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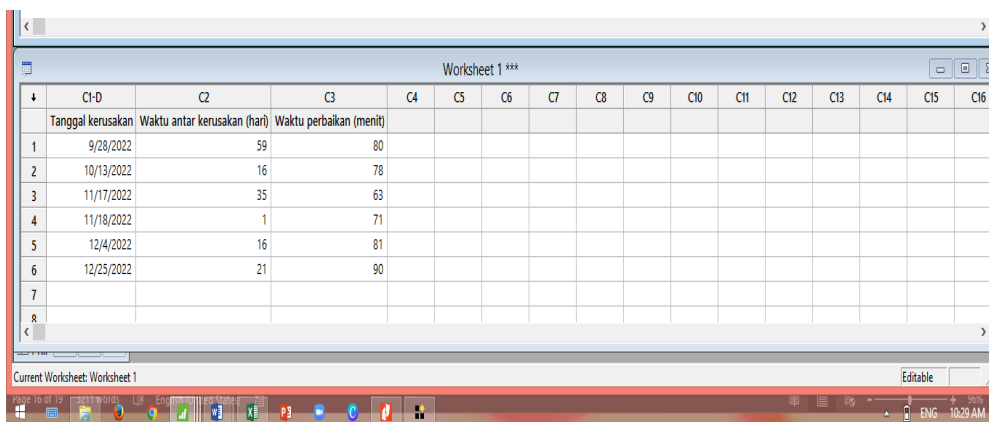
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LAMPIRAN

Lampiran 1

Mencari nilai parameter distribusi dengan Minitab 17

Masukkan data TTF dan TTR komponen kritis pada Minitab 17

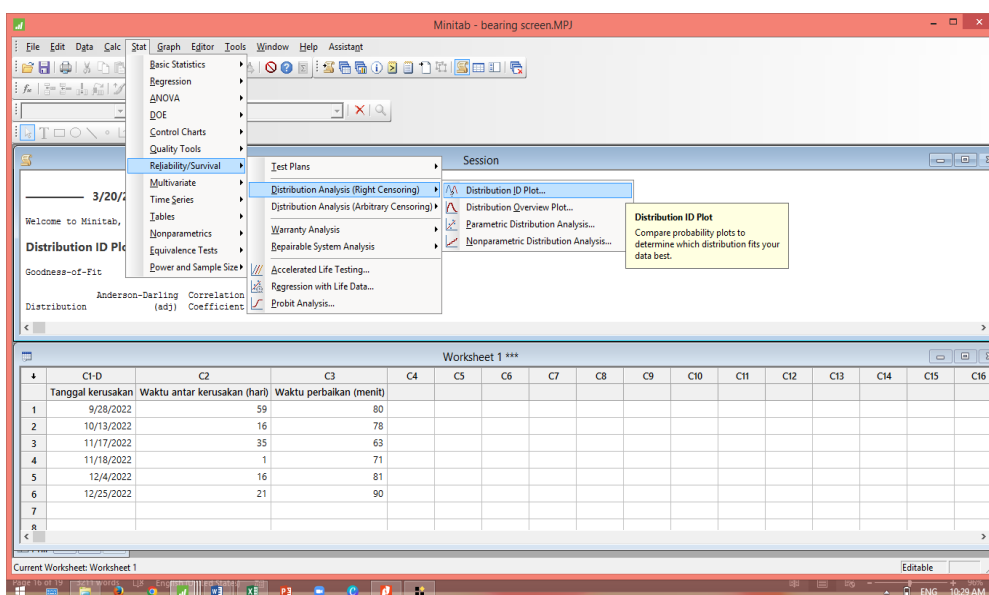


Worksheet 1 ***

	C1-D	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
	Tanggal kerusakan	Waktu antar kerusakan (hari)	Waktu perbaikan (menit)													
1	9/28/2022	59	80													
2	10/13/2022	16	78													
3	11/17/2022	35	63													
4	11/18/2022	1	71													
5	12/4/2022	16	81													
6	12/25/2022	21	90													
7																
8																

Current Worksheet: Worksheet 1

Klik stat > reliability/survival > Distribution Analysis > Distribution plot



Minitab - bearing screen.MPJ

File Edit Data Calc Stat Graph Editor Tools Window Help Assisatgt

Basic Statistics
Regression
ANOVA
DOE
Control Charts
Quality Tools

Reliability/Survival

- Test Plans
- Distribution Analysis (Right Censoring)
- Distribution Analysis (Arbitrary Censoring)
- Warranty Analysis
- Repairable System Analysis
- Accelerated Life Testing...
- Regression with Life Data...
- Probit Analysis...

