
8	524,60	2025-07-30 12:09:08.048	487,00	2025-07-30 12:10:56.960	448,40	2025-07-30 12:12:30.467	420,20	2025-07-30 12:14:09.034	380,30	2025-07-30 12:15:50.826
9	525,70	2025-07-30 12:09:08.553	484,10	2025-07-30 12:10:57.464	449,00	2025-07-30 12:12:30.954	420,20	2025-07-30 12:14:09.536	380,30	2025-07-30 12:15:51.331
10	525,70	2025-07-30 12:09:09.073	484,10	2025-07-30 12:10:57.969	449,00	2025-07-30 12:12:31.457	422,20	2025-07-30 12:14:10.041	377,40	2025-07-30 12:15:51.836
11	525,70	2025-07-30 12:09:09.544	487,80	2025-07-30 12:10:58.473	447,60	2025-07-30 12:12:31.961	422,20	2025-07-30 12:14:10.529	377,40	2025-07-30 12:15:52.322
12	529,00	2025-07-30 12:09:10.047	487,80	2025-07-30 12:10:58.960	447,60	2025-07-30 12:12:32.467	422,20	2025-07-30 12:14:11.035	380,80	2025-07-30 12:15:52.824
13	529,00	2025-07-30 12:09:10.551	490,80	2025-07-30 12:10:59.463	447,60	2025-07-30 12:12:32.954	428,40	2025-07-30 12:14:11.538	380,80	2025-07-30 12:15:53.333
14	528,70	2025-07-30 12:09:11.056	490,80	2025-07-30 12:10:59.969	442,60	2025-07-30 12:12:33.474	428,40	2025-07-30 12:14:12.040	382,10	2025-07-30 12:15:53.853
15	528,70	2025-07-30 12:09:11.557	491,30	2025-07-30 12:11:00.472	442,60	2025-07-30 12:12:33.962	429,20	2025-07-30 12:14:12.529	382,10	2025-07-30 12:15:54.323
16	528,00	2025-07-30 12:09:12.047	491,30	2025-07-30 12:11:00.960	443,40	2025-07-30 12:12:34.464	429,20	2025-07-30 12:14:13.031	382,10	2025-07-30 12:15:54.827
17	528,00	2025-07-30 12:09:12.550	491,30	2025-07-30 12:11:01.461	443,40	2025-07-30 12:12:34.982	426,00	2025-07-30 12:14:13.536	377,70	2025-07-30 12:15:55.329
18	529,60	2025-07-30 12:09:13.052	491,70	2025-07-30 12:11:01.965	452,80	2025-07-30 12:12:35.455	426,00	2025-07-30 12:14:14.041	377,70	2025-07-30 12:15:55.833
19	529,60	2025-07-30 12:09:13.555	491,70	2025-07-30 12:11:02.474	452,80	2025-07-30 12:12:35.961	424,90	2025-07-30 12:14:14.544	372,90	2025-07-30 12:15:56.336
20	533,10	2025-07-30 12:09:14.044	491,90	2025-07-30 12:11:02.962	457,40	2025-07-30 12:12:36.465	424,90	2025-07-30 12:14:15.030	372,90	2025-07-30 12:15:56.826
21	533,10	2025-07-30 12:09:14.549	491,90	2025-07-30 12:11:03.464	457,40	2025-07-30 12:12:36.966	423,60	2025-07-30 12:14:15.534	374,50	2025-07-30 12:15:57.330
22	535,80	2025-07-30 12:09:15.052	495,30	2025-07-30 12:11:03.966	457,90	2025-07-30 12:12:37.456	423,60	2025-07-30 12:14:16.040	374,50	2025-07-30 12:15:57.834
23	535,80	2025-07-30 12:09:15.557	495,30	2025-07-30 12:11:04.473	457,90	2025-07-30 12:12:37.960	423,80	2025-07-30 12:14:16.540	374,50	2025-07-30 12:15:58.335
24	533,00	2025-07-30 12:09:16.042	499,20	2025-07-30 12:11:04.960	459,10	2025-07-30 12:12:38.463	423,80	2025-07-30 12:14:17.027	379,80	2025-07-30 12:15:58.825
25	533,00	2025-07-30 12:09:16.549	499,20	2025-07-30 12:11:05.461	459,10	2025-07-30 12:12:38.965	427,10	2025-07-30 12:14:17.532	379,80	2025-07-30 12:15:59.325
26	533,00	2025-07-30 12:09:17.050	500,60	2025-07-30 12:11:05.965	459,10	2025-07-30 12:12:39.452	427,10	2025-07-30 12:14:18.035	383,70	2025-07-30 12:15:59.829
27	532,10	2025-07-30 12:09:17.555	500,60	2025-07-30 12:11:06.471	459,10	2025-07-30 12:12:39.959	429,00	2025-07-30 12:14:18.542	383,70	2025-07-30 12:16:00.333
28	532,10	2025-07-30 12:09:18.058	500,10	2025-07-30 12:11:06.973	459,10	2025-07-30 12:12:40.460	429,00	2025-07-30 12:14:19.047	384,20	2025-07-30 12:16:00.823
29	534,30	2025-07-30 12:09:18.547	500,10	2025-07-30 12:11:07.459	458,20	2025-07-30 12:12:40.966	423,90	2025-07-30 12:14:19.531	384,20	2025-07-30 12:16:01.325
30	534,30	2025-07-30 12:09:19.051	500,10	2025-07-30 12:11:07.963	458,20	2025-07-30 12:12:41.468	423,90	2025-07-30 12:14:20.035	385,40	2025-07-30 12:16:01.831
	528,95		489,88		451,18		425,02		389,88	

2.5 kg		3 kg		3,5 kg		4 kg		4,5 kg		5 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
357,90	2025-07-30 12:20:50.075	325,50	2025-07-30 12:28:08.084	286,70	2025-07-30 12:29:27.113	269,50	2025-07-30 12:34:27.708	247,30	2025-07-30 12:35:41.665	202,40	2025-07-30 12:37:43.428
357,90	2025-07-30 12:20:50.547	322,50	2025-07-30 12:28:08.590	286,70	2025-07-30 12:29:27.629	279,30	2025-07-30 12:34:28.210	247,30	2025-07-30 12:35:42.154	202,40	2025-07-30 12:37:43.930
355,60	2025-07-30 12:20:51.052	322,50	2025-07-30 12:28:09.095	288,60	2025-07-30 12:29:28.103	279,30	2025-07-30 12:34:28.711	240,20	2025-07-30 12:35:42.659	205,80	2025-07-30 12:37:44.435
355,60	2025-07-30 12:20:51.556	321,70	2025-07-30 12:28:09.583	288,60	2025-07-30 12:29:28.606	282,40	2025-07-30 12:34:29.202	240,20	2025-07-30 12:35:43.163	205,80	2025-07-30 12:37:44.939
353,50	2025-07-30 12:20:52.060	321,70	2025-07-30 12:28:10.086	286,30	2025-07-30 12:29:29.110	282,40	2025-07-30 12:34:29.705	234,30	2025-07-30 12:35:43.667	206,50	2025-07-30 12:37:45.445
353,50	2025-07-30 12:20:52.578	321,70	2025-07-30 12:28:10.590	286,30	2025-07-30 12:29:29.599	282,40	2025-07-30 12:34:30.207	234,30	2025-07-30 12:35:44.170	206,50	2025-07-30 12:37:45.930
351,90	2025-07-30 12:20:53.049	322,80	2025-07-30 12:28:11.092	286,00	2025-07-30 12:29:30.102	279,80	2025-07-30 12:34:30.712	238,30	2025-07-30 12:35:44.659	206,50	2025-07-30 12:37:46.435
351,90	2025-07-30 12:20:53.553	322,80	2025-07-30 12:28:11.580	286,00	2025-07-30 12:29:30.605	279,80	2025-07-30 12:34:31.198	238,30	2025-07-30 12:35:45.160	206,60	2025-07-30 12:37:46.938
351,30	2025-07-30 12:20:54.057	329,10	2025-07-30 12:28:12.083	288,80	2025-07-30 12:29:31.109	276,90	2025-07-30 12:34:31.702	241,70	2025-07-30 12:35:45.664	206,60	2025-07-30 12:37:47.442
351,30	2025-07-30 12:20:54.560	329,10	2025-07-30 12:28:12.590	288,80	2025-07-30 12:29:31.597	276,90	2025-07-30 12:34:32.208	241,70	2025-07-30 12:35:46.170	209,20	2025-07-30 12:37:47.930
352,80	2025-07-30 12:20:55.048	332,10	2025-07-30 12:28:13.091	288,80	2025-07-30 12:29:32.100	276,90	2025-07-30 12:34:32.712	237,90	2025-07-30 12:35:46.657	209,20	2025-07-30 12:37:48.436
352,80	2025-07-30 12:20:55.553	332,10	2025-07-30 12:28:13.597	293,00	2025-07-30 12:29:32.603	272,20	2025-07-30 12:34:33.214	237,90	2025-07-30 12:35:47.159	212,20	2025-07-30 12:37:48.937
352,90	2025-07-30 12:20:56.057	331,40	2025-07-30 12:28:14.083	293,00	2025-07-30 12:29:33.108	272,20	2025-07-30 12:34:33.703	237,90	2025-07-30 12:35:47.663	212,20	2025-07-30 12:37:49.440
352,90	2025-07-30 12:20:56.560	331,40	2025-07-30 12:28:14.588	298,30	2025-07-30 12:29:33.595	269,60	2025-07-30 12:34:34.207	232,70	2025-07-30 12:35:48.170	212,20	2025-07-30 12:37:49.929
353,60	2025-07-30 12:20:57.078	332,20	2025-07-30 12:28:15.089	298,30	2025-07-30 12:29:34.098	269,60	2025-07-30 12:34:34.707	232,70	2025-07-30 12:35:48.657	211,80	2025-07-30 12:37:50.434
353,60	2025-07-30 12:20:57.553	332,20	2025-07-30 12:28:15.594	303,30	2025-07-30 12:29:34.602	272,50	2025-07-30 12:34:35.214	231,80	2025-07-30 12:35:49.159	211,80	2025-07-30 12:37:50.952
355,70	2025-07-30 12:20:58.058	334,50	2025-07-30 12:28:16.081	303,30	2025-07-30 12:29:35.105	272,50	2025-07-30 12:34:35.701	231,80	2025-07-30 12:35:49.662	212,30	2025-07-30 12:37:51.441
355,70	2025-07-30 12:20:58.558	334,50	2025-07-30 12:28:16.588	310,40	2025-07-30 12:29:35.611	272,50	2025-07-30 12:34:36.205	233,80	2025-07-30 12:35:50.169	212,30	2025-07-30 12:37:51.928
358,40	2025-07-30 12:20:59.047	334,50	2025-07-30 12:28:17.091	310,40	2025-07-30 12:29:36.098	270,50	2025-07-30 12:34:36.709	233,80	2025-07-30 12:35:50.656	214,90	2025-07-30 12:37:52.431
358,40	2025-07-30 12:20:59.548	335,70	2025-07-30 12:28:17.595	310,40	2025-07-30 12:29:36.602	270,50	2025-07-30 12:34:37.213	234,60	2025-07-30 12:35:51.160	214,90	2025-07-30 12:37:52.933
357,90	2025-07-30 12:21:00.053	335,70	2025-07-30 12:28:18.080	317,20	2025-07-30 12:29:37.105	265,20	2025-07-30 12:34:37.701	234,60	2025-07-30 12:35:51.663	213,50	2025-07-30 12:37:53.441
357,90	2025-07-30 12:21:00.559	333,80	2025-07-30 12:28:18.586	317,20	2025-07-30 12:29:37.611	265,20	2025-07-30 12:34:38.202	234,50	2025-07-30 12:35:52.167	213,50	2025-07-30 12:37:53.944
357,90	2025-07-30 12:21:01.047	333,80	2025-07-30 12:28:19.090	318,70	2025-07-30 12:29:38.096	265,20	2025-07-30 12:34:38.708	234,50	2025-07-30 12:35:52.669	213,50	2025-07-30 12:37:54.432
351,00	2025-07-30 12:21:01.564	336,10	2025-07-30 12:28:19.593	318,70	2025-07-30 12:29:38.601	264,00	2025-07-30 12:34:39.212	237,90	2025-07-30 12:35:53.156	209,00	2025-07-30 12:37:54.935
351,00	2025-07-30 12:21:02.054	336,10	2025-07-30 12:28:20.081	317,30	2025-07-30 12:29:39.119	264,00	2025-07-30 12:34:39.713	237,90	2025-07-30 12:35:53.660	209,00	2025-07-30 12:37:55.437
346,60	2025-07-30 12:21:02.559	341,70	2025-07-30 12:28:20.584	317,30	2025-07-30 12:29:39.610	264,20	2025-07-30 12:34:40.201	240,90	2025-07-30 12:35:54.165	203,60	2025-07-30 12:37:55.941
346,60	2025-07-30 12:21:03.045	341,70	2025-07-30 12:28:21.088	315,60	2025-07-30 12:29:40.096	264,20	2025-07-30 12:34:40.707	240,90	2025-07-30 12:35:54.670	203,60	2025-07-30 12:37:56.429
344,70	2025-07-30 12:21:03.550	340,90	2025-07-30 12:28:21.590	315,60	2025-07-30 12:29:40.599	264,20	2025-07-30 12:34:41.210	240,90	2025-07-30 12:35:55.152	203,60	2025-07-30 12:37:56.934
344,70	2025-07-30 12:21:04.053	340,90	2025-07-30 12:28:22.094	313,60	2025-07-30 12:29:41.103	265,40	2025-07-30 12:34:41.714	244,50	2025-07-30 12:35:55.657	197,90	2025-07-30 12:37:57.436
342,20	2025-07-30 12:21:04.558	331,00	2025-07-30 12:28:22.583	313,60	2025-07-30 12:29:41.607	265,40	2025-07-30 12:34:42.201	244,50	2025-07-30 12:35:56.160	197,90	2025-07-30 12:37:57.941
356,92		331,39		301,56		271,82		237,99		208,24	

