

## LAMPIRAN

Lampiran 1 Tabel histori kerusakan Automatic Nail machine

No	Tanggal	Mulai (jam)	Selesai (jam)	Total jumlah jam setiap perbaikan (jam)
1.	02 Februari 2021	08 : 23	10 : 15	112 menit
2.	11 Mei 2021	13 : 25	16 : 03	158
3.	10 Juni 2021	12 : 50	14 : 36	106
4.	12 Agustus 2021	09 : 15	11 : 22	127
5.	16 Agustus 2021	15 : 02	17 : 20	138
6.	15 September 2021	09 : 12	11 : 11	119
7.	28 September 2021	15 : 56	18 : 12	136
8.	06 Oktober 2021	12 : 33	14 : 17	104
9.	03 November 2021	08 : 22	10 : 29	126
10.	20 November 2021	11 ; 45	13 : 36	111
11.	27 November 2021	13 : 19	15 : 43	144
12.	09 Desember 2021	15 : 28	17 : 10	102
13.	15 Maret 2022	16 : 22	19 : 06	164
14.	21 Maret 2022	13 : 36	15 : 42	126
15.	04 April 2022	08 : 53	12 : 10	197
16.	25 April 2022	09 : 40	11 : 19	99
17.	19 Mei 2022	12 : 10	14 : 13	123
18.	12 Juli 2022	11 : 28	16 : 52	324
19.	13 Juli 2022	09 : 35	12 : 32	177



20.	2 September 2022	18 : 10	21 : 14	304
21.	12 September 2022	16 : 52	19 : 46	174
22.	21 September 2022	09 : 40	11 : 54	134
23.	17 Oktober 2022	10 : 20	13 : 16	176
24.	20 November 2022	08 : 58	11 : 28	150
25.	28 November 2022	13 : 12	15 : 26	134
26.	21 Desember 2022	10 : 33	13 : 11	158
27.	19 Februari 2023	09 : 20	12 : 08	168
28.	21 Februari 2023	15 : 16	17 : 27	131
29.	2 Maret 2023	16 : 37	18 : 10	93
30.	12 Maret 2023	08 : 12	11 : 19	187
31.	14 Maret 2023	19 : 28	22 : 02	154
32.	16 Maret 2023	18 : 09	20 : 14	125
33.	15 April 2023	15 : 35	19 : 22	227
34.	5 Mei 2023	09 : 56	11 : 59	123



No.	Nama Komponen	Biaya Pergantian Komponen (Rp)
1.	Wire cutting	550.000
2.	Wire feeder	1.120.000
3.	Hammer	450.000
4.	Crank shaft	1.850.000
5.	Wire straightener	660.000
6.	Bosh klep	500.000
7.	Electrical motor	2.100.000


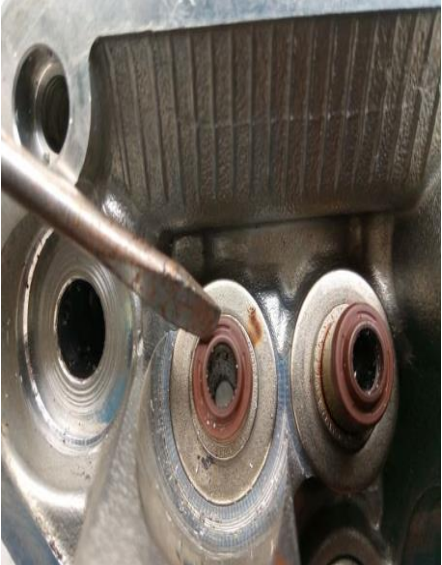
Lampiran 2 Gambar Observasi CV. Tiga Bhakti



Lampiran 3. Gambar Mesin dan Komponen

No	Gambar komponen	Jenis komponen
1.		Pada gambar 1 disamping merupakan salah satu komponen kritis dari <i>Automatic Nail Machine</i> yang disebut <b>Wire cutting</b>
2.		Pada gambar 2 disamping merupakan salah satu komponen kritis dari <i>Automatic Nail Machine</i> yang disebut <b>Hammer</b>

3.	 A close-up photograph of a crankshaft component from an automatic nail machine. The component is made of dark metal and features a central shaft with a nut and washer. It is mounted on a vertical support structure. In the background, a red handle and a chain are visible.	<p>Pada gambar 3 disamping merupakan salah satu komponen kritis dari <i>Automatic Nail Machine</i> yang disebut <i>Crank shaft</i>.</p>
4.	 A close-up photograph of a wire straightener component from an automatic nail machine. The component is painted blue and consists of a series of rollers and guides that process a wire. The wire is visible as it passes through the rollers.	<p>Pada gambar 4 disamping merupakan salah satu komponen kritis dari <i>Automatic Nail Machine</i> yang disebut <i>Wire straightener</i>.</p>

5.	 A close-up photograph of a blue wire feeder component. The component is made of metal and blue-painted steel. It features a central cylindrical part with a red-colored section. A blue cable is visible on the left side, and a blue metal bracket is attached to the right side. The background shows a workshop floor with a cardboard box and another blue component.	<p>Pada gambar 4 disamping merupakan salah satu komponen kritis dari <i>Automatic Nail Machine</i> yang disebut <i>Wire feeder</i>.</p>
6.	 A close-up photograph of a Bosh klep component. The component is made of metal and has a complex, multi-cylindrical shape. It features several circular openings and a central cylindrical part. A metal rod is visible on the left side, pointing towards the central part. The background is dark and indistinct.	<p>Pada gambar 6 disamping merupakan salah satu komponen kritis dari <i>Automatic Nail Machine</i> yang disebut <i>Bosh klep</i>.</p>