Session

- Distribution ID Plot...
- Distribution Q-view Plot...
- Parametric Distribution Analysis...
- Nonparametric Distribution Analysis...

Distribution ID Plot
Compare probability plots to determine which distribution fits your data best.

Worksheet 1 ***

	C1-D	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
	Tanggal kerusakan	Waktu antar kerusakan (hari)	Waktu perbaikan (menit)													
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5	12/4/2022	16	81													
6	12/25/2022	21	90													
7																
8																

Current Worksheet: Worksheet 1

Pilih data yang akan di olah dan pilih distribusi yang menjadi pilihan nantinya

Current Worksheet: Worksheet 1

	C1-D	C2	C3
	Tanggal kerusakan	Waktu antar kerusakan (hari)	Waktu perbaikan
1	9/28/2022	59	
2	10/13/2022	16	
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5	12/4/2022	16	81
6	12/25/2022	21	90

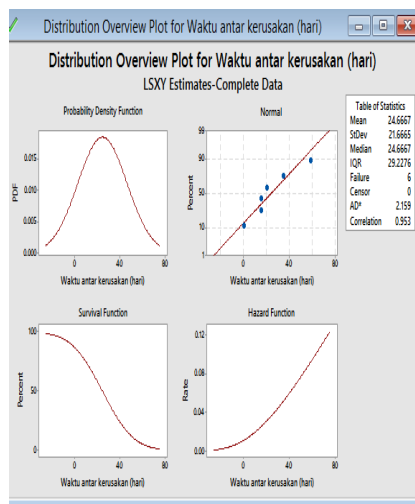
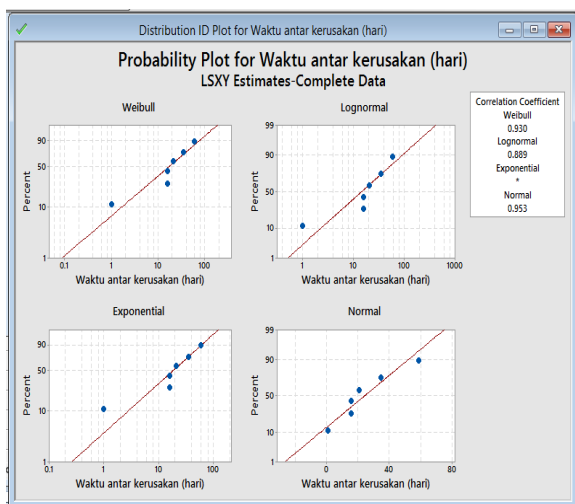
Klik option > ubah menjadi least square > ok

Current Worksheet: Worksheet 1

	C1-D	C2	C3
	Tanggal kerusakan	Waktu antar kerusakan (hari)	Waktu perbaikan
1	9/28/2022	59	
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3	11/17/2022	35	
4	11/18/2022	1	71
5	12/4/2022	16	81
6	12/25/2022	21	90

LAMPIRAN 2

Analisis distribusi TTR dan TTF komponen Bearing screen



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.206	0.930
Lognormal	2.411	0.889
Exponential	2.200	*
Normal	2.159	0.953

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	0.0912228	0.345232	0.0000548	151.870
Lognormal	1	0.536267	0.679871	0.0446931	6.43459
Exponential	1	0.268890	0.114325	0.116860	0.618703
Normal	1	-25.7370	21.2040	-67.2961	15.8220
Weibull	10	1.69508	3.18353	0.0427119	67.2717
Lognormal	10	2.38937	2.03474	0.450213	12.6808
Exponential	10	2.81885	1.19850	1.22508	6.48604
Normal	10	-3.10001	13.8181	-30.1831	23.9830