5,5 kg		6 kg		6,5 kg		7kg		7,5kg		7,5kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
157,50	2025-07-30 12:38:57.199	134,90	2025-07-30 12:40:04.834	117,10	2025-07-30 12:42:10.954	87,94	2025-07-30 12:43:27.954	62,67	2025-07-30 12:44:46.118	0	2025-07-30 14:28:26.219
157,50	2025-07-30 12:38:57.686	135,90	2025-07-30 12:40:05.336	115,70	2025-07-30 12:42:11.456	84,29	2025-07-30 12:43:28.461	62,67	2025-07-30 12:44:46.617	0	2025-07-30 14:28:26.704
161,30	2025-07-30 12:38:58.191	135,90	2025-07-30 12:40:05.822	115,70	2025-07-30 12:42:11.963	84,29	2025-07-30 12:43:28.962	62,67	2025-07-30 12:44:47.108	0	2025-07-30 14:28:27.209
161,30	2025-07-30 12:38:58.695	135,90	2025-07-30 12:40:06.326	117,50	2025-07-30 12:42:12.463	84,29	2025-07-30 12:43:29.449	71,03	2025-07-30 12:44:47.611	0	2025-07-30 14:28:27.712
160,40	2025-07-30 12:38:59.197	135,90	2025-07-30 12:40:06.832	117,50	2025-07-30 12:42:12.966	81,45	2025-07-30 12:43:29.955	71,03	2025-07-30 12:44:48.112	0	2025-07-30 14:28:28.231
160,40	2025-07-30 12:38:59.684	135,90	2025-07-30 12:40:07.336	117,50	2025-07-30 12:42:13.453	81,45	2025-07-30 12:43:30.457	71,03	2025-07-30 12:44:48.616	0	2025-07-30 14:28:28.719
164,20	2025-07-30 12:39:00.187	141,10	2025-07-30 12:40:07.820	119,20	2025-07-30 12:42:13.961	84,73	2025-07-30 12:43:30.962	77,39	2025-07-30 12:44:49.108	0	2025-07-30 14:28:29.207
164,20	2025-07-30 12:39:00.694	141,10	2025-07-30 12:40:08.342	119,20	2025-07-30 12:42:14.465	84,73	2025-07-30 12:43:31.451	77,39	2025-07-30 12:44:49.612	0	2025-07-30 14:28:29.711
171,30	2025-07-30 12:39:01.197	146,00	2025-07-30 12:40:08.831	117,90	2025-07-30 12:42:14.968	84,73	2025-07-30 12:43:31.952	77,39	2025-07-30 12:44:50.113	0	2025-07-30 14:28:30.230
171,30	2025-07-30 12:39:01.698	146,00	2025-07-30 12:40:09.335	117,90	2025-07-30 12:42:15.453	88,73	2025-07-30 12:43:32.459	77,04	2025-07-30 12:44:50.616	0	2025-07-30 14:28:30.720
176,00	2025-07-30 12:39:02.203	146,90	2025-07-30 12:40:09.820	117,80	2025-07-30 12:42:15.960	88,73	2025-07-30 12:43:32.960	77,04	2025-07-30 12:44:51.104	0	2025-07-30 14:28:31.205
176,00	2025-07-30 12:39:02.691	146,90	2025-07-30 12:40:10.324	117,80	2025-07-30 12:42:16.479	88,73	2025-07-30 12:43:33.447	77,04	2025-07-30 12:44:51.609	0	2025-07-30 14:28:31.709
176,00	2025-07-30 12:39:03.195	146,90	2025-07-30 12:40:10.827	117,00	2025-07-30 12:42:16.964	93,66	2025-07-30 12:43:33.953	73,75	2025-07-30 12:44:52.114	0	2025-07-30 14:28:32.213
179,90	2025-07-30 12:39:03.697	148,00	2025-07-30 12:40:11.334	117,00	2025-07-30 12:42:17.454	93,66	2025-07-30 12:43:34.455	73,75	2025-07-30 12:44:52.618	0	2025-07-30 14:28:32.717
179,90	2025-07-30 12:39:04.185	148,00	2025-07-30 12:40:11.819	117,00	2025-07-30 12:42:17.958	96,20	2025-07-30 12:43:34.959	73,75	2025-07-30 12:44:53.103	0	2025-07-30 14:28:33.204
185,00	2025-07-30 12:39:04.691	150,20	2025-07-30 12:40:12.325	113,90	2025-07-30 12:42:18.462	96,20	2025-07-30 12:43:35.462	73,75	2025-07-30 12:44:53.622	0	2025-07-30 14:28:33.707
185,00	2025-07-30 12:39:05.194	150,20	2025-07-30 12:40:12.829	113,90	2025-07-30 12:42:18.965	100,70	2025-07-30 12:43:35.952	70,33	2025-07-30 12:44:54.112	0	2025-07-30 14:28:34.211
185,00	2025-07-30 12:39:05.699	150,10	2025-07-30 12:40:13.328	116,00	2025-07-30 12:42:19.470	100,70	2025-07-30 12:43:36.452	70,33	2025-07-30 12:44:54.615	0	2025-07-30 14:28:34.714
189,30	2025-07-30 12:39:06.185	150,10	2025-07-30 12:40:13.837	116,00	2025-07-30 12:42:19.956	100,70	2025-07-30 12:43:36.957	70,33	2025-07-30 12:44:55.119	0	2025-07-30 14:28:35.218
189,30	2025-07-30 12:39:06.689	155,20	2025-07-30 12:40:14.321	122,10	2025-07-30 12:42:20.458	105,60	2025-07-30 12:43:37.464	67,21	2025-07-30 12:44:55.604	0	2025-07-30 14:28:35.709
189,70	2025-07-30 12:39:07.191	155,20	2025-07-30 12:40:14.825	122,10	2025-07-30 12:42:20.962	105,60	2025-07-30 12:43:37.951	67,21	2025-07-30 12:44:56.109	0	2025-07-30 14:28:36.211
189,70	2025-07-30 12:39:07.696	164,40	2025-07-30 12:40:15.329	122,10	2025-07-30 12:42:21.468	105,90	2025-07-30 12:43:38.455	67,21	2025-07-30 12:44:56.616	0	2025-07-30 14:28:36.715
189,70	2025-07-30 12:39:08.183	164,40	2025-07-30 12:40:15.847	127,80	2025-07-30 12:42:21.953	105,90	2025-07-30 12:43:38.958	67,21	2025-07-30 12:44:57.119	0	2025-07-30 14:28:37.236
192,80	2025-07-30 12:39:08.688	166,00	2025-07-30 12:40:16.319	127,80	2025-07-30 12:42:22.459	105,50	2025-07-30 12:43:39.459	66,57	2025-07-30 12:44:57.607	0	2025-07-30 14:28:37.708
192,80	2025-07-30 12:39:09.191	166,00	2025-07-30 12:40:16.822	127,80	2025-07-30 12:42:22.962	105,50	2025-07-30 12:43:39.946	66,57	2025-07-30 12:44:58.110	0	2025-07-30 14:28:38.208
197,60	2025-07-30 12:39:09.696	166,00	2025-07-30 12:40:17.327	132,00	2025-07-30 12:42:23.466	104,50	2025-07-30 12:43:40.452	66,57	2025-07-30 12:44:58.614	0	2025-07-30 14:28:38.712
197,60	2025-07-30 12:39:10.199	162,70	2025-07-30 12:40:17.832	132,00	2025-07-30 12:42:23.954	104,50	2025-07-30 12:43:40.956	68,26	2025-07-30 12:44:59.117	0	2025-07-30 14:28:39.217
197,60	2025-07-30 12:39:10.700	162,70	2025-07-30 12:40:18.319	132,00	2025-07-30 12:42:24.458	104,50	2025-07-30 12:43:41.461	68,26	2025-07-30 12:44:59.605	0	2025-07-30 14:28:39.703
198,70	2025-07-30 12:39:11.191	162,60	2025-07-30 12:40:18.824	131,80	2025-07-30 12:42:24.962	104,20	2025-07-30 12:43:41.961	68,26	2025-07-30 12:45:00.107	0	2025-07-30 14:28:40.206
198,70	2025-07-30 12:39:11.695	162,60	2025-07-30 12:40:19.327	131,80	2025-07-30 12:42:25.466	104,20	2025-07-30 12:43:42.448	72,05	2025-07-30 12:45:00.611	0	2025-07-30 14:28:40.712
179,86		150,46		121,03		95,39		70,53		0	

Tabel L.8 Data Pengukuran Beban Dan Putaran Turbin Angin Savonius Dua Sudu Variasi Jumlah *Dimple* 416