Lampiran 4 Tabel Z Distribusi Normal

Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$
-4	0.00003	0.99997	-3.51	0.00022	0.99978	-3.02	0.00126	0.99874
-3.99	0.00003	0.99997	-3.5	0.00023	0.99977	-3.01	0.00131	0.99869
-3.98	0.00003	0.99997	-3.49	0.00024	0.99976	-3	0.00131	0.99869
-3.97	0.00004	0.99996	-3.48	0.00025	0.99975	-2.99	0.00139	0.99861
-3.96	0.00004	0.99996	-3.47	0.00026	0.99974	-2.98	0.00144	0.99856
-3.95	0.00004	0.99996	-3.46	0.00027	0.99973	-2.97	0.00149	0.99851
-3.94	0.00004	0.99996	-3.45	0.00028	0.99972	-2.96	0.00154	0.99846
-3.93	0.00004	0.99996	-3.44	0.00029	0.99971	-2.95	0.00159	0.99841
-3.92	0.00004	0.99996	-3.43	0.0003	0.9997	-2.94	0.00164	0.99836
-3.91	0.00005	0.99995	-3.42	0.00031	0.99969	-2.93	0.00169	0.99831
-3.9	0.00005	0.99995	-3.41	0.00032	0.99968	-2.92	0.00175	0.99825
-3.89	0.00005	0.99995	-3.4	0.00034	0.99966	-2.91	0.00181	0.99819
-3.88	0.00005	0.99995	-3.39	0.00035	0.99965	-2.9	0.00187	0.99813
-3.87	0.00005	0.99995	-3.38	0.00036	0.99964	-2.89	0.00193	0.99807
-3.86	0.00006	0.99994	-3.37	0.00038	0.99962	-2.88	0.00199	0.99801
-3.85	0.00006	0.99994	-3.36	0.00039	0.99961	-2.87	0.00205	0.99795
-3.84	0.00006	0.99994	-3.35	0.0004	0.9996	-2.86	0.00212	0.99788
-3.83	0.00006	0.99994	-3.34	0.00042	0.99958	-2.85	0.00219	0.99781
-3.82	0.00007	0.99993	-3.33	0.00043	0.99957	-2.84	0.00226	0.99774
-3.81	0.00007	0.99993	-3.32	0.00045	0.99955	-2.83	0.00233	0.99767
-3.8	0.00007	0.99993	-3.31	0.00047	0.99953	-2.82	0.0024	0.9976
-3.79	0.00008	0.99992	-3.3	0.00048	0.99952	-2.81	0.00248	0.99752
-3.78	0.00008	0.99992	-3.29	0.0005	0.9995	-2.8	0.00255	0.99745
-3.77	0.00008	0.99992	-3.28	0.00052	0.99948	-2.79	0.00264	0.99736
-3.76	0.00008	0.99992	-3.27	0.00054	0.99946	-2.78	0.00272	0.99728
-3.75	0.00009	0.99991	-3.26	0.00056	0.99944	-2.77	0.0028	0.9972
-3.74	0.00009	0.99991	-3.25	0.00058	0.99942	-2.76	0.00289	0.99711
-3.73	0.00009	0.99991	-3.24	0.0006	0.9994	-2.75	0.00298	0.99702
-3.72	0.0001	0.9999	-3.23	0.00062	0.99938	-2.74	0.00307	0.99693
-3.71	0.0001	0.9999	-3.22	0.00064	0.99936	-2.73	0.00317	0.99683
-3.7	0.00011	0.99989	-3.21	0.00066	0.99934	-2.72	0.00326	0.99674
-3.69	0.00011	0.99989	-3.2	0.00069	0.99931	-2.71	0.00336	0.99664
-3.68	0.00012	0.99988	-3.19	0.00071	0.99929	-2.7	0.00347	0.99653
-3.67	0.00012	0.99988	-3.18	0.00074	0.99926	-2.69	0.00357	0.99643
-3.66	0.00013	0.99987	-3.17	0.00076	0.99924	-2.68	0.00368	0.99632
-3.65	0.00013	0.99987	-3.16	0.00079	0.99921	-2.67	0.00379	0.99621
-3.64	0.00014	0.99986	-3.15	0.00082	0.99918	-2.66	0.00391	0.99609
-3.63	0.00014	0.99986	-3.14	0.00084	0.99916	-2.65	0.00402	0.99598
-3.62	0.00015	0.99985	-3.13	0.00087	0.99913	-2.64	0.00415	0.99585
-3.61	0.00015	0.99985	-3.12	0.0009	0.9991	-2.63	0.00427	0.99573
-3.6	0.00016	0.99984	-3.11	0.00094	0.99906	-2.62	0.0044	0.9956
-3.59	0.00016	0.99984	-3.1	0.00097	0.99903	-2.61	0.00453	0.99547
-3.58	0.00017	0.99983	-3.09	0.001	0.999	-2.6	0.00466	0.99534
-3.57	0.00018	0.99982	-3.08	0.00103	0.99897	-2.59	0.0048	0.9952
-3.56	0.00019	0.99981	-3.07	0.00107	0.99893	-2.58	0.00494	0.99506
-3.55	0.00019	0.99981	-3.06	0.00111	0.99889	-2.57	0.00508	0.99492
-3.54	0.0002	0.9998	-3.05	0.00114	0.99886	-2.56	0.00523	0.99477