Table of MTTF

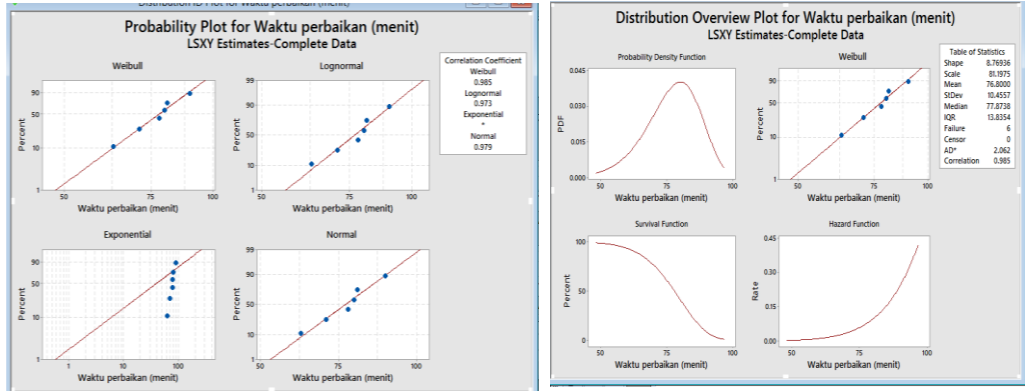
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	31.4217	24.1484	6.9672	141.710
Lognormal	41.5270	37.5915	7.0436	244.829
Exponential	26.7543	11.3752	11.6275	61.560
Normal	24.6667	8.8453	7.3302	42.003

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Normal	2.159	0.953

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.062	0.985
Lognormal	2.091	0.973
Exponential	4.986	*
Normal	2.067	0.979

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI Lower	95% Normal CI Upper
Weibull	1	48.0534	11.3136	30.2914	76.2305
Lognormal	1	55.9740	7.66117	42.8038	73.1965
Exponential	1	0.576042	0.202675	0.289046	1.14800
Normal	1	53.3086	10.4744	32.7792	73.8380
Weibull	10	62.8196	7.89512	49.1040	80.3662
Lognormal	10	64.4777	5.69904	54.2218	76.6735
Exponential	10	6.03881	2.12470	3.03015	12.0348
Normal	10	64.0236	6.74572	50.8023	77.245

Table of MTTR

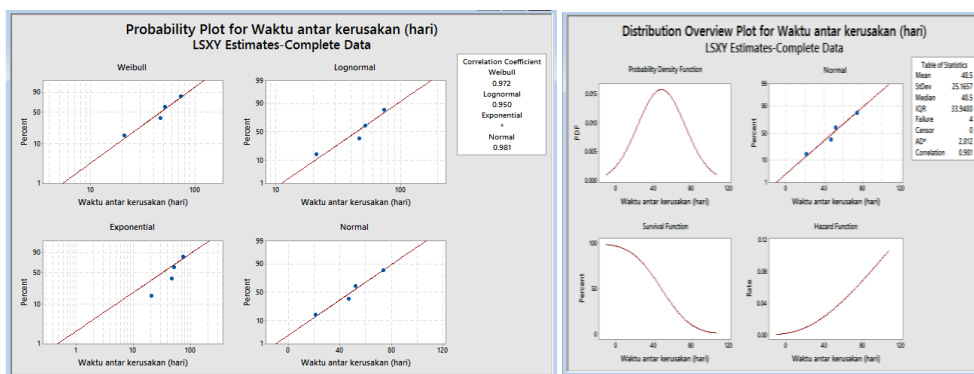
Distribution	Mean	Standard Error	95% Normal CI Lower	95% Normal CI Upper
Weibull	76.8000	4.2445	68.9157	85.586
Lognormal	77.3982	4.3143	69.3878	86.333
Exponential	57.3157	20.1660	28.7598	114.225
Normal	77.1667	4.1868	68.9606	85.373

Distribution Overview Plot for Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.062	0.985