Tanpa beban			0.5 kg		1 kg		1.5 kg		2 kg	
No.	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
1	509,38	2025-07-30 14:28:26.219	474,04	2025-07-30 14:30:01.400	422,42	2025-07-30 14:31:15.694	409,17	2025-07-30 14:34:36.065	362,56	2025-07-30 14:36:02.854
2	508,88	2025-07-30 14:28:26.704	474,04	2025-07-30 14:30:01.906	429,62	2025-07-30 14:31:16.198	409,17	2025-07-30 14:34:36.582	366,06	2025-07-30 14:36:03.339
3	508,88	2025-07-30 14:28:27.209	472,84	2025-07-30 14:30:02.408	429,62	2025-07-30 14:31:16.701	409,17	2025-07-30 14:34:37.070	366,06	2025-07-30 14:36:03.843
4	506,88	2025-07-30 14:28:27.712	472,84	2025-07-30 14:30:02.914	433,22	2025-07-30 14:31:17.205	402,67	2025-07-30 14:34:37.574	370,76	2025-07-30 14:36:04.346
5	506,88	2025-07-30 14:28:28.231	473,04	2025-07-30 14:30:03.401	433,22	2025-07-30 14:31:17.693	402,67	2025-07-30 14:34:38.081	370,76	2025-07-30 14:36:04.852
6	506,58	2025-07-30 14:28:28.719	473,04	2025-07-30 14:30:03.904	430,92	2025-07-30 14:31:18.198	400,37	2025-07-30 14:34:38.568	376,66	2025-07-30 14:36:05.352
7	506,58	2025-07-30 14:28:29.207	475,74	2025-07-30 14:30:04.407	430,92	2025-07-30 14:31:18.716	400,37	2025-07-30 14:34:39.069	376,66	2025-07-30 14:36:05.842
8	506,08	2025-07-30 14:28:29.711	475,74	2025-07-30 14:30:04.930	426,52	2025-07-30 14:31:19.205	401,57	2025-07-30 14:34:39.576	378,86	2025-07-30 14:36:06.345
9	506,08	2025-07-30 14:28:30.230	479,04	2025-07-30 14:30:05.415	426,52	2025-07-30 14:31:19.692	401,57	2025-07-30 14:34:40.077	378,86	2025-07-30 14:36:06.850
10	505,38	2025-07-30 14:28:30.720	479,04	2025-07-30 14:30:05.933	426,52	2025-07-30 14:31:20.199	402,37	2025-07-30 14:34:40.563	375,56	2025-07-30 14:36:07.355
11	505,38	2025-07-30 14:28:31.205	479,04	2025-07-30 14:30:06.408	427,92	2025-07-30 14:31:20.701	402,37	2025-07-30 14:34:41.085	375,56	2025-07-30 14:36:07.841
12	505,48	2025-07-30 14:28:31.709	479,04	2025-07-30 14:30:06.910	427,92	2025-07-30 14:31:21.205	401,47	2025-07-30 14:34:41.571	374,56	2025-07-30 14:36:08.344
13	505,48	2025-07-30 14:28:32.213	479,04	2025-07-30 14:30:07.415	432,72	2025-07-30 14:31:21.706	401,47	2025-07-30 14:34:42.076	374,56	2025-07-30 14:36:08.865
14	506,98	2025-07-30 14:28:32.717	475,64	2025-07-30 14:30:07.903	432,72	2025-07-30 14:31:22.195	401,47	2025-07-30 14:34:42.577	376,46	2025-07-30 14:36:09.352
15	506,98	2025-07-30 14:28:33.204	475,64	2025-07-30 14:30:08.404	433,12	2025-07-30 14:31:22.715	403,17	2025-07-30 14:34:43.068	376,46	2025-07-30 14:36:09.840
16	509,18	2025-07-30 14:28:33.707	471,34	2025-07-30 14:30:08.910	433,12	2025-07-30 14:31:23.202	403,17	2025-07-30 14:34:43.587	378,06	2025-07-30 14:36:10.359
17	509,18	2025-07-30 14:28:34.211	471,34	2025-07-30 14:30:09.412	431,82	2025-07-30 14:31:23.706	404,87	2025-07-30 14:34:44.074	378,06	2025-07-30 14:36:10.848
18	510,18	2025-07-30 14:28:34.714	466,94	2025-07-30 14:30:09.902	431,82	2025-07-30 14:31:24.209	404,87	2025-07-30 14:34:44.580	377,66	2025-07-30 14:36:11.351
19	510,18	2025-07-30 14:28:35.218	466,94	2025-07-30 14:30:10.404	429,72	2025-07-30 14:31:24.697	402,17	2025-07-30 14:34:45.068	377,66	2025-07-30 14:36:11.838
20	509,38	2025-07-30 14:28:35.709	464,24	2025-07-30 14:30:10.907	429,72	2025-07-30 14:31:25.203	402,17	2025-07-30 14:34:45.569	375,76	2025-07-30 14:36:12.342
21	509,38	2025-07-30 14:28:36.211	464,24	2025-07-30 14:30:11.459	431,22	2025-07-30 14:31:25.720	398,67	2025-07-30 14:34:46.073	375,76	2025-07-30 14:36:12.848
22	511,48	2025-07-30 14:28:36.715	463,14	2025-07-30 14:30:11.899	431,22	2025-07-30 14:31:26.195	398,67	2025-07-30 14:34:46.607	375,76	2025-07-30 14:36:13.352
23	511,48	2025-07-30 14:28:37.236	463,14	2025-07-30 14:30:12.403	435,72	2025-07-30 14:31:26.698	398,67	2025-07-30 14:34:47.064	373,36	2025-07-30 14:36:13.836
24	514,08	2025-07-30 14:28:37.708	463,24	2025-07-30 14:30:12.907	435,72	2025-07-30 14:31:27.201	397,77	2025-07-30 14:34:47.616	373,36	2025-07-30 14:36:14.357
25	514,08	2025-07-30 14:28:38.208	463,24	2025-07-30 14:30:13.429	437,72	2025-07-30 14:31:27.704	397,77	2025-07-30 14:34:48.074	373,36	2025-07-30 14:36:14.847
26	514,08	2025-07-30 14:28:38.712	463,24	2025-07-30 14:30:13.913	437,72	2025-07-30 14:31:28.192	396,27	2025-07-30 14:34:48.574	373,36	2025-07-30 14:36:15.364
27	513,58	2025-07-30 14:28:39.217	461,24	2025-07-30 14:30:14.400	435,92	2025-07-30 14:31:28.696	396,27	2025-07-30 14:34:49.062	375,16	2025-07-30 14:36:15.855
28	513,58	2025-07-30 14:28:39.703	461,24	2025-07-30 14:30:14.907	435,92	2025-07-30 14:31:29.201	394,77	2025-07-30 14:34:49.568	375,16	2025-07-30 14:36:16.387
29	513,88	2025-07-30 14:28:40.206	456,74	2025-07-30 14:30:15.411	433,72	2025-07-30 14:31:29.705	394,77	2025-07-30 14:34:50.069	374,06	2025-07-30 14:36:16.860
30	513,88	2025-07-30 14:28:40.712	456,74	2025-07-30 14:30:15.914	433,72	2025-07-30 14:31:30.208	393,57	2025-07-30 14:34:50.576	374,06	2025-07-30 14:36:17.348
	509,32		469,83		431,62		401,12		374,37	

2.5 kg		3 kg		3,5 kg		4 kg		4,5 kg		5 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
337,59	2025-07-30 14:37:22.323	300,83	2025-07-30 14:38:33.326	277,38	2025-07-30 14:40:23.137	238,38	2025-07-30 14:41:55.992	197,44	2025-07-30 14:43:17.164	161,98	2025-07-30 14:45:04.798
337,59	2025-07-30 14:37:22.826	303,03	2025-07-30 14:38:33.813	277,38	2025-07-30 14:40:23.624	239,38	2025-07-30 14:41:56.493	197,64	2025-07-30 14:43:17.686	161,98	2025-07-30 14:45:05.300
341,89	2025-07-30 14:37:23.329	303,03	2025-07-30 14:38:34.320	277,38	2025-07-30 14:40:24.130	239,38	2025-07-30 14:41:56.981	197,64	2025-07-30 14:43:18.156	161,98	2025-07-30 14:45:05.786
341,89	2025-07-30 14:37:23.820	305,53	2025-07-30 14:38:34.822	273,08	2025-07-30 14:40:24.632	239,38	2025-07-30 14:41:57.486	197,64	2025-07-30 14:43:18.676	157,98	2025-07-30 14:45:06.292
342,49	2025-07-30 14:37:24.337	305,53	2025-07-30 14:38:35.308	273,08	2025-07-30 14:40:25.138	236,38	2025-07-30 14:41:57.990	201,24	2025-07-30 14:43:19.165	157,98	2025-07-30 14:45:06.793
342,49	2025-07-30 14:37:24.824	306,93	2025-07-30 14:38:35.815	268,58	2025-07-30 14:40:25.655	236,38	2025-07-30 14:41:58.507	201,24	2025-07-30 14:43:19.682	158,58	2025-07-30 14:45:07.299
342,49	2025-07-30 14:37:25.363	306,93	2025-07-30 14:38:36.337	268,58	2025-07-30 14:40:26.179	229,68	2025-07-30 14:41:58.981	201,44	2025-07-30 14:43:20.173	158,58	2025-07-30 14:45:07.803
340,29	2025-07-30 14:37:25.833	306,93	2025-07-30 14:38:36.869	264,48	2025-07-30 14:40:26.631	229,68	2025-07-30 14:41:59.485	201,44	2025-07-30 14:43:20.660	158,58	2025-07-30 14:45:08.288
340,29	2025-07-30 14:37:26.355	306,73	2025-07-30 14:38:37.309	264,48	2025-07-30 14:40:27.135	226,48	2025-07-30 14:41:59.988	198,54	2025-07-30 14:43:21.162	158,68	2025-07-30 14:45:08.793
339,99	2025-07-30 14:37:26.825	306,73	2025-07-30 14:38:37.812	265,98	2025-07-30 14:40:27.638	226,48	2025-07-30 14:42:00.507	198,54	2025-07-30 14:43:21.682	158,68	2025-07-30 14:45:09.313
339,99	2025-07-30 14:37:27.328	306,03	2025-07-30 14:38:38.316	265,98	2025-07-30 14:40:28.124	229,48	2025-07-30 14:42:00.980	197,64	2025-07-30 14:43:22.154	158,68	2025-07-30 14:45:09.799
342,59	2025-07-30 14:37:27.817	306,03	2025-07-30 14:38:38.819	268,38	2025-07-30 14:40:28.631	229,48	2025-07-30 14:42:01.482	197,64	2025-07-30 14:43:22.677	158,08	2025-07-30 14:45:10.290
342,59	2025-07-30 14:37:28.319	302,13	2025-07-30 14:38:39.324	268,38	2025-07-30 14:40:29.133	234,98	2025-07-30 14:42:01.985	197,64	2025-07-30 14:43:23.161	158,08	2025-07-30 14:45:10.791
344,49	2025-07-30 14:37:28.854	302,13	2025-07-30 14:38:39.811	271,38	2025-07-30 14:40:29.640	234,98	2025-07-30 14:42:02.491	200,34	2025-07-30 14:43:23.668	162,38	2025-07-30 14:45:11.295
344,49	2025-07-30 14:37:29.325	299,13	2025-07-30 14:38:40.352	271,38	2025-07-30 14:40:30.126	240,48	2025-07-30 14:42:02.996	200,34	2025-07-30 14:43:24.152	162,38	2025-07-30 14:45:11.801
344,49	2025-07-30 14:37:29.829	299,13	2025-07-30 14:38:40.822	272,18	2025-07-30 14:40:30.644	240,48	2025-07-30 14:42:03.498	204,94	2025-07-30 14:43:24.673	162,38	2025-07-30 14:45:12.287
343,59	2025-07-30 14:37:30.333	301,73	2025-07-30 14:38:41.325	272,18	2025-07-30 14:40:31.133	244,28	2025-07-30 14:42:03.985	204,94	2025-07-30 14:43:25.159	168,38	2025-07-30 14:45:12.791
343,59	2025-07-30 14:37:30.820	301,73	2025-07-30 14:38:41.812	270,08	2025-07-30 14:40:31.670	244,28	2025-07-30 14:42:04.487	204,94	2025-07-30 14:43:25.666	168,38	2025-07-30 14:45:13.294
344,09	2025-07-30 14:37:31.325	301,73	2025-07-30 14:38:42.330	270,08	2025-07-30 14:40:32.125	245,48	2025-07-30 14:42:04.994	208,54	2025-07-30 14:43:26.168	173,68	2025-07-30 14:45:13.798
344,09	2025-07-30 14:37:31.816	304,83	2025-07-30 14:38:42.833	269,38	2025-07-30 14:40:32.626	245,48	2025-07-30 14:42:05.478	208,54	2025-07-30 14:43:26.656	173,68	2025-07-30 14:45:14.349
343,99	2025-07-30 14:37:32.318	304,83	2025-07-30 14:38:43.337	269,38	2025-07-30 14:40:33.166	245,58	2025-07-30 14:42:05.985	208,54	2025-07-30 14:43:27.161	176,88	2025-07-30 14:45:14.789
343,99	2025-07-30 14:37:32.835	306,03	2025-07-30 14:38:43.809	269,38	2025-07-30 14:40:33.651	245,58	2025-07-30 14:42:06.486	210,04	2025-07-30 14:43:27.713	176,88	2025-07-30 14:45:15.327
343,99	2025-07-30 14:37:33.338	306,03	2025-07-30 14:38:44.315	270,78	2025-07-30 14:40:34.123	242,08	2025-07-30 14:42:07.006	210,04	2025-07-30 14:43:28.168	176,88	2025-07-30 14:45:15.799
340,39	2025-07-30 14:37:33.858	306,13	2025-07-30 14:38:44.817	270,78	2025-07-30 14:40:34.625	242,08	2025-07-30 14:42:07.478	212,74	2025-07-30 14:43:28.653	176,68	2025-07-30 14:45:16.301
340,39	2025-07-30 14:37:34.317	306,13	2025-07-30 14:38:45.335	273,68	2025-07-30 14:40:35.131	242,08	2025-07-30 14:42:07.980	212,74	2025-07-30 14:43:29.175	176,68	2025-07-30 14:45:16.788
340,39	2025-07-30 14:37:34.819	306,13	2025-07-30 14:38:45.840	273,68	2025-07-30 14:40:35.633	235,58	2025-07-30 14:42:08.487	214,44	2025-07-30 14:43:29.692	174,78	2025-07-30 14:45:17.295
340,39	2025-07-30 14:37:35.323	301,73	2025-07-30 14:38:46.330	273,68	2025-07-30 14:40:36.139	235,58	2025-07-30 14:42:08.989	214,44	2025-07-30 14:43:30.166	174,78	2025-07-30 14:45:17.795
342,19	2025-07-30 14:37:35.827	301,73	2025-07-30 14:38:46.815	275,08	2025-07-30 14:40:36.627	231,28	2025-07-30 14:42:09.493	214,44	2025-07-30 14:43:30.655	173,48	2025-07-30 14:45:18.302
342,19	2025-07-30 14:37:36.314	298,33	2025-07-30 14:38:47.336	275,08	2025-07-30 14:40:37.129	231,28	2025-07-30 14:42:09.982	213,54	2025-07-30 14:43:31.158	173,48	2025-07-30 14:45:18.789
344,39	2025-07-30 14:37:36.817	298,33	2025-07-30 14:38:47.888	277,18	2025-07-30 14:40:37.634	228,38	2025-07-30 14:42:10.484	213,54	2025-07-30 14:43:31.663	173,48	2025-07-30 14:45:19.294
342,11		303,74		271,28		237,02		204,76		166,50	