-3.53	0.00021	0.99979	-3.04	0.00118	0.99882	-2.55	0.00539	0.99461
-3.52	0.00022	0.99978	-3.03	0.00122	0.99878	-2.54	0.00554	0.99446

Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$
-2.53	0.0057	0.9943	-2.03	0.02118	0.97882	-1.53	0.06301	0.93699
-2.52	0.00587	0.99413	-2.02	0.02169	0.97831	-1.52	0.06426	0.93574
-2.51	0.00604	0.99396	-2.01	0.02222	0.97778	-1.51	0.06552	0.93448
-2.5	0.00621	0.99379	-2	0.02275	0.97725	-1.5	0.06681	0.93319
-2.49	0.00639	0.99361	-1.99	0.0233	0.9767	-1.49	0.06811	0.93189
-2.48	0.00657	0.99343	-1.98	0.02385	0.97615	-1.48	0.06944	0.93056
-2.47	0.00676	0.99324	-1.97	0.02442	0.97558	-1.47	0.07078	0.92922
-2.46	0.00695	0.99305	-1.96	0.025	0.975	-1.46	0.07215	0.92785
-2.45	0.00714	0.99286	-1.95	0.02559	0.97441	-1.45	0.07353	0.92647
-2.44	0.00734	0.99266	-1.94	0.02619	0.97381	-1.44	0.07493	0.92507
-2.43	0.00755	0.99245	-1.93	0.0268	0.9732	-1.43	0.07636	0.92364
-2.42	0.00776	0.99224	-1.92	0.02743	0.97257	-1.42	0.0778	0.9222
-2.41	0.00798	0.99202	-1.91	0.02807	0.97193	-1.41	0.07927	0.92073
-2.4	0.0082	0.9918	-1.9	0.02872	0.97128	-1.4	0.08076	0.91924
-2.39	0.00842	0.99158	-1.89	0.02938	0.97062	-1.39	0.08226	0.91774
-2.38	0.00866	0.99134	-1.88	0.03005	0.96995	-1.38	0.08379	0.91621
-2.37	0.00889	0.99111	-1.87	0.03074	0.96926	-1.37	0.08534	0.91466
-2.36	0.00914	0.99086	-1.86	0.03144	0.96856	-1.36	0.08692	0.91308
-2.35	0.00939	0.99061	-1.85	0.03216	0.96784	-1.35	0.08851	0.91149
-2.34	0.00964	0.99036	-1.84	0.03288	0.96712	-1.34	0.09012	0.90988
-2.33	0.0099	0.9901	-1.83	0.03362	0.96638	-1.33	0.09176	0.90824
-2.32	0.01017	0.98983	-1.82	0.03438	0.96562	-1.32	0.09342	0.90658
-2.31	0.01044	0.98956	-1.81	0.03515	0.96485	-1.31	0.0951	0.9049
-2.3	0.01072	0.98928	-1.8	0.03593	0.96407	-1.3	0.0968	0.9032
-2.29	0.01101	0.98899	-1.79	0.03673	0.96327	-1.29	0.09853	0.90147
-2.28	0.0113	0.9887	-1.78	0.03754	0.96246	-1.28	0.10027	0.89973
-2.27	0.0116	0.9884	-1.77	0.03836	0.96164	-1.27	0.10204	0.89796
-2.26	0.01191	0.98809	-1.76	0.0392	0.9608	-1.26	0.10383	0.89617
-2.25	0.01222	0.98778	-1.75	0.04006	0.95994	-1.25	0.10565	0.89435
-2.24	0.01255	0.98745	-1.74	0.04093	0.95907	-1.24	0.10749	0.89251
-2.23	0.01287	0.98713	-1.73	0.04182	0.95818	-1.23	0.10935	0.89065
-2.22	0.01321	0.98679	-1.72	0.04272	0.95728	-1.22	0.11123	0.88877
-2.21	0.01355	0.98645	-1.71	0.04363	0.95637	-1.21	0.11314	0.88686
-2.2	0.0139	0.9861	-1.7	0.04457	0.95543	-1.2	0.11507	0.88493
-2.19	0.01426	0.98574	-1.69	0.04551	0.95449	-1.19	0.11702	0.88298
-2.18	0.01463	0.98537	-1.68	0.04648	0.95352	-1.18	0.119	0.881
-2.17	0.015	0.985	-1.67	0.04746	0.95254	-1.17	0.121	0.879
-2.16	0.01539	0.98461	-1.66	0.04846	0.95154	-1.16	0.12302	0.87698
-2.15	0.01578	0.98422	-1.65	0.04947	0.95053	-1.15	0.12507	0.87493
-2.14	0.01618	0.98382	-1.64	0.0505	0.9495	-1.14	0.12714	0.87286
-2.13	0.01659	0.98341	-1.63	0.05155	0.94845	-1.13	0.12924	0.87076
-2.12	0.017	0.983	-1.62	0.05262	0.94738	-1.12	0.13136	0.86864
-2.11	0.01743	0.98257	-1.61	0.0537	0.9463	-1.11	0.1335	0.8665
-2.1	0.01786	0.98214	-1.6	0.0548	0.9452	-1.1	0.13567	0.86433
-2.09	0.01831	0.98169	-1.59	0.05592	0.94408	-1.09	0.13786	0.86214