Analisis distribusi TTR dan TTF komponen couchroll 5



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Weibull	2.826	0.972
Lognormal	2.895	0.950
Exponential	3.452	*
Normal	2.812	0.981

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	5.32034	10.5848	0.107763	262.668
Lognormal	1	11.0420	9.18612	2.16230	56.3875
Exponential	1	0.468224	0.229451	0.179195	1.22344
Normal	1	-10.0442	37.5927	-83.7246	63.6362
Weibull	10	17.7723	17.4088	2.60588	121.209
Lognormal	10	20.5752	10.7272	7.40551	57.1653
Exponential	10	4.90853	2.40540	1.87856	12.8256

Table of MTTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	50.0242	14.3597	28.4995	87.806
Lognormal	52.7160	18.8805	26.1265	106.366
Exponential	46.5879	22.8302	17.8298	121.731
Normal	48.5000	12.5829	23.8381	73.162

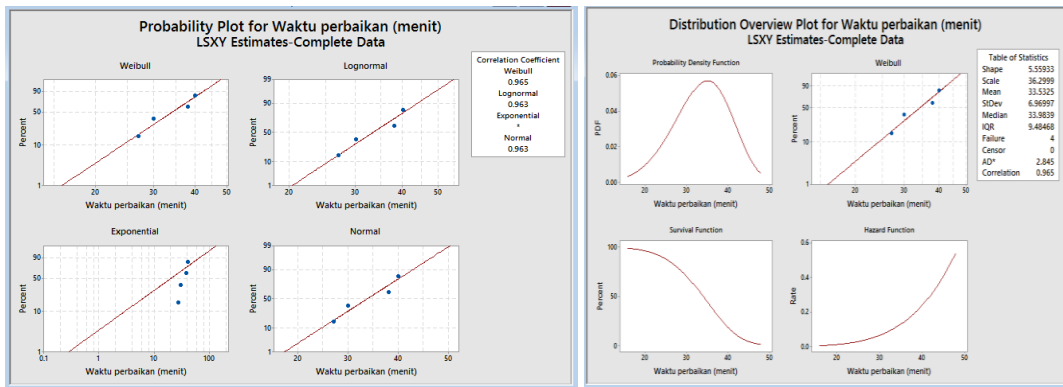
Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Normal	2.812	0.981

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.845	0.965
Lognormal	2.838	0.963
Exponential	4.138	*
Normal	2.835	0.963

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI Lower	95% Normal CI Upper
Weibull	1	15.8687	8.58032	5.49910	45.7923
Lognormal	1	20.2815	6.21306	11.1261	36.9708
Exponential	1	0.284804	0.130485	0.116027	0.699086
Normal	1	17.2828	10.1594	-2.62919	37.1948
Weibull	10	24.2162	6.75862	14.0133	41.8478
Lognormal	10	25.3441	4.83537	17.4372	36.8363
Exponential	10	2.98568	1.36791	1.21635	7.32871
Normal	10	24.6785	6.32831	12.2752	37.0817

Table of MTTF

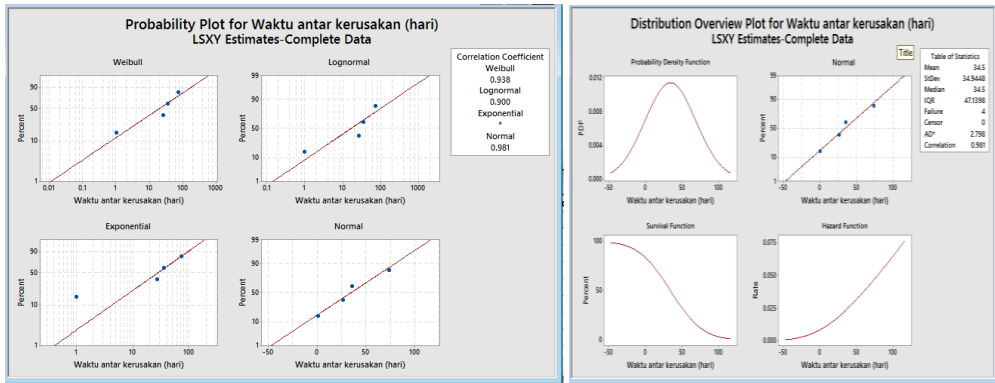
Distribution	Mean	Standard Error	95% Normal CI Lower	95% Normal CI Upper
Weibull	33.5325	3.4714	27.3745	41.0757
Lognormal	34.0769	3.7431	27.4765	42.2627
Exponential	28.3377	12.9832	11.5446	69.5584
Normal	33.7500	3.5393	26.8131	40.6869