5,5 kg		6 kg		6,5 kg		7 kg		7,5 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
122,52	2025-07-30 14:48:08.820	79,34	2025-07-30 14:49:38.087	68,95	2025-07-30 14:50:51.822	35,15	2025-07-30 14:52:27.035	0	2025-07-30 14:56:43.085
125,82	2025-07-30 14:48:09.344	79,34	2025-07-30 14:49:38.574	68,95	2025-07-30 14:50:52.308	35,01	2025-07-30 14:52:27.539	0	2025-07-30 14:56:43.570
125,82	2025-07-30 14:48:09.833	79,34	2025-07-30 14:49:39.077	68,95	2025-07-30 14:50:52.811	35,01	2025-07-30 14:52:28.027	0	2025-07-30 14:56:44.074
125,82	2025-07-30 14:48:10.320	84,87	2025-07-30 14:49:39.600	69,07	2025-07-30 14:50:53.318	35,01	2025-07-30 14:52:28.529	0	2025-07-30 14:56:44.580
127,92	2025-07-30 14:48:10.824	84,87	2025-07-30 14:49:40.119	69,07	2025-07-30 14:50:53.822	33,61	2025-07-30 14:52:29.035	0	2025-07-30 14:56:45.084
127,92	2025-07-30 14:48:11.325	88,17	2025-07-30 14:49:40.572	69,07	2025-07-30 14:50:54.322	33,61	2025-07-30 14:52:29.535	0	2025-07-30 14:56:45.585
127,92	2025-07-30 14:48:11.848	88,17	2025-07-30 14:49:41.077	70,43	2025-07-30 14:50:54.813	34,93	2025-07-30 14:52:30.024	0	2025-07-30 14:56:46.075
130,32	2025-07-30 14:48:12.318	88,17	2025-07-30 14:49:41.580	70,43	2025-07-30 14:50:55.331	34,93	2025-07-30 14:52:30.528	0	2025-07-30 14:56:46.578
130,32	2025-07-30 14:48:12.820	87,99	2025-07-30 14:49:42.084	70,43	2025-07-30 14:50:55.820	39,02	2025-07-30 14:52:31.033	0	2025-07-30 14:56:47.099
130,32	2025-07-30 14:48:13.328	87,99	2025-07-30 14:49:42.589	69,85	2025-07-30 14:50:56.322	39,02	2025-07-30 14:52:31.535	0	2025-07-30 14:56:47.568
127,92	2025-07-30 14:48:13.830	87,99	2025-07-30 14:49:43.076	69,85	2025-07-30 14:50:56.810	39,02	2025-07-30 14:52:32.023	0	2025-07-30 14:56:48.071
127,92	2025-07-30 14:48:14.335	88,55	2025-07-30 14:49:43.596	69,85	2025-07-30 14:50:57.330	40,15	2025-07-30 14:52:32.526	0	2025-07-30 14:56:48.577
127,92	2025-07-30 14:48:14.821	88,55	2025-07-30 14:49:44.082	64,26	2025-07-30 14:50:57.816	40,15	2025-07-30 14:52:33.032	0	2025-07-30 14:56:49.079
126,62	2025-07-30 14:48:15.324	92,14	2025-07-30 14:49:44.586	64,26	2025-07-30 14:50:58.323	36,79	2025-07-30 14:52:33.534	0	2025-07-30 14:56:49.584
126,62	2025-07-30 14:48:15.860	92,14	2025-07-30 14:49:45.073	64,26	2025-07-30 14:50:58.840	36,79	2025-07-30 14:52:34.021	0	2025-07-30 14:56:50.072
126,62	2025-07-30 14:48:16.331	94,20	2025-07-30 14:49:45.577	59,34	2025-07-30 14:50:59.312	40,16	2025-07-30 14:52:34.528	0	2025-07-30 14:56:50.576
129,02	2025-07-30 14:48:16.817	94,20	2025-07-30 14:49:46.081	59,34	2025-07-30 14:50:59.831	40,16	2025-07-30 14:52:35.028	0	2025-07-30 14:56:51.080
129,02	2025-07-30 14:48:17.324	94,20	2025-07-30 14:49:46.584	59,34	2025-07-30 14:51:00.321	42,71	2025-07-30 14:52:35.533	0	2025-07-30 14:56:51.582
132,62	2025-07-30 14:48:17.828	93,49	2025-07-30 14:49:47.074	59,34	2025-07-30 14:51:00.808	42,71	2025-07-30 14:52:36.039	0	2025-07-30 14:56:52.072
132,62	2025-07-30 14:48:18.331	93,49	2025-07-30 14:49:47.590	60,98	2025-07-30 14:51:01.311	42,71	2025-07-30 14:52:36.526	0	2025-07-30 14:56:52.575
132,62	2025-07-30 14:48:18.848	94,47	2025-07-30 14:49:48.095	60,98	2025-07-30 14:51:01.814	39,73	2025-07-30 14:52:37.030	0	2025-07-30 14:56:53.075
136,62	2025-07-30 14:48:19.336	94,47	2025-07-30 14:49:48.585	60,98	2025-07-30 14:51:02.318	39,73	2025-07-30 14:52:37.531	0	2025-07-30 14:56:53.582
136,62	2025-07-30 14:48:19.856	98,58	2025-07-30 14:49:49.071	64,30	2025-07-30 14:51:02.822	39,94	2025-07-30 14:52:38.051	0	2025-07-30 14:56:54.068
136,62	2025-07-30 14:48:20.330	98,58	2025-07-30 14:49:49.575	64,30	2025-07-30 14:51:03.309	39,94	2025-07-30 14:52:38.523	0	2025-07-30 14:56:54.590
139,92	2025-07-30 14:48:20.864	98,58	2025-07-30 14:49:50.115	64,30	2025-07-30 14:51:03.813	39,94	2025-07-30 14:52:39.043	0	2025-07-30 14:56:55.076
139,92	2025-07-30 14:48:21.321	103,88	2025-07-30 14:49:50.582	63,23	2025-07-30 14:51:04.347	36,27	2025-07-30 14:52:39.531	0	2025-07-30 14:56:55.579
144,82	2025-07-30 14:48:21.824	103,88	2025-07-30 14:49:51.088	63,23	2025-07-30 14:51:04.823	36,27	2025-07-30 14:52:40.034	0	2025-07-30 14:56:56.066
144,82	2025-07-30 14:48:22.327	106,58	2025-07-30 14:49:51.574	63,23	2025-07-30 14:51:05.307	33,59	2025-07-30 14:52:40.522	0	2025-07-30 14:56:56.570
144,82	2025-07-30 14:48:22.833	106,58	2025-07-30 14:49:52.080	62,04	2025-07-30 14:51:05.857	33,59	2025-07-30 14:52:41.026	0	2025-07-30 14:56:57.074
147,32	2025-07-30 14:48:23.322	107,18	2025-07-30 14:49:52.584	62,04	2025-07-30 14:51:06.347	33,59	2025-07-30 14:52:41.529	0	2025-07-30 14:56:57.578
132,19		92,67		65,16		37,64		0	

Tabel L.9 Data Pengukuran Beban Dan Putaran Turbin Angin Savonius Dua Sudu Variasi Jumlah *Dimple* 448

Tanpa beban			0.5 kg		1 kg		1.5 kg		2 kg	
No.	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
1	479,66	2025-07-30 14:56:43.085	442,82	2025-07-30 14:59:06.064	406,79	2025-07-30 15:02:23.323	388,33	2025-07-30 15:04:07.529	344,55	2025-07-30 15:08:33.276
2	479,66	2025-07-30 14:56:43.570	437,72	2025-07-30 14:59:06.565	411,09	2025-07-30 15:02:23.810	383,33	2025-07-30 15:04:08.021	342,05	2025-07-30 15:08:33.763
3	479,06	2025-07-30 14:56:44.074	437,72	2025-07-30 14:59:07.070	411,09	2025-07-30 15:02:24.312	383,33	2025-07-30 15:04:08.524	342,05	2025-07-30 15:08:34.250
4	479,06	2025-07-30 14:56:44.580	441,12	2025-07-30 14:59:07.572	412,99	2025-07-30 15:02:24.819	379,93	2025-07-30 15:04:09.025	342,05	2025-07-30 15:08:34.753
5	478,56	2025-07-30 14:56:45.084	441,12	2025-07-30 14:59:08.060	412,99	2025-07-30 15:02:25.323	379,93	2025-07-30 15:04:09.545	343,95	2025-07-30 15:08:35.256
6	478,56	2025-07-30 14:56:45.585	446,32	2025-07-30 14:59:08.565	409,59	2025-07-30 15:02:25.810	380,63	2025-07-30 15:04:10.021	343,95	2025-07-30 15:08:35.760
7	478,26	2025-07-30 14:56:46.075	446,32	2025-07-30 14:59:09.067	409,59	2025-07-30 15:02:26.314	380,63	2025-07-30 15:04:10.507	348,05	2025-07-30 15:08:36.248
8	478,26	2025-07-30 14:56:46.578	446,32	2025-07-30 14:59:09.586	404,59	2025-07-30 15:02:26.818	383,23	2025-07-30 15:04:11.011	348,05	2025-07-30 15:08:36.753
9	476,16	2025-07-30 14:56:47.099	451,12	2025-07-30 14:59:10.075	404,59	2025-07-30 15:02:27.338	383,23	2025-07-30 15:04:11.516	351,45	2025-07-30 15:08:37.270
10	476,16	2025-07-30 14:56:47.568	451,12	2025-07-30 14:59:10.565	404,59	2025-07-30 15:02:27.823	383,23	2025-07-30 15:04:12.018	351,45	2025-07-30 15:08:37.761
11	473,96	2025-07-30 14:56:48.071	452,12	2025-07-30 14:59:11.068	403,29	2025-07-30 15:02:28.313	383,23	2025-07-30 15:04:12.521	349,15	2025-07-30 15:08:38.247
12	473,96	2025-07-30 14:56:48.577	452,12	2025-07-30 14:59:11.572	403,29	2025-07-30 15:02:28.833	383,23	2025-07-30 15:04:13.011	349,15	2025-07-30 15:08:38.752
13	474,06	2025-07-30 14:56:49.079	450,72	2025-07-30 14:59:12.074	405,99	2025-07-30 15:02:29.317	381,03	2025-07-30 15:04:13.531	347,25	2025-07-30 15:08:39.269
14	474,06	2025-07-30 14:56:49.584	450,72	2025-07-30 14:59:12.562	405,99	2025-07-30 15:02:29.824	381,03	2025-07-30 15:04:14.018	347,25	2025-07-30 15:08:39.758
15	477,46	2025-07-30 14:56:50.072	450,22	2025-07-30 14:59:13.068	409,69	2025-07-30 15:02:30.311	379,93	2025-07-30 15:04:14.536	346,85	2025-07-30 15:08:40.292
16	477,46	2025-07-30 14:56:50.576	450,22	2025-07-30 14:59:13.572	409,69	2025-07-30 15:02:30.815	379,93	2025-07-30 15:04:15.006	346,85	2025-07-30 15:08:40.749
17	481,46	2025-07-30 14:56:51.080	447,92	2025-07-30 14:59:14.072	413,99	2025-07-30 15:02:31.320	379,93	2025-07-30 15:04:15.511	346,85	2025-07-30 15:08:41.255
18	481,46	2025-07-30 14:56:51.582	447,92	2025-07-30 14:59:14.560	413,99	2025-07-30 15:02:31.822	376,93	2025-07-30 15:04:16.033	344,95	2025-07-30 15:08:41.757
19	481,96	2025-07-30 14:56:52.072	444,42	2025-07-30 14:59:15.081	416,69	2025-07-30 15:02:32.308	376,93	2025-07-30 15:04:16.504	344,95	2025-07-30 15:08:42.278
20	481,96	2025-07-30 14:56:52.575	444,42	2025-07-30 14:59:15.569	416,69	2025-07-30 15:02:32.813	372,33	2025-07-30 15:04:17.008	344,85	2025-07-30 15:08:42.749
21	479,16	2025-07-30 14:56:53.075	442,02	2025-07-30 14:59:16.071	417,09	2025-07-30 15:02:33.318	372,33	2025-07-30 15:04:17.509	344,85	2025-07-30 15:08:43.252
22	479,16	2025-07-30 14:56:53.582	442,02	2025-07-30 14:59:16.560	417,09	2025-07-30 15:02:33.820	371,23	2025-07-30 15:04:18.013	345,05	2025-07-30 15:08:43.756
23	478,46	2025-07-30 14:56:54.068	431,12	2025-07-30 14:59:17.062	416,49	2025-07-30 15:02:34.322	371,23	2025-07-30 15:04:18.533	345,05	2025-07-30 15:08:44.276
24	478,46	2025-07-30 14:56:54.590	431,12	2025-07-30 14:59:17.567	416,49	2025-07-30 15:02:34.813	371,83	2025-07-30 15:04:19.021	342,05	2025-07-30 15:08:44.748
25	480,06	2025-07-30 14:56:55.076	428,12	2025-07-30 14:59:18.089	414,99	2025-07-30 15:02:35.314	371,83	2025-07-30 15:04:19.510	342,05	2025-07-30 15:08:45.284
26	480,06	2025-07-30 14:56:55.579	428,12	2025-07-30 14:59:18.574	414,99	2025-07-30 15:02:35.820	371,13	2025-07-30 15:04:20.030	338,95	2025-07-30 15:08:45.756
27	477,56	2025-07-30 14:56:56.066	446,92	2025-07-30 14:59:19.096	414,99	2025-07-30 15:02:36.323	371,13	2025-07-30 15:04:20.519	338,95	2025-07-30 15:08:46.275
28	477,56	2025-07-30 14:56:56.570	446,92	2025-07-30 14:59:19.564	413,69	2025-07-30 15:02:36.826	372,03	2025-07-30 15:04:21.003	338,95	2025-07-30 15:08:46.746
29	475,16	2025-07-30 14:56:57.074	446,92	2025-07-30 14:59:20.086	413,69	2025-07-30 15:02:37.329	372,03	2025-07-30 15:04:21.509	338,65	2025-07-30 15:08:47.268
30	475,16	2025-07-30 14:56:57.578	465,42	2025-07-30 14:59:20.573	413,69	2025-07-30 15:02:37.817	374,73	2025-07-30 15:04:22.011	338,65	2025-07-30 15:08:47.772
	478,07		444,71		411,35		377,99		344,63	