-2.08	0.01876	0.98124	-1.58	0.05705	0.94295	-1.08	0.14007	0.85993
-2.07	0.01923	0.98077	-1.57	0.05821	0.94179	-1.07	0.14231	0.85769
-2.06	0.0197	0.9803	-1.56	0.05938	0.94062	-1.06	0.14457	0.85543
-2.05	0.02018	0.97982	-1.55	0.06057	0.93943	-1.05	0.14686	0.85314
-2.04	0.06178	0.93822	-1.54	0.06178	0.93822	-1.04	0.14917	0.85083

Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$
-1.03	0.151505	0.848495	-0.53	0.2980559	0.7019441	-0.03	0.48803	0.51197
-1.02	0.1538642	0.8461358	-0.52	0.3015318	0.6984682	-0.02	0.49202	0.50798
-1.01	0.1562477	0.8437523	-0.51	0.3050257	0.6949743	-0.01	0.49601	0.50399
-1	0.1586553	0.8413447	-0.5	0.3085375	0.6914625	0	0.5	0.5
-0.99	0.1610871	0.8389129	-0.49	0.3120669	0.6879331	0.01	0.50399	0.49601
-0.98	0.1635431	0.8364569	-0.48	0.3156137	0.6843863	0.02	0.50798	0.49202
-0.97	0.1660232	0.8339768	-0.47	0.3191775	0.6808225	0.03	0.51197	0.48803
-0.96	0.1685276	0.8314724	-0.46	0.3227581	0.6772419	0.04	0.5159535	0.4840465
-0.95	0.1710561	0.8289439	-0.45	0.3263552	0.6736448	0.05	0.5199389	0.4800611
-0.94	0.1736088	0.8263912	-0.44	0.3299686	0.6700314	0.06	0.5239223	0.4760777
-0.93	0.1761855	0.8238145	-0.43	0.3335979	0.6664021	0.07	0.5279032	0.4720968
-0.92	0.1787864	0.8212136	-0.42	0.3372428	0.6627572	0.08	0.5318814	0.4681186
-0.91	0.1814112	0.8185888	-0.41	0.340903	0.659097	0.09	0.5358565	0.4641435
-0.9	0.1840601	0.8159399	-0.4	0.3445783	0.6554217	0.1	0.5398279	0.4601721
-0.89	0.1867329	0.8132671	-0.39	0.3482683	0.6517317	0.11	0.5437954	0.4562046
-0.88	0.1894296	0.8105704	-0.38	0.3519728	0.6480272	0.12	0.5477585	0.4522415
-0.87	0.1921502	0.8078498	-0.37	0.3556913	0.6443087	0.13	0.5517168	0.4482832
-0.86	0.1948945	0.8051055	-0.36	0.3594236	0.6405764	0.14	0.55567	0.4443
-0.85	0.1976625	0.8023375	-0.35	0.3631694	0.6368306	0.15	0.5596177	0.4403823
-0.84	0.2004541	0.7995459	-0.34	0.3669283	0.6330717	0.16	0.5635595	0.4364405
-0.83	0.2032693	0.7967307	-0.33	0.3707	0.6293	0.17	0.5674949	0.4325051
-0.82	0.206108	0.793892	-0.32	0.3744842	0.6255158	0.18	0.5714237	0.4285763
-0.81	0.20897	0.79103	-0.31	0.3782805	0.6217195	0.19	0.5753454	0.4246546
-0.8	0.2118553	0.7881447	-0.3	0.3820886	0.6179114	0.2	0.5792597	0.4207403
-0.79	0.2147638	0.7852362	-0.29	0.3859082	0.6140918	0.21	0.5831661	0.4168339
-0.78	0.2176954	0.7823046	-0.28	0.3897388	0.6102612	0.22	0.5870644	0.4129356
-0.77	0.2206499	0.7793501	-0.27	0.3935802	0.6064198	0.23	0.5909541	0.4090459
-0.76	0.2236272	0.7763728	-0.26	0.3974319	0.6025681	0.24	0.5948348	0.4051652
-0.75	0.2266273	0.7733727	-0.25	0.4012937	0.5987063	0.25	0.5987063	0.4012937
-0.74	0.2296499	0.7703501	-0.24	0.4051652	0.5948348	0.26	0.6025681	0.3974319
-0.73	0.232695	0.767305	-0.23	0.4090459	0.5909541	0.27	0.6064198	0.3935802
-0.72	0.2357624	0.7642376	-0.22	0.4129356	0.5870644	0.28	0.6102612	0.3897388
-0.71	0.238852	0.761148	-0.21	0.4168339	0.5831661	0.29	0.6140918	0.3859082
-0.7	0.2419636	0.7580364	-0.2	0.4207403	0.5792597	0.3	0.6179114	0.3820886
-0.69	0.245097	0.754903	-0.19	0.4246546	0.5753454	0.31	0.6217195	0.3782805
-0.68	0.2482522	0.7517478	-0.18	0.4285763	0.5714237	0.32	0.6255158	0.3744842
-0.67	0.2514288	0.7485712	-0.17	0.4325051	0.5674949	0.33	0.6293	0.3707
-0.66	0.2546268	0.7453732	-0.16	0.4364405	0.5635595	0.34	0.6330717	0.3669283
-0.65	0.257846	0.742154	-0.15	0.4403823	0.5596177	0.35	0.6368306	0.3631694
-0.64	0.2610862	0.7389138	-0.14	0.44433	0.55567	0.36	0.6405764	0.3594236
-0.63	0.2643472	0.7356528	-0.13	0.4482832	0.5517168	0.37	0.6443087	0.3556913
-0.62	0.2676288	0.7323712	-0.12	0.4522415	0.5477585	0.38	0.6480272	0.3519728
-0.61	0.2709308	0.7290962	-0.11	0.4562046	0.5437954	0.39	0.6517317	0.3482683
-0.6	0.2742531	0.7257469	-0.1	0.4601721	0.5398279	0.4	0.6554217	0.3445783
-0.59	0.2775953	0.7224047	-0.09	0.4641435	0.5358565	0.41	0.659097	0.340903
-0.58	0.2809573	0.7190427	-0.08	0.4681186	0.5318814	0.42	0.6627572	0.3372428
-0.57	0.2843388	0.7156612	-0.07	0.4720968	0.5279032	0.43	0.6664021	0.3335979
-0.56	0.2877397	0.7122603	-0.06	0.4760777	0.5239223	0.44	0.6700314	0.3299686
-0.55	0.2911597	0.7088403	-0.05	0.4800611	0.5199389	0.45	0.6736448	0.3263552
-0.54	0.2945985	0.7054015	-0.04	0.4840465	0.5159535	0.46	0.6772419	0.3227581

Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$
0.47	0.6808225	0.3191775	0.9	0.8159399	0.1840601	1.33	0.90824	0.09176
0.48	0.6843863	0.3156137	0.91	0.8185888	0.1814112	1.34	0.90988	0.09012
0.49	0.6879331	0.3120669	0.92	0.8212136	0.1787864	1.35	0.91149	0.08851
0.5	0.6914625	0.3085375	0.93	0.8238145	0.1761855	1.36	0.91308	0.08692
0.51	0.6949743	0.3050257	0.94	0.8263912	0.1736088	1.37	0.91466	0.08534
0.52	0.6984682	0.3015318	0.95	0.8289439	0.1710561	1.38	0.91621	0.08379
0.53	0.7019441	0.2980559	0.96	0.8314724	0.1685276	1.39	0.91774	0.08226
0.54	0.7054015	0.2945985	0.97	0.8339768	0.1660232	1.4	0.91924	0.08076
0.55	0.7088403	0.2911597	0.98	0.8364569	0.1635431	1.41	0.92073	0.07927
0.56	0.7122603	0.2877397	0.99	0.8389129	0.1610871	1.42	0.9222	0.0778
0.57	0.7156612	0.2843388	1	0.8413447	0.1586553	1.43	0.92364	0.07636
0.58	0.7190427	0.2809573	1.01	0.8437523	0.1562477	1.44	0.92507	0.07493
0.59	0.7224047	0.2775953	1.02	0.8461358	0.1538642	1.45	0.92647	0.07353
0.6	0.7257469	0.2742531	1.03	0.848495	0.151505	1.46	0.92785	0.07215
0.61	0.7290692	0.2709308	1.04	0.85083	0.14917	1.47	0.92922	0.07078
0.62	0.7323712	0.2676288	1.05	0.85314	0.14686	1.48	0.93056	0.06944
0.63	0.7356528	0.2643472	1.06	0.85543	0.14457	1.49	0.93189	0.06811
0.64	0.7389138	0.2610862	1.07	0.85769	0.14231	1.5	0.93319	0.06681
0.65	0.742154	0.257846	1.08	0.85993	0.14007	1.51	0.93448	0.06552
0.66	0.7453732	0.2546268	1.09	0.86214	0.13786	1.52	0.93574	0.06426
0.67	0.7485712	0.2514288	1.1	0.86433	0.13567	1.53	0.93699	0.06301
0.68	0.7517478	0.2482522	1.11	0.8665	0.1335	1.54	0.93822	0.06178
0.69	0.754903	0.245097	1.12	0.86864	0.13136	1.55	0.93943	0.06057
0.7	0.7580364	0.2419636	1.13	0.87076	0.12924	1.56	0.94062	0.05938
0.71	0.761148	0.238852	1.14	0.87286	0.12714	1.57	0.94179	0.05821
0.72	0.7642376	0.2357624	1.15	0.87493	0.12507	1.58	0.94295	0.05705
0.73	0.767305	0.232695	1.16	0.87698	0.12302	1.59	0.94408	0.05592
0.74	0.7703501	0.2296499	1.17	0.879	0.121	1.6	0.9452	0.0548
0.75	0.7733727	0.2266273	1.18	0.881	0.119	1.61	0.9463	0.0537
0.76	0.7763728	0.2236272	1.19	0.88298	0.11702	1.62	0.94738	0.05262
0.77	0.7793501	0.2206499	1.2	0.88493	0.11507	1.63	0.94845	0.05155
0.78	0.7823046	0.2176954	1.21	0.88686	0.11314	1.64	0.9495	0.0505
0.79	0.7852362	0.2147638	1.22	0.88877	0.11123	1.65	0.95053	0.04947
0.8	0.7881447	0.2118553	1.23	0.89065	0.10935	1.66	0.95154	0.04846
0.81	0.79103	0.20897	1.24	0.89251	0.10749	1.67	0.95254	0.04746
0.82	0.793892	0.206108	1.25	0.89435	0.10565	1.68	0.95352	0.04648
0.83	0.7967307	0.2032693	1.26	0.89617	0.10383	1.69	0.95449	0.04551
0.84	0.7995459	0.2004541	1.27	0.89796	0.10204	1.7	0.95543	0.04457
0.85	0.8023375	0.1976625	1.28	0.89973	0.10027	1.71	0.95637	0.04363
0.86	0.8051055	0.1948945	1.29	0.90147	0.09853	1.72	0.95728	0.04272
0.87	0.8078498	0.1921502	1.3	0.9032	0.0968	1.73	0.95818	0.04182
0.88	0.8105704	0.1894296	1.31	0.9049	0.0951	1.74	0.95907	0.04093