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.845	0.965

Analisis distribusi TTR dan TTF komponen HP Shower



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.921	0.938
Lognormal	3.032	0.900
Exponential	2.873	*
Normal	2.798	0.981

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	0.0106755	0.104831	0.0000000	24377.93
Lognormal	1	0.146369	0.375904	0.0009537	22.4648
Exponential	1	0.405416	0.219190	0.140506	1.16979
Normal	1	-46.7938	52.1787	-149.062	55.4746
Weibull	10	0.698766	3.27987	0.0000706	6913.52
Lognormal	10	1.21782	2.00762	0.0481224	30.8191
Exponential	10	4.25009	2.29783	1.47296	12.2632
Normal	10	-10.2836	32.2317	-73.4566	52.8895

Table of MTTF

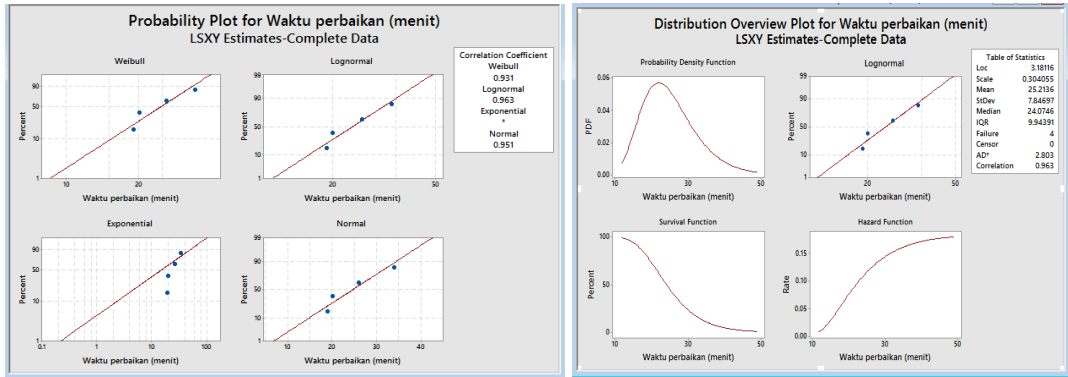
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	63.153	151.907	0.5661	7044.9
Lognormal	127.988	293.496	1.4297	11457.8
Exponential	40.339	21.809	13.9802	116.4
Normal	34.500	17.472	0.2547	68.7

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Normal	2.798	0.981

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.933	0.931
Lognormal	2.803	0.963
Exponential	3.809	*
Normal	2.823	0.951

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	8.67708	4.72874	2.98192	25.2495
Lognormal	1	11.8677	5.17672	5.04741	27.9038
Exponential	1	0.221414	0.104448	0.0878349	0.558142
Normal	1	6.75450	10.8418	-14.4950	28.0040
Weibull	10	15.5236	4.73875	8.53399	28.2378
Lognormal	10	16.3054	4.43079	9.57253	27.7738
Exponential	10	2.32115	1.09496	0.920798	5.85116
Normal	10	14.8365	6.78906	1.53023	28.1428