2.5 kg		3 kg		3,5 kg		4 kg		4,5 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
313,68	2025-07-30 15:10:01.573	279,08	2025-07-30 15:11:38.927	242,59	2025-07-30 15:13:16.695	209,41	2025-07-30 15:16:55.348	168,48	2025-07-30 15:19:07.207
313,68	2025-07-30 15:10:02.064	279,08	2025-07-30 15:11:39.427	248,69	2025-07-30 15:13:17.199	209,41	2025-07-30 15:16:55.836	168,08	2025-07-30 15:19:07.697
312,78	2025-07-30 15:10:02.572	279,08	2025-07-30 15:11:39.918	248,69	2025-07-30 15:13:17.701	207,11	2025-07-30 15:16:56.324	168,08	2025-07-30 15:19:08.198
312,78	2025-07-30 15:10:03.071	281,28	2025-07-30 15:11:40.419	249,49	2025-07-30 15:13:18.205	207,11	2025-07-30 15:16:56.827	168,08	2025-07-30 15:19:08.702
310,98	2025-07-30 15:10:03.574	281,28	2025-07-30 15:11:40.926	249,49	2025-07-30 15:13:18.694	207,11	2025-07-30 15:16:57.348	166,78	2025-07-30 15:19:09.205
310,98	2025-07-30 15:10:04.063	282,18	2025-07-30 15:11:41.459	249,49	2025-07-30 15:13:19.198	207,21	2025-07-30 15:16:57.833	166,78	2025-07-30 15:19:09.695
310,98	2025-07-30 15:10:04.567	282,18	2025-07-30 15:11:41.933	246,99	2025-07-30 15:13:19.700	207,21	2025-07-30 15:16:58.323	166,18	2025-07-30 15:19:10.199
313,58	2025-07-30 15:10:05.087	280,08	2025-07-30 15:11:42.421	246,99	2025-07-30 15:13:20.206	206,91	2025-07-30 15:16:58.824	166,18	2025-07-30 15:19:10.701
313,58	2025-07-30 15:10:05.590	280,08	2025-07-30 15:11:42.923	244,59	2025-07-30 15:13:20.693	206,91	2025-07-30 15:16:59.330	166,18	2025-07-30 15:19:11.204
316,58	2025-07-30 15:10:06.096	281,78	2025-07-30 15:11:43.427	244,59	2025-07-30 15:13:21.192	202,21	2025-07-30 15:16:59.832	166,78	2025-07-30 15:19:11.694
316,58	2025-07-30 15:10:06.564	281,78	2025-07-30 15:11:43.932	244,79	2025-07-30 15:13:21.702	202,21	2025-07-30 15:17:00.322	166,78	2025-07-30 15:19:12.198
312,28	2025-07-30 15:10:07.069	286,28	2025-07-30 15:11:44.421	244,79	2025-07-30 15:13:22.204	199,41	2025-07-30 15:17:00.826	167,48	2025-07-30 15:19:12.699
312,28	2025-07-30 15:10:07.572	286,28	2025-07-30 15:11:44.922	244,79	2025-07-30 15:13:22.706	199,41	2025-07-30 15:17:01.330	167,48	2025-07-30 15:19:13.204
308,48	2025-07-30 15:10:08.075	286,48	2025-07-30 15:11:45.426	241,49	2025-07-30 15:13:23.193	199,41	2025-07-30 15:17:01.832	167,48	2025-07-30 15:19:13.708
308,48	2025-07-30 15:10:08.564	286,48	2025-07-30 15:11:45.930	241,49	2025-07-30 15:13:23.699	199,21	2025-07-30 15:17:02.351	171,58	2025-07-30 15:19:14.194
305,98	2025-07-30 15:10:09.068	286,48	2025-07-30 15:11:46.419	230,19	2025-07-30 15:13:24.201	199,21	2025-07-30 15:17:02.822	171,58	2025-07-30 15:19:14.713
305,98	2025-07-30 15:10:09.572	284,88	2025-07-30 15:11:46.921	230,19	2025-07-30 15:13:24.705	198,61	2025-07-30 15:17:03.328	176,78	2025-07-30 15:19:15.205
303,68	2025-07-30 15:10:10.076	284,88	2025-07-30 15:11:47.425	219,69	2025-07-30 15:13:25.193	198,61	2025-07-30 15:17:03.830	176,78	2025-07-30 15:19:15.705
303,68	2025-07-30 15:10:10.562	278,58	2025-07-30 15:11:47.945	219,69	2025-07-30 15:13:25.711	199,71	2025-07-30 15:17:04.334	180,18	2025-07-30 15:19:16.196
303,88	2025-07-30 15:10:11.068	278,58	2025-07-30 15:11:48.433	217,29	2025-07-30 15:13:26.201	199,71	2025-07-30 15:17:04.823	180,18	2025-07-30 15:19:16.713
303,88	2025-07-30 15:10:11.569	270,38	2025-07-30 15:11:48.920	217,29	2025-07-30 15:13:26.705	199,01	2025-07-30 15:17:05.327	180,18	2025-07-30 15:19:17.203
305,38	2025-07-30 15:10:12.074	270,38	2025-07-30 15:11:49.426	223,19	2025-07-30 15:13:27.194	199,01	2025-07-30 15:17:05.830	179,48	2025-07-30 15:19:17.705
305,38	2025-07-30 15:10:12.561	270,38	2025-07-30 15:11:49.929	223,19	2025-07-30 15:13:27.697	199,01	2025-07-30 15:17:06.334	179,48	2025-07-30 15:19:18.192
307,88	2025-07-30 15:10:13.065	264,68	2025-07-30 15:11:50.433	231,29	2025-07-30 15:13:28.199	198,51	2025-07-30 15:17:06.822	173,28	2025-07-30 15:19:18.697
307,88	2025-07-30 15:10:13.569	264,68	2025-07-30 15:11:50.919	231,29	2025-07-30 15:13:28.702	198,51	2025-07-30 15:17:07.326	173,28	2025-07-30 15:19:19.216
308,18	2025-07-30 15:10:14.072	259,58	2025-07-30 15:11:51.440	237,19	2025-07-30 15:13:29.206	199,41	2025-07-30 15:17:07.830	173,28	2025-07-30 15:19:19.705
308,18	2025-07-30 15:10:14.576	259,58	2025-07-30 15:11:51.939	237,19	2025-07-30 15:13:29.695	199,41	2025-07-30 15:17:08.349	167,88	2025-07-30 15:19:20.191
306,48	2025-07-30 15:10:15.066	256,98	2025-07-30 15:11:52.432	237,19	2025-07-30 15:13:30.197	202,31	2025-07-30 15:17:08.818	167,88	2025-07-30 15:19:20.694
306,48	2025-07-30 15:10:15.570	256,98	2025-07-30 15:11:52.917	241,29	2025-07-30 15:13:30.704	202,31	2025-07-30 15:17:09.323	167,88	2025-07-30 15:19:21.198
307,38	2025-07-30 15:10:16.073	256,98	2025-07-30 15:11:53.422	241,29	2025-07-30 15:13:31.206	202,01	2025-07-30 15:17:09.826	164,48	2025-07-30 15:19:21.702
309,27		275,91		237,55		202,19		170,83	