0.89 0.8132671 0.1867329 | 1.32 0.90658 0.09342 | 1.75 0.95994 0.04006

Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$
1.76	0.9608	0.0392	2.19	0.98574	0.01426	2.62	0.9956	0.0044
1.77	0.96164	0.03836	2.2	0.9861	0.0139	2.63	0.99573	0.00427
1.78	0.96246	0.03754	2.21	0.98645	0.01355	2.64	0.99585	0.00415
1.79	0.96327	0.03673	2.22	0.98679	0.01321	2.65	0.99598	0.00402
1.8	0.96407	0.03593	2.23	0.98713	0.01287	2.66	0.99609	0.00391
1.81	0.96485	0.03515	2.24	0.98745	0.01255	2.67	0.99621	0.00379
1.82	0.96562	0.03438	2.25	0.98778	0.01222	2.68	0.99632	0.00368
1.83	0.96638	0.03362	2.26	0.98809	0.01191	2.69	0.99643	0.00357
1.84	0.96712	0.03288	2.27	0.9884	0.0116	2.7	0.99653	0.00347
1.85	0.96784	0.03216	2.28	0.9887	0.0113	2.71	0.99664	0.00336
1.86	0.96856	0.03144	2.29	0.98899	0.01101	2.72	0.99674	0.00326
1.87	0.96926	0.03074	2.3	0.98928	0.01072	2.73	0.99683	0.00317
1.88	0.96995	0.03005	2.31	0.98956	0.01044	2.74	0.99693	0.00307
1.89	0.97062	0.02938	2.32	0.98983	0.01017	2.75	0.99702	0.00298
1.9	0.97128	0.02872	2.33	0.9901	0.0099	2.76	0.99711	0.00289
1.91	0.97193	0.02807	2.34	0.99036	0.00964	2.77	0.9972	0.0028
1.92	0.97257	0.02743	2.35	0.99061	0.00939	2.78	0.99728	0.00272
1.93	0.9732	0.0268	2.36	0.99086	0.00914	2.79	0.99736	0.00264
1.94	0.97381	0.02619	2.37	0.99111	0.00889	2.8	0.99745	0.00255
1.95	0.97441	0.02559	2.38	0.99134	0.00866	2.81	0.99752	0.00248
1.96	0.975	0.025	2.39	0.99158	0.00842	2.82	0.9976	0.0024
1.97	0.97558	0.02442	2.4	0.9918	0.0082	2.83	0.99767	0.00233
1.98	0.97615	0.02385	2.41	0.99202	0.00798	2.84	0.99774	0.00226
1.99	0.9767	0.0233	2.42	0.99224	0.00776	2.85	0.99781	0.00219
2	0.97725	0.02275	2.43	0.99245	0.00755	2.86	0.99788	0.00212
2.01	0.97778	0.02222	2.44	0.99266	0.00734	2.87	0.99795	0.00205
2.02	0.97831	0.02169	2.45	0.99286	0.00714	2.88	0.99801	0.00199
2.03	0.97882	0.02118	2.46	0.99305	0.00695	2.89	0.99807	0.00193
2.04	0.93822	0.06178	2.47	0.99324	0.00676	2.9	0.99813	0.00187
2.05	0.97982	0.02018	2.48	0.99343	0.00657	2.91	0.99819	0.00181
2.06	0.9803	0.0197	2.49	0.99361	0.00639	2.92	0.99825	0.00175
2.07	0.98077	0.01923	2.5	0.99379	0.00621	2.93	0.99831	0.00169
2.08	0.98124	0.01876	2.51	0.99396	0.00604	2.94	0.99836	0.00164
2.09	0.98169	0.01831	2.52	0.99413	0.00587	2.95	0.99841	0.00159
2.1	0.98214	0.01786	2.53	0.9943	0.0057	2.96	0.99846	0.00154
2.11	0.98257	0.01743	2.54	0.99446	0.00554	2.97	0.99851	0.00149
2.12	0.983	0.017	2.55	0.99461	0.00539	2.98	0.99856	0.00144
2.13	0.98341	0.01659	2.56	0.99477	0.00523	2.99	0.99861	0.00139
2.14	0.98382	0.01618	2.57	0.99492	0.00508	3	0.99869	0.00131

2.15	0.98422	0.01578	2.58	0.99506	0.00494	3.01	0.99869	0.00131
2.16	0.98461	0.01539	2.59	0.9952	0.0048	3.02	0.99874	0.00126
2.17	0.985	0.015	2.6	0.99534	0.00466	3.03	0.99878	0.00122

Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$	Z	$\Phi(z)$	$1-\Phi(z)$
3.04	0.99882	0.00118	3.36	0.99961	0.00039	3.68	0.99988	0.00012
3.05	0.99886	0.00114	3.37	0.99962	0.00038	3.69	0.99989	0.00011
3.06	0.99889	0.00111	3.38	0.99964	0.00036	3.7	0.99989	0.00011
3.07	0.99893	0.00107	3.39	0.99965	0.00035	3.71	0.9999	0.0001
3.08	0.99897	0.00103	3.4	0.99966	0.00034	3.72	0.9999	0.0001
3.09	0.999	0.001	3.41	0.99968	0.00032	3.73	0.99991	0.00009
3.1	0.99903	0.00097	3.42	0.99969	0.00031	3.74	0.99991	0.00009
3.11	0.99906	0.00094	3.43	0.9997	0.0003	3.75	0.99991	0.00009
3.12	0.9991	0.0009	3.44	0.99971	0.00029	3.76	0.99992	0.00008
3.13	0.99913	0.00087	3.45	0.99972	0.00028	3.77	0.99992	0.00008
3.14	0.99916	0.00084	3.46	0.99973	0.00027	3.78	0.99992	0.00008
3.15	0.99918	0.00082	3.47	0.99974	0.00026	3.79	0.99992	0.00008
3.16	0.99921	0.00079	3.48	0.99975	0.00025	3.8	0.99993	0.00007
3.17	0.99924	0.00076	3.49	0.99976	0.00024	3.81	0.99993	0.00007
3.18	0.99926	0.00074	3.5	0.99977	0.00023	3.82	0.99993	0.00007
3.19	0.99929	0.00071	3.51	0.99978	0.00022	3.83	0.99994	0.00006
3.2	0.99931	0.00069	3.52	0.99978	0.00022	3.84	0.99994	0.00006
3.21	0.99934	0.00066	3.53	0.99979	0.00021	3.85	0.99994	0.00006
3.22	0.99936	0.00064	3.54	0.9998	0.0002	3.86	0.99994	0.00006
3.23	0.99938	0.00062	3.55	0.99981	0.00019	3.87	0.99995	0.00005
3.24	0.9994	0.0006	3.56	0.99981	0.00019	3.88	0.99995	0.00005
3.25	0.99942	0.00058	3.57	0.99982	0.00018	3.89	0.99995	0.00005
3.26	0.99944	0.00056	3.58	0.99983	0.00017	3.9	0.99995	0.00005
3.27	0.99946	0.00054	3.59	0.99984	0.00016	3.91	0.99995	0.00005
3.28	0.99948	0.00052	3.6	0.99984	0.00016	3.92	0.99996	0.00004
3.29	0.9995	0.0005	3.61	0.99985	0.00015	3.93	0.99996	0.00004
3.3	0.99952	0.00048	3.62	0.99985	0.00015	3.94	0.99996	0.00004
3.31	0.99953	0.00047	3.63	0.99986	0.00014	3.95	0.99996	0.00004
3.32	0.99955	0.00045	3.64	0.99986	0.00014	3.96	0.99996	0.00004
3.33	0.99957	0.00043	3.65	0.99987	0.00013	3.97	0.99996	0.00004
3.34	0.99958	0.00042	3.66	0.99987	0.00013	3.98	0.99997	0.00003
3.35	0.9996	0.0004	3.67	0.99988	0.00012	<u>3.99</u>	<u>0.99997</u>	<u>0.00003</u>
						4	0.99997	0.00003

## Lampiran 5 Tabel fungsi Gamma

## TABEL FUNGSI GAMMA

$x$	$\Gamma(x)$	$x$	$\Gamma'(x)$
1.00	1.00000	1.50	.88623
1.01	.99433	1.51	.88659
1.02	.98884	1.52	.88704
1.03	.98355	1.53	.88757
1.04	.97844	1.54	.88818
1.05	.97350	1.55	.88887
1.06	.96874	1.56	.88964
1.07	.96415	1.57	.89049
1.08	.95973	1.58	.89142
1.09	.95546	1.59	.89243
1.10	.95135	1.60	.89352
1.11	.94740	1.61	.89468
1.12	.94359	1.62	.89592
1.13	.93993	1.63	.89724
1.14	.93642	1.64	.89864
1.15	.93304	1.65	.90012
1.16	.92980	1.66	.90167
1.17	.92670	1.67	.90330
1.18	.92373	1.68	.90500
1.19	.92089	1.69	.90678
1.20	.91817	1.70	.90864
1.21	.91558	1.71	.91057
1.22	.91311	1.72	.91258
1.23	.91075	1.73	.91467
1.24	.90852	1.74	.91683
1.25	.90640	1.75	.91906
1.26	.90440	1.76	.92137
1.27	.90250	1.77	.92376
1.28	.90072	1.78	.92623
1.29	.89904	1.79	.92877
1.30	.89747	1.80	.93138
1.31	.89600	1.81	.93408
1.32	.89464	1.82	.93685
1.33	.89338	1.83	.93969
1.34	.89222	1.84	.94261
1.35	.89115	1.85	.94561
1.36	.89018	1.86	.94869
1.37	.88931	1.87	.95184
1.38	.88854	1.88	.95507
1.39	.88785	1.89	.95838
1.40	.88726	1.90	.96177
1.41	.88676	1.91	.96523
1.42	.88636	1.92	.96877
1.43	.88604	1.93	.97240
1.44	.88581	1.94	.97610
1.45	.88566	1.95	.97988
1.46	.88560	1.96	.98374
1.47	.88563	1.97	.98768
1.48	.88575	1.98	.99171
1.49	.88595	1.99	.99581
1.50	.88623	2.00	1.00000