5 kg		5,5 kg		6 kg		6,5 kg		7 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
137,48	2025-07-30 15:22:33.977	110,12	2025-07-30 15:25:33.539	56,43	2025-07-30 15:27:42.089	37,30	2025-07-30 15:29:33.766	0	2025-07-30 15:36:40.264
137,48	2025-07-30 15:22:34.531	110,12	2025-07-30 15:25:34.057	58,91	2025-07-30 15:27:42.596	37,30	2025-07-30 15:29:34.287	0	2025-07-30 15:36:40.754
137,48	2025-07-30 15:22:35.017	110,12	2025-07-30 15:25:34.531	58,91	2025-07-30 15:27:43.083	37,30	2025-07-30 15:29:34.774	0	2025-07-30 15:36:41.255
138,98	2025-07-30 15:22:35.502	102,62	2025-07-30 15:25:35.035	58,91	2025-07-30 15:27:43.585	37,16	2025-07-30 15:29:35.262	0	2025-07-30 15:36:41.759
138,98	2025-07-30 15:22:36.006	102,62	2025-07-30 15:25:35.539	59,72	2025-07-30 15:27:44.091	37,16	2025-07-30 15:29:35.766	0	2025-07-30 15:36:42.263
141,08	2025-07-30 15:22:36.480	105,82	2025-07-30 15:25:36.044	59,72	2025-07-30 15:27:44.593	34,54	2025-07-30 15:29:36.267	0	2025-07-30 15:36:42.767
141,08	2025-07-30 15:22:36.967	105,82	2025-07-30 15:25:36.547	59,72	2025-07-30 15:27:45.098	34,54	2025-07-30 15:29:36.772	0	2025-07-30 15:36:43.254
143,08	2025-07-30 15:22:37.471	107,02	2025-07-30 15:25:37.035	62,07	2025-07-30 15:27:45.587	33,18	2025-07-30 15:29:37.310	0	2025-07-30 15:36:43.775
143,08	2025-07-30 15:22:37.974	107,02	2025-07-30 15:25:37.536	62,07	2025-07-30 15:27:46.090	33,18	2025-07-30 15:29:37.762	0	2025-07-30 15:36:44.264
142,88	2025-07-30 15:22:38.476	109,62	2025-07-30 15:25:38.040	62,07	2025-07-30 15:27:46.593	33,18	2025-07-30 15:29:38.285	0	2025-07-30 15:36:44.764
142,88	2025-07-30 15:22:38.963	109,62	2025-07-30 15:25:38.544	69,55	2025-07-30 15:27:47.096	32,71	2025-07-30 15:29:38.788	0	2025-07-30 15:36:45.268
144,88	2025-07-30 15:22:39.465	112,12	2025-07-30 15:25:39.034	69,55	2025-07-30 15:27:47.584	32,71	2025-07-30 15:29:39.274	0	2025-07-30 15:36:45.757
144,88	2025-07-30 15:22:39.988	112,12	2025-07-30 15:25:39.554	77,45	2025-07-30 15:27:48.088	32,71	2025-07-30 15:29:39.765	0	2025-07-30 15:36:46.258
148,28	2025-07-30 15:22:40.460	112,12	2025-07-30 15:25:40.039	77,45	2025-07-30 15:27:48.592	37,46	2025-07-30 15:29:40.267	0	2025-07-30 15:36:46.763
148,28	2025-07-30 15:22:40.966	113,82	2025-07-30 15:25:40.543	77,45	2025-07-30 15:27:49.097	37,46	2025-07-30 15:29:40.804	0	2025-07-30 15:36:47.252
147,28	2025-07-30 15:22:41.484	113,82	2025-07-30 15:25:41.030	75,75	2025-07-30 15:27:49.584	37,46	2025-07-30 15:29:41.305	0	2025-07-30 15:36:47.756
147,28	2025-07-30 15:22:41.972	110,22	2025-07-30 15:25:41.535	75,75	2025-07-30 15:27:50.087	37,46	2025-07-30 15:29:41.760	0	2025-07-30 15:36:48.260
136,18	2025-07-30 15:22:42.474	110,22	2025-07-30 15:25:42.035	75,75	2025-07-30 15:27:50.623	42,86	2025-07-30 15:29:42.265	0	2025-07-30 15:36:48.763
136,18	2025-07-30 15:22:42.964	100,82	2025-07-30 15:25:42.541	72,22	2025-07-30 15:27:51.097	42,86	2025-07-30 15:29:42.785	0	2025-07-30 15:36:49.268
136,18	2025-07-30 15:22:43.466	100,82	2025-07-30 15:25:43.045	72,22	2025-07-30 15:27:51.614	39,77	2025-07-30 15:29:43.288	0	2025-07-30 15:36:49.753
124,68	2025-07-30 15:22:43.972	100,82	2025-07-30 15:25:43.533	72,22	2025-07-30 15:27:52.086	39,77	2025-07-30 15:29:43.761	0	2025-07-30 15:36:50.277
124,68	2025-07-30 15:22:44.473	95,72	2025-07-30 15:25:44.038	70,90	2025-07-30 15:27:52.590	39,77	2025-07-30 15:29:44.280	0	2025-07-30 15:36:50.763
120,78	2025-07-30 15:22:44.976	95,72	2025-07-30 15:25:44.543	70,90	2025-07-30 15:27:53.110	39,77	2025-07-30 15:29:44.799	0	2025-07-30 15:36:51.268
120,78	2025-07-30 15:22:45.467	98,72	2025-07-30 15:25:45.043	70,90	2025-07-30 15:27:53.597	38,19	2025-07-30 15:29:45.304	0	2025-07-30 15:36:51.769
120,78	2025-07-30 15:22:45.968	98,72	2025-07-30 15:25:45.532	66,22	2025-07-30 15:27:54.084	38,19	2025-07-30 15:29:45.774	0	2025-07-30 15:36:52.260
121,18	2025-07-30 15:22:46.472	106,02	2025-07-30 15:25:46.036	66,22	2025-07-30 15:27:54.589	38,19	2025-07-30 15:29:46.262	0	2025-07-30 15:36:52.761
121,18	2025-07-30 15:22:46.976	106,02	2025-07-30 15:25:46.541	66,22	2025-07-30 15:27:55.091	42,23	2025-07-30 15:29:46.767	0	2025-07-30 15:36:53.282
121,38	2025-07-30 15:22:47.477	106,02	2025-07-30 15:25:47.045	63,86	2025-07-30 15:27:55.598	42,23	2025-07-30 15:29:47.283	0	2025-07-30 15:36:53.752
121,38	2025-07-30 15:22:47.968	106,22	2025-07-30 15:25:47.545	63,86	2025-07-30 15:27:56.085	42,23	2025-07-30 15:29:47.757	0	2025-07-30 15:36:54.291
121,38	2025-07-30 15:22:48.470	106,22	2025-07-30 15:25:48.035	70,93	2025-07-30 15:27:56.590	42,23	2025-07-30 15:29:48.262	0	2025-07-30 15:36:54.760
135,07		106,23		67,46		37,70		0	

Tabel L.10 Data Pengukuran Beban Dan Putaran Turbin Angin Savonius Dua Sudu Variasi Jumlah *Dimple* 480

Tanpa beban			0.5 kg		1 kg		1.5 kg		2 kg		2.5 kg	
No.	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
1	418,80	2025-07-30 15:36:40.264	406,10	2025-07-30 15:39:06.692	373,10	2025-07-30 15:40:32.368	337,31	2025-07-30 15:42:55.724	326,50	2025-07-30 15:44:30.454	285,80	2025-07-30 15:46:56.691
2	426,70	2025-07-30 15:36:40.754	406,10	2025-07-30 15:39:07.200	373,10	2025-07-30 15:40:32.840	342,01	2025-07-30 15:42:56.228	326,50	2025-07-30 15:44:30.973	285,80	2025-07-30 15:46:57.180
3	426,70	2025-07-30 15:36:41.255	408,80	2025-07-30 15:39:07.685	371,20	2025-07-30 15:40:33.343	342,01	2025-07-30 15:42:56.715	327,40	2025-07-30 15:44:31.460	282,90	2025-07-30 15:46:57.684
4	431,00	2025-07-30 15:36:41.759	408,80	2025-07-30 15:39:08.204	371,20	2025-07-30 15:40:33.849	342,71	2025-07-30 15:42:57.234	327,40	2025-07-30 15:44:31.961	282,90	2025-07-30 15:46:58.188
5	431,00	2025-07-30 15:36:42.263	410,10	2025-07-30 15:39:08.712	375,00	2025-07-30 15:40:34.351	342,71	2025-07-30 15:42:57.721	327,60	2025-07-30 15:44:32.451	281,00	2025-07-30 15:46:58.693
6	432,00	2025-07-30 15:36:42.767	410,10	2025-07-30 15:39:09.199	375,00	2025-07-30 15:40:34.857	342,21	2025-07-30 15:42:58.224	327,60	2025-07-30 15:44:32.955	281,00	2025-07-30 15:46:59.181
7	432,00	2025-07-30 15:36:43.254	408,50	2025-07-30 15:39:09.734	376,20	2025-07-30 15:40:35.342	342,21	2025-07-30 15:42:58.727	326,70	2025-07-30 15:44:33.458	281,50	2025-07-30 15:46:59.684
8	432,00	2025-07-30 15:36:43.775	408,50	2025-07-30 15:39:10.187	376,20	2025-07-30 15:40:35.849	341,11	2025-07-30 15:42:59.215	326,70	2025-07-30 15:44:33.945	281,50	2025-07-30 15:47:00.189
9	430,10	2025-07-30 15:36:44.264	408,50	2025-07-30 15:39:10.692	376,20	2025-07-30 15:40:36.350	341,11	2025-07-30 15:42:59.721	322,20	2025-07-30 15:44:34.452	283,30	2025-07-30 15:47:00.692
10	430,10	2025-07-30 15:36:44.764	408,50	2025-07-30 15:39:11.194	378,10	2025-07-30 15:40:36.856	341,31	2025-07-30 15:43:00.240	322,20	2025-07-30 15:44:34.955	283,30	2025-07-30 15:47:01.197
11	430,10	2025-07-30 15:36:45.268	408,00	2025-07-30 15:39:11.700	378,10	2025-07-30 15:40:37.343	341,31	2025-07-30 15:43:00.727	322,20	2025-07-30 15:44:35.456	282,10	2025-07-30 15:47:01.681
12	430,10	2025-07-30 15:36:45.757	408,00	2025-07-30 15:39:12.204	381,80	2025-07-30 15:40:37.844	341,31	2025-07-30 15:43:01.231	321,00	2025-07-30 15:44:35.961	282,10	2025-07-30 15:47:02.188
13	429,40	2025-07-30 15:36:46.258	410,10	2025-07-30 15:39:12.689	381,80	2025-07-30 15:40:38.364	347,11	2025-07-30 15:43:01.721	321,00	2025-07-30 15:44:36.450	282,10	2025-07-30 15:47:02.689
14	429,40	2025-07-30 15:36:46.763	410,10	2025-07-30 15:39:13.211	385,40	2025-07-30 15:40:38.855	347,11	2025-07-30 15:43:02.222	320,80	2025-07-30 15:44:36.951	279,00	2025-07-30 15:47:03.191
15	426,20	2025-07-30 15:36:47.252	410,10	2025-07-30 15:39:13.698	385,40	2025-07-30 15:40:39.342	350,51	2025-07-30 15:43:02.728	320,80	2025-07-30 15:44:37.458	279,00	2025-07-30 15:47:03.679
16	426,20	2025-07-30 15:36:47.756	411,80	2025-07-30 15:39:14.185	386,20	2025-07-30 15:40:39.859	350,51	2025-07-30 15:43:03.213	319,00	2025-07-30 15:44:37.960	279,30	2025-07-30 15:47:04.182
17	425,30	2025-07-30 15:36:48.260	411,80	2025-07-30 15:39:14.706	386,20	2025-07-30 15:40:40.361	349,21	2025-07-30 15:43:03.719	319,00	2025-07-30 15:44:38.448	279,30	2025-07-30 15:47:04.721
18	425,30	2025-07-30 15:36:48.763	409,00	2025-07-30 15:39:15.194	386,20	2025-07-30 15:40:40.851	349,21	2025-07-30 15:43:04.236	315,00	2025-07-30 15:44:38.952	284,10	2025-07-30 15:47:05.194
19	426,00	2025-07-30 15:36:49.268	409,00	2025-07-30 15:39:15.698	384,30	2025-07-30 15:40:41.356	348,61	2025-07-30 15:43:04.724	315,00	2025-07-30 15:44:39.452	284,10	2025-07-30 15:47:05.681
20	426,00	2025-07-30 15:36:49.753	407,30	2025-07-30 15:39:16.201	384,30	2025-07-30 15:40:41.844	348,61	2025-07-30 15:43:05.214	306,30	2025-07-30 15:44:39.974	287,80	2025-07-30 15:47:06.183
21	426,00	2025-07-30 15:36:50.277	407,30	2025-07-30 15:39:16.701	386,60	2025-07-30 15:40:42.346	342,41	2025-07-30 15:43:05.718	306,30	2025-07-30 15:44:40.443	287,80	2025-07-30 15:47:06.687
22	423,90	2025-07-30 15:36:50.763	408,80	2025-07-30 15:39:17.190	386,60	2025-07-30 15:40:42.850	342,41	2025-07-30 15:43:06.221	300,10	2025-07-30 15:44:40.948	285,10	2025-07-30 15:47:07.191
23	423,90	2025-07-30 15:36:51.268	408,80	2025-07-30 15:39:17.710	386,90	2025-07-30 15:40:43.354	336,31	2025-07-30 15:43:06.723	300,10	2025-07-30 15:44:41.452	285,10	2025-07-30 15:47:07.680
24	420,60	2025-07-30 15:36:51.769	409,20	2025-07-30 15:39:18.198	386,90	2025-07-30 15:40:43.841	336,31	2025-07-30 15:43:07.228	299,90	2025-07-30 15:44:41.956	282,70	2025-07-30 15:47:08.180
25	420,60	2025-07-30 15:36:52.260	409,20	2025-07-30 15:39:18.685	384,30	2025-07-30 15:40:44.364	336,31	2025-07-30 15:43:07.716	299,90	2025-07-30 15:44:42.464	282,70	2025-07-30 15:47:08.685
26	423,70	2025-07-30 15:36:52.761	407,80	2025-07-30 15:39:19.204	384,30	2025-07-30 15:40:44.851	339,21	2025-07-30 15:43:08.234	299,90	2025-07-30 15:44:42.948	279,90	2025-07-30 15:47:09.186
27	423,70	2025-07-30 15:36:53.282	407,80	2025-07-30 15:39:19.706	384,30	2025-07-30 15:40:45.352	339,21	2025-07-30 15:43:08.722	301,10	2025-07-30 15:44:43.452	279,90	2025-07-30 15:47:09.690
28	426,80	2025-07-30 15:36:53.752	409,10	2025-07-30 15:39:20.212	382,40	2025-07-30 15:40:45.840	344,01	2025-07-30 15:43:09.224	301,10	2025-07-30 15:44:43.956	273,70	2025-07-30 15:47:10.181
29	426,80	2025-07-30 15:36:54.291	409,10	2025-07-30 15:39:20.684	382,40	2025-07-30 15:40:46.346	344,01	2025-07-30 15:43:09.716	302,40	2025-07-30 15:44:44.459	273,70	2025-07-30 15:47:10.687
30	426,20	2025-07-30 15:36:54.760	412,20	2025-07-30 15:39:21.191	380,70	2025-07-30 15:40:46.847	344,01	2025-07-30 15:43:10.219	302,40	2025-07-30 15:44:44.949	269,90	2025-07-30 15:47:11.190
	426,89		408,95		381,01		343,08		315,14		281,61	

3 kg		3,5 kg		4 kg		4,5 kg		5 kg		5,5 kg		6 kg	
Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu	Putaran	Tanggal/Waktu
214,50	2025-07-30 15:48:39.516	202,70	2025-07-30 15:50:01.157	159,00	2025-07-30 15:51:33.032	101,60	2025-07-30 15:53:32.441	80,70	2025-07-31 10:33:45.188	16,74	2025-07-31 10:37:07.274	0	2025-07-30 15:36:40.264
224,30	2025-07-30 15:48:40.021	195,10	2025-07-30 15:50:01.661	159,00	2025-07-30 15:51:33.535	101,60	2025-07-30 15:53:32.948	80,70	2025-07-31 10:33:45.675	16,74	2025-07-31 10:37:07.761	0	2025-07-30 15:36:40.754
224,30	2025-07-30 15:48:40.525	195,10	2025-07-30 15:50:02.164	157,10	2025-07-30 15:51:34.055	105,10	2025-07-30 15:53:33.450	84,80	2025-07-31 10:33:46.195	27,71	2025-07-31 10:37:08.265	0	2025-07-30 15:36:41.255
234,00	2025-07-30 15:48:41.015	193,30	2025-07-30 15:50:02.649	157,10	2025-07-30 15:51:34.526	105,10	2025-07-30 15:53:33.936	84,80	2025-07-31 10:33:46.683	27,71	2025-07-31 10:37:08.767	0	2025-07-30 15:36:41.759
234,00	2025-07-30 15:48:41.515	193,30	2025-07-30 15:50:03.189	157,10	2025-07-30 15:51:35.046	105,10	2025-07-30 15:53:34.443	84,70	2025-07-31 10:33:47.171	27,71	2025-07-31 10:37:09.271	0	2025-07-30 15:36:42.263
243,20	2025-07-30 15:48:42.022	193,30	2025-07-30 15:50:03.657	151,80	2025-07-30 15:51:35.535	104,10	2025-07-30 15:53:34.948	84,70	2025-07-31 10:33:47.674	27,71	2025-07-31 10:37:09.776	0	2025-07-30 15:36:42.767
243,20	2025-07-30 15:48:42.540	193,50	2025-07-30 15:50:04.164	151,80	2025-07-30 15:51:36.040	104,10	2025-07-30 15:53:35.451	84,70	2025-07-31 10:33:48.179	40,51	2025-07-31 10:37:10.262	0	2025-07-30 15:36:43.254
243,20	2025-07-30 15:48:43.029	193,50	2025-07-30 15:50:04.651	149,80	2025-07-30 15:51:36.543	99,30	2025-07-30 15:53:35.939	79,35	2025-07-31 10:33:48.682	40,51	2025-07-31 10:37:10.765	0	2025-07-30 15:36:43.775
253,70	2025-07-30 15:48:43.515	196,80	2025-07-30 15:50:05.155	149,80	2025-07-30 15:51:37.031	99,30	2025-07-30 15:53:36.444	79,35	2025-07-31 10:33:49.185	40,51	2025-07-31 10:37:11.270	0	2025-07-30 15:36:44.264
253,70	2025-07-30 15:48:44.021	196,80	2025-07-30 15:50:05.656	154,40	2025-07-30 15:51:37.531	96,90	2025-07-30 15:53:36.947	79,35	2025-07-31 10:33:49.675	47,98	2025-07-31 10:37:11.774	0	2025-07-30 15:36:44.764
255,90	2025-07-30 15:48:44.522	200,70	2025-07-30 15:50:06.161	154,40	2025-07-30 15:51:38.036	96,90	2025-07-30 15:53:37.464	67,15	2025-07-31 10:33:50.177	47,98	2025-07-31 10:37:12.259	0	2025-07-30 15:36:45.268
255,90	2025-07-30 15:48:45.027	200,70	2025-07-30 15:50:06.650	154,40	2025-07-30 15:51:38.525	97,70	2025-07-30 15:53:37.954	67,15	2025-07-31 10:33:50.681	47,98	2025-07-31 10:37:12.766	0	2025-07-30 15:36:45.757
249,80	2025-07-30 15:48:45.513	200,70	2025-07-30 15:50:07.153	153,90	2025-07-30 15:51:39.029	97,70	2025-07-30 15:53:38.443	67,15	2025-07-31 10:33:51.187	53,81	2025-07-31 10:37:13.268	0	2025-07-30 15:36:46.258
249,80	2025-07-30 15:48:46.018	202,60	2025-07-30 15:50:07.655	153,90	2025-07-30 15:51:39.529	97,70	2025-07-30 15:53:38.945	59,31	2025-07-31 10:33:51.674	53,81	2025-07-31 10:37:13.773	0	2025-07-30 15:36:46.763
245,00	2025-07-30 15:48:46.520	202,60	2025-07-30 15:50:08.158	150,50	2025-07-30 15:51:40.032	100,60	2025-07-30 15:53:39.450	59,31	2025-07-31 10:33:52.178	53,81	2025-07-31 10:37:14.259	0	2025-07-30 15:36:47.252
245,00	2025-07-30 15:48:47.024	200,00	2025-07-30 15:50:08.663	150,50	2025-07-30 15:51:40.522	100,60	2025-07-30 15:53:39.937	59,31	2025-07-31 10:33:52.680	53,81	2025-07-31 10:37:14.778	0	2025-07-30 15:36:47.756
245,00	2025-07-30 15:48:47.512	200,00	2025-07-30 15:50:09.154	150,50	2025-07-30 15:51:41.027	100,60	2025-07-30 15:53:40.441	62,94	2025-07-31 10:33:53.184	51,50	2025-07-31 10:37:15.269	0	2025-07-30 15:36:48.260
246,60	2025-07-30 15:48:48.018	200,00	2025-07-30 15:50:09.654	151,60	2025-07-30 15:51:41.530	104,60	2025-07-30 15:53:40.945	62,94	2025-07-31 10:33:53.669	51,50	2025-07-31 10:37:15.773	0	2025-07-30 15:36:48.763
246,60	2025-07-30 15:48:48.522	194,60	2025-07-30 15:50:10.159	151,60	2025-07-30 15:51:42.035	104,60	2025-07-30 15:53:41.447	74,04	2025-07-31 10:33:54.174	41,29	2025-07-31 10:37:16.273	0	2025-07-30 15:36:49.268
250,70	2025-07-30 15:48:49.026	194,60	2025-07-30 15:50:10.660	152,40	2025-07-30 15:51:42.539	108,90	2025-07-30 15:53:41.950	74,04	2025-07-31 10:33:54.678	41,29	2025-07-31 10:37:16.764	0	2025-07-30 15:36:49.753
250,70	2025-07-30 15:48:49.527	195,30	2025-07-30 15:50:11.150	152,40	2025-07-30 15:51:43.027	108,90	2025-07-30 15:53:42.453	74,04	2025-07-31 10:33:55.181	41,29	2025-07-31 10:37:17.265	0	2025-07-30 15:36:50.277
251,50	2025-07-30 15:48:50.014	195,30	2025-07-30 15:50:11.653	150,80	2025-07-30 15:51:43.546	108,90	2025-07-30 15:53:42.941	80,30	2025-07-31 10:33:55.685	43,90	2025-07-31 10:37:17.772	0	2025-07-30 15:36:50.763
251,50	2025-07-30 15:48:50.518	203,70	2025-07-30 15:50:12.157	150,80	2025-07-30 15:51:44.032	113,50	2025-07-30 15:53:43.445	80,30	2025-07-31 10:33:56.174	43,90	2025-07-31 10:37:18.272	0	2025-07-30 15:36:51.268
250,90	2025-07-30 15:48:51.025	203,70	2025-07-30 15:50:12.661	150,80	2025-07-30 15:51:44.536	113,50	2025-07-30 15:53:43.948	79,68	2025-07-31 10:33:56.676	43,90	2025-07-31 10:37:18.762	0	2025-07-30 15:36:51.769
250,90	2025-07-30 15:48:51.525	203,70	2025-07-30 15:50:13.163	151,10	2025-07-30 15:51:45.023	113,50	2025-07-30 15:53:44.439	79,68	2025-07-31 10:33:57.182	43,90	2025-07-31 10:37:19.264	0	2025-07-30 15:36:52.260
249,40	2025-07-30 15:48:52.013	214,40	2025-07-30 15:50:13.651	151,10	2025-07-30 15:51:45.527	118,00	2025-07-30 15:53:44.942	79,64	2025-07-31 10:33:57.684	52,60	2025-07-31 10:37:19.770	0	2025-07-30 15:36:52.761
249,40	2025-07-30 15:48:52.518	214,40	2025-07-30 15:50:14.155	151,50	2025-07-30 15:51:46.049	118,00	2025-07-30 15:53:45.446	79,64	2025-07-31 10:33:58.172	52,60	2025-07-31 10:37:20.270	0	2025-07-30 15:36:53.282
249,40	2025-07-30 15:48:53.023	219,40	2025-07-30 15:50:14.661	151,50	2025-07-30 15:51:46.536	121,50	2025-07-30 15:53:45.947	79,64	2025-07-31 10:33:58.676	52,60	2025-07-31 10:37:20.761	0	2025-07-30 15:36:53.752
244,50	2025-07-30 15:48:53.541	219,40	2025-07-30 15:50:15.165	149,90	2025-07-30 15:51:47.036	121,50	2025-07-30 15:53:46.437	79,91	2025-07-31 10:33:59.179	54,86	2025-07-31 10:37:21.265	0	2025-07-30 15:36:54.291
244,50	2025-07-30 15:48:54.015	220,40	2025-07-30 15:50:15.655	149,90	2025-07-30 15:51:47.529	121,50	2025-07-30 15:53:46.939	79,91	2025-07-31 10:33:59.685	54,86	2025-07-31 10:37:21.768	0	2025-07-30 15:36:54.760
245,04		201,32		152,68		106,36		75,64		43,17		0	



a. Tanpa *Dimple*



b. jumlah *Dimple* 320



a. jumlah *Dimple* 352



b. jumlah *Dimple* 384



c. jumlah *Dimple* 416



d. jumlah *Dimple* 448



e. jumlah *Dimple* 480

Gambar L. 26 Rotor Model Savonius Dua Sudu Variasi jumlah *Dimple* 320, 352, 384, 416, 448, Dan 480