UNIVERSITAS 17 AGUSTUS 1945 SURABAYA  
 FAKULTAS TEKNIK  
 PROGRAM STUDI TEKNIK INDUSTRI

**REVISI SIDANG TUGAS AKHIR**

NAMA : Saiful Bahri  
 NBI : 1411900104  
 JUDUL : ANALISIS EFEKTIVITAS PREVENTIVE MAINTENANCE PADA AUTOMATIC NAIL MACHINE DI CV. TIGA BHAKTI  
 BATAS BEMINGGAN REVISI : 1 Minggu setelah Sidang

NO	URAIAN	BAB	HALAMAN	NO	URAIAN	BAB	HALAMAN
1	Data? dikas Lempir.	1		1.	Efektivi Cao ?!		
2	perhitungan Sahn di Sambil	1		2.	Dika base 19 investment H dan Lempir.		
3.	kegiatan dikesamil dg Tugan .	1		3.	1 x peniade pengamatan → 8 jam & 8 Babnya pengamatan yg baru. trial fr. data akhir warna → Head 4.27. ?		

Telah Direvisi,  
 Dosen Penguji 1,

  
 Dr. Jaka Purnama, ST., MT

Dosen Penguji 2,

  
 Ir. Mubhammad Singgih, MM

Surabaya, 07 Juni 2023

Mengetahui

Dosen Pembimbing,

Handy Pehr Satono, ST., MT



Lampiran 6 Lembar Revisi Sidang TA

Lampiran 7 Surat Balasan Ijin Penelitian dari Perusahaan

**CV. TIGA BHAKTI**

TELP. (031) 3815676 3815796 (HUNTING) FAX. (031) 3815676

JALAN KENJERAN 282-A

SURABAYA

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Surabaya, 14 Maret 2023

Nomor : 675 /TB/2023  
Lampiran : -  
Perihal : Balasan Permohonan Izin Penelitian  
Kepada  
Yth : Bapak Dekan Fakultas Teknik  
Universitas 17 Agustus 1945 Surabaya

Sehubungan dengan Surat Permohonan Penelitian No : 675/TB/2023 yang diajukan kepada kami oleh mahasiswa bapak atas nama :

Nama : Saiful Bahri  
NIM : 1411900104  
Jurusan / Program Studi : Teknik Industri / Fakultas Teknik


Dengan ini kami memberikan ijin kepada mahasiswa tersebut diatas untuk melakukan Kegiatan Penelitian yang dilakukan, Mulai dari tanggal 14 Maret 2023.

Demikian Surat balasan ini dibuat untuk dipergunakan sebagaimana mestinya.


Pimpinan Perusahaan  
**CV. TIGA BHAKTI**  
Jl. Kenjeran 282-A  
Telp: (031) 3815676 / 3815796  
Surabaya 60134  
Djaini Pangestika SE



Lampiran 8 Kartu Bimbingan


**JURNAL BIMBINGAN TUGAS AKHIR**  
**PRODI TEKNIK INDUSTRI**  
**SEMESTER GENAP 2022/2023**

---


Nama : SARUN BAHRI  
 NBI : 1411900104


Judul Penelitian : ANALISIS EFEKTIVITAS PREVENTIVE MAINTENANCE PADA AUTOMATIC VALVE MACHINE DI CV. TIGA BHAETI

Dosen Pembimbing : Handy Febrin Saefri, ST, MT

No.	Tanggal	Materi Bimbingan	Catatan Pembimbing	Paraf Pembimbing
1	10/3/2023	BAB I	Data outline / menu awal jam jenis komponen yg digunakan	Nandy
2	12/3/2023	BAB I	Prinsip pada yang dimana bisa berfungsi perlistrikan, proses jalur pending	Nandy
3	13/3/2023	BAB II	Penelitian kecapuru bab 1-3 minimal 25 halaman.	Nandy
4	14/3/2023	BAB II	rangka dan perlu ahengsepi	Nandy
5	15/3/2023	BAB III	rencana sumbu dan beralasan	Nandy
6	16/3/2023	BAB III	ACC PROPOSAL	Nandy
7	15/3/2023	BAB IV	Perubahan Struktural Bab IV	Nandy
8	16/3/2023	BAB IV	Pengambilan dan penyelesaian data	Nandy
9	17/3/2023	BAB IV	Perubahan Gambar komponen	Nandy
10	18/3/2023	BAB LV	Perubahan Distribusi	Nandy
11	22/3/2023	BAB .10	penelitian di penyelesaian data	Nandy
12	25/3/2023	BAB IV	Penyelesaian data	Nandy

No.	Tanggal	Materi Bimbingan	Catatan Pembimbing	Paraf Pembimbing
13	21/3/2023		Perhitungan diselamatan	Nandy
14	26/3/2023		MEMA TABEL DAN Perhitungan	Nandy
15	30/3/2023		Perhitungan diselamatan	Nandy
16	31/3/2023		ACC LAPORAN DA	Nandy

Surabaya, 31 mei 2023  
 Dosen Pembimbing  
  
 Nandy Febrin Saefri, ST, MT