Gambar L. 28 *Cylindrical Guide Vane*



Gambar L. 30 *Blower*



Gambar L. 34 Turbin Angin Savonius Dua Sudu Variasi jumlah *Dimple*

MATRIKS JURNAL RUJUKAN

No	Authors /Date	Publisher	Judul	Tujuan	Metode	Hasil
1.	P. Sampelawang dkk., 2024	Eastern-European Journal of Enterprise Technologies ISSN 1729-9774 (2024)	Enhancing Savonius Rotor Model With Additional Grooves On Hydrokinetic Turbine Performance	Tujuan penelitian ini adalah untuk meningkatkan kinerja rotor Savonius dengan meningkatkan perbedaan gaya hambat yang bekerja antara bilah maju dan bilah kembali..	Beberapa percobaan dilakukan di terowongan angin untuk mendapatkan nilai parameter gaya hambat (FD) dan koefisien hambat (CD) untuk memvalidasi dan menjamin relevansi hasil kinerja model. Sebagai bagian dari percobaan ini, turbin mengalami serangkaian kecepatan konstan bertahap mulai dari 9 m/s hingga 9 m/s sambil mengubah sudut putaran bilahnya pada 0, 15, 90, dan 45 derajat.	1. Hasil pengujian mengungkapkan bahwa penggabungan alur menyebabkan peningkatan yang nyata dalam efisiensi (FD) dan koefisien hambatan (CD). 2. Bilah beralur menunjukkan efisiensi maksimum 90,97% dan koefisien hambatan maksimum 2,71. 9.Khususnya, bilah dengan lebar alur 12,5 mm muncul sebagai model optimal, menunjukkan puncak efisiensi 95,66% dan koefisien hambatan 9,08. Ini menunjukkan peningkatan substansial dalam efisiensi sebesar 4,69% dan kenaikan yang sesuai dalam koefisien hambatan sebesar 0,97 untuk bilah beralur. 3. Alur pada bilah beralur meningkatkan gesekan, sehingga meningkatkan kinerja. Bilah rotor beralur meningkatkan kinerja turbin secara signifikan

2.	Nofrianto Pasae, dkk., 2025	Journal Of Social Science Research Volume 5 Nomor 1 Tahun 2025 Page 5499-5509 E-ISSN 2807-4298 and P-ISSN 2807-4246	Unjuk Kerja Turbin Angin Savonius Tiga Sudu Model Twist dengan Variasi Sudut Puntir Sudu	Berdasarkan latar belakang tersebut maka dari itu penelitian ini dilakukan untuk mengetahui pengaruh sudut puntir pada sudu terhadap unjuk kerja turbin angin Savonius tiga sudu model twist.	Metode yang dilakukan dalam penelitian ini adalah metode eksperimen, dengan melakukan pengujian terhadap turbin angin Savonius tipe twist. Dalam penelitian ini, penulis melakukan pengujian dengan memvariasikan sudut puntir sudu yaitu 120°, 150°, dan 180°, untuk menghasilkan daya, torsi dan efisiensi.	1. Berdasarkan data hasil pengujian dan perhitungan pada turbin angin Savonius tiga sudu model twist dengan variasi sudut puntir 120°; 150°; dan 180° 2. Torsi maksimum yang dihasilkan adalah sebesar 2,94 Nm terjadi pada sudut puntir 180° dengan beban 15 kg dan putaran 0 rpm, 3. Daya maksimum yang dihasilkan adalah sebesar 8,19 Watt terjadi pada sudut puntir 180o dengan beban 7 kg dan putaran 57,0 rpm, dan Efisiensi maksimum yang dihasilkan adalah sebesar 15,98% terjadi pada sudut puntir 180o dengan beban 7 kg dan putaran 57,0 rpm.
9.	Fakhruddin Ma'ruf Hidayatulloh, dkk., 2022	Jurnal Teknologi Penerbangan, ISSN : 2548 – 8090 e – ISSN : 2548 – 8104 VOL. 6	Studi Numerik Penambahan Dimple Pada Turbin Angin Savonius Untuk Meningkatkan Performa Aerodinamika	untuk menurunkan pressure drag dilakukan dengan penambahan dimple pada permukaan returning blade	Penelitian ini dilaksanakan menggunakan metode simulasi numerik dua dimensi. ANSYS 18.2 digunakan untuk menyelesaikan	1. Returning blade turbin angin Savonius memberikan torsi negatif akibat gaya pressure drag yang timbul dari angin berlawanan. Besarnya pressure drag tersebut menyebabkan performa turbin relatif masih rendah. Dengan demikian, perhitungan numerik

					perhitungan numerik	penambahan dimple pada
					dengan turbulent model k- ϵ realizable dengan enhanced wall treatment. Proses simulasi dibagi atas tiga tahap, yaitu Pre-Processing, Processing, dan Post-Processing.	returning blade surface diperoleh kesimpulan sebagai berikut. Performa turbin Savonius belum dapat meningkat dan mengalami penurunan performa hingga 19% dibandingkan dengan turbin Savonius tanpa adanya penambahan dimple.
4.	Yoga Arob Wicaksono., 2020	Jurnal Pendidikan Teknik Mesin Undiksha p- ISSN: 2614-1876, e-ISSN: 2614-1884	Pengaruh Desain Guide Vane Terhadap Performa dan Pola Aliran di Sekitar Turbin Angin Savonius	Tujuan dari penelitian ini adalah untuk mempelajari pengaruh guide vane terhadap performa dan karakteristik pola aliran sekitar turbin angin Savonius	Untuk menentukan operasi simulasi turbin turbin dan guide vane, maka diperlukan keterlibatan domain tetap dan rotasi. domain fluida 2D terdiri dari dua komponen. Pertama, domain luar persegi panjang tetap dengan lubang bundar. Kedua, adalah domain lingkaran dalam diidentifikasi adalah	1. Hasil simulasi, turbin angin Savonius dengan guide vane memiliki efek pada performa karakteristik aliran. Dibandingkan dengan turbin angin Savonius tanpa guide vane, sirkulasi aliran fluida pada turbin terbukti meningkat. 2. Guide vane memiliki efek positif untuk meningkatkan performa turbin angin Savonius. 3. Namun, kinerja Savonius turbin dengan guide vane bergantung pada arah datang angin. 4. Performa turbin angin Savonius dengan guide vane paling tinggi

					domain turbin untuk Savonius turbin terbuka dan Savonius dengan domain guide	ketika arah datang angin 90o. Dibandingkan dengan Savonius tanpa guide vane, Cp meningkat
					vane. Geometri dimodelkan dalam software SolidWorks dan diimpor ke ANSYS Design Modeller 15.0. Mesh dihasilkan dengan ANSYS- ICEM CFD 15. Domain komputasi untuk turbin memiliki dimensi 10 m x 5 m. Turbin Savonius dan guide vane ditempatkan 2,5 m dari inlet.	sebesar 22,2%.
5.	Dudung Hermawan dkk., 2022	Metrik Serial Humaniora Dan Sains (E): ISSN 2774-2977. Volume: 9. Nomor: 2	Perencanaan Turbin Angin Sovanius S Untuk Penerangan Jalan	Tujuan penelitian: 1. pertama merancang turbin yang mampu bekerja pada kecepatan angin rendah dengan kondisi angin	Perancangan mesin turbin angin, dilakukan beberapa tahap yang sangat penting, sehingga dalam merancang tidak mengalami kesalahan yang fatal, tahap-tahap	1. Turbin angin ini secara teori dapat menghasilkan daya mekanik 10,26Watt pada kecepatan angin 5,9 m/s. 2. Turbin angin sovanius dapat mengisi aki yang dihasilkan oleh generator ke baterai pada V Out generator 18,6 V daya ini cukup

		Tahun 2022		yang tidak stabil. 2. menambahkan beban berupa lampu pada tahap akhir proses	dalam perancangan antara lain; Menentukan kebutuhan, Pemilihan mekanisme,. Perhitungan beban	untuk mengisi baterai 12V 3. Putaran minimum dihasilkan turbin angin sovanius dua tingkat dengan putaran sudu 81 rpm dan daya yang di bangkitkan adalah
				pengujian turbin.	mekanis, Pemilihan bahan, Menentukan ukuran, Modifikasi, Pembuatan gambar kerja dan proses manufaktur dan perakitan	10,2V pada kecepatan angin 9,2m/s.
6.	Andi Mulkan, Nazaruddin dkk., 2022	Jurnal Ilmiah Teknik UNIDA Vol. 9 No. 1 Juni 2022 e-ISSN 2721-6861 JITU	Analisis Pemanfaatan Energi Angin Sebagai Sumber Pembangkit Energi Listrik	Tujuan dari studi penelitian ini adalah untuk mengetahui potensi energi angin di Kota Banda Aceh serta merencanakan spesifikasi turbin angin yang sesuai berdasarkan hasil perhitungan	Penelitian ini dilakukan mulai Bulan April 2015 sampai dengan Bulan Mei 2015 dengan lokasi penelitian adalah di Kota Banda Aceh.	Hasil perhitungan didapat untuk diameter rotor 8 meter, daya output yang paling besar terlihat pada Bulan Agustus yaitu 18,71 kW dan yang terendah pada Bulan Februari yaitu 0,95 kW. Daya output rata-rata adalah 7,18 kW
7.	Salim, Lutfi Laili Sari dkk., 2020	Jurusan Teknik Mesin, (JPE), Vol. 24, No. 2	Analisis Performa Turbin Angin Savonius Tipe U dengan Memvariasikan Jumlah Sudu	Analisis Performa Turbin Angin Savonius Tipe U dengan Memvariasikan Jumlah Sudu Turbin	Dalam penelitian ini, pengujian. Pembuatan Turbin Angin Turbin angin didesain dengan variasi 2, 9, dan 4 buah	1. Semakin kecil jumlah sudu maka daya output semakin besar. Dimana turbin sudu 2 pada kecepatan angin 4,6 m/s daya output nya sebesar 28,97 watt dan pada kecepatan 5 m/s daya output-

			Turbin		sudu berbahan fiber yang diletakkan diatas rangka Adapun sudu turbin angin dibuat dari bahan fiber dengan membentuk U atau	nya sebesar 98,88 watt. Semakin kecil jumlah sudu maka koefisien daya semakin besar. Nilai koefisien terbesar yang dihasilkan berdasarkan jumlah
					ditekuk 180°. Pengambilan data terdiri dari pengukuran kecepatan angin, putaran poros, tegangan generator dan arus generator.:Pengukuran kecepatan angin (v) menggunakan anemometer. 1. Pengukuran putaran poros (n) menggunakan takometer dan menghitung nilai torsi (T) untuk mencari nilai daya output turbin (Pout).	sudu, yaitu turbin 2 sudu = 0,295 ; 9 sudu = 0,127 dan 4 sudu = 0,090 Semakin besar jumlah sudu maka semakin besar pula daya output generator. Daya output generator terbesar yang dihasilkan berdasarkan jumlah sudu, yaitu turbin 2 sudu = 19,56 W ; 9 sudu = 17,99 W dan 4 sudu = 94,9 W. 2. Semakin, Efisiensi terbesar pada generator, dihasilkan pada turbin 4 sudu yaitu 12,02%. disusul turbin 2 sudu 10,08% dan turbin 9 sudu 8.90%

8.	Immanuel O. Silla dkk., 2022	Program Studi Teknik Mesin, Fakultas Sains dan	Kinerja Turbin Savonius Sebagai Sumber Energi alternatif	1. Mengetahui kecepatan angin rata-rata yang terukur di desa oenali 2. Analisa karakteristik	1. Pengujian eksperimen menggunakan turbin Savonius 2 sudu. Mengukur kecepatan dilakukan tiap 1 jam mulai dari pukul 08.00-16.00 WITA	Hasil perhitungan dan analisa diperoleh (1). Kecepatan rata-rata angin yang terukur di desa Oenali adalah 8.26 m/s mampu memutar turbin Savonius dengan putaran rata-rata sebesar 654 rpm sehingga
		Teknik, Universitas Nusa Cendana Jalan Adisucipto, Penfui-Kupang NTT		model uji berupa η , τ , P_{out} dan TSR	2. Dimensi alat uji turbin terbuat dari plat aluminium dengan ukuran rotor 1m x 1m dengan menggunakan <i>pulley</i> tubin berdiameter sebesar 16 inci yang terkopel langsung dengan <i>pulley</i> generator berdiameter sebesar 4 inci.	menghasilkan Torsi Turbin (T_t) sebesar 0.99 N.m. (2). Koefisien Daya (CP) sebesar 2.8 (%) dengan tip speed ratio sebesar 0.6 (λ). (9). Koefisien Torsi (CT) diperoleh sebesar 8.7 (%), dan Tip Speed Ratio yang diperoleh sebesar 0.1 (λ).