Table of MTTF

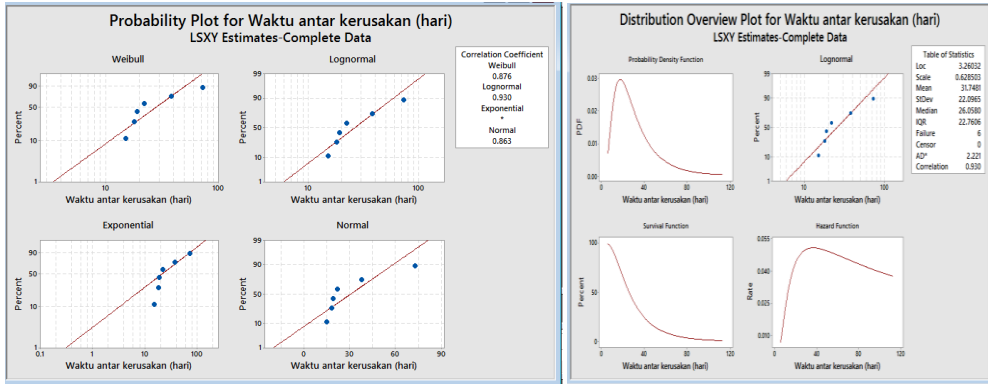
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	24.5746	3.4384	18.6805	32.3285
Lognormal	25.2136	4.0631	18.3851	34.5781
Exponential	22.0305	10.3925	8.7395	55.5346
Normal	24.7500	3.8678	17.1693	32.3307

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	2.803	0.963

Analisis distribusi TTR dan TTF komponen Long Felt



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.864	0.876
Lognormal	2.221	0.930
Exponential	2.526	*
Normal	2.510	0.863

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	3.46569	2.33293	0.926412	12.9651
Lognormal	1	6.03882	3.58261	1.88784	19.3170
Exponential	1	0.319994	0.132750	0.141911	0.721548
Normal	1	-19.7092	18.5287	-56.0248	16.6065
Weibull	10	11.0149	4.64643	4.81854	25.1793
Lognormal	10	11.6449	4.54997	5.41436	25.0451
Exponential	10	3.35458	1.39166	1.48770	7.56419
Normal	10	2.99020	12.6089	-21.7227	27.7031

Table of MTF

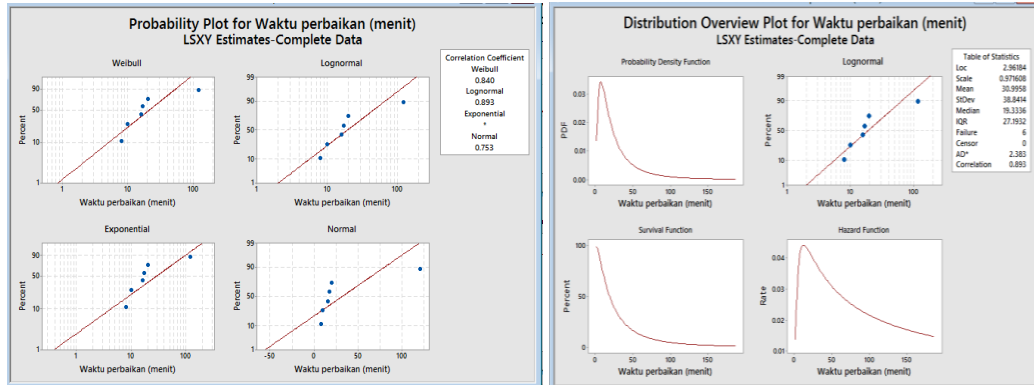
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	29.5363	6.4319	19.2751	45.2601
Lognormal	31.7481	9.3493	17.8260	56.5434
Exponential	31.8391	13.2086	14.1201	71.7934
Normal	30.8333	8.8696	13.4491	48.2175

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	2.221	0.930

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	3.502	0.840
Lognormal	2.383	0.893
Exponential	2.468	*
Normal	3.192	0.753

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI Lower	95% Normal CI Upper
Weibull	1	0.857787	0.818140	0.132288	5.56209
Lognormal	1	2.01686	1.74688	0.369335	11.0137
Exponential	1	0.411259	0.190356	0.166007	1.01884
Normal	1	-54.4753	27.2280	-107.841	-1.10935
Weibull	10	5.11505	3.19477	1.50385	17.3978
Lognormal	10	5.56600	3.23237	1.78328	17.3726
Exponential	10	4.31135	1.99556	1.74030	10.6807
Normal	10	-15.7129	19.6157	-54.1589	22.7331

Table of MTF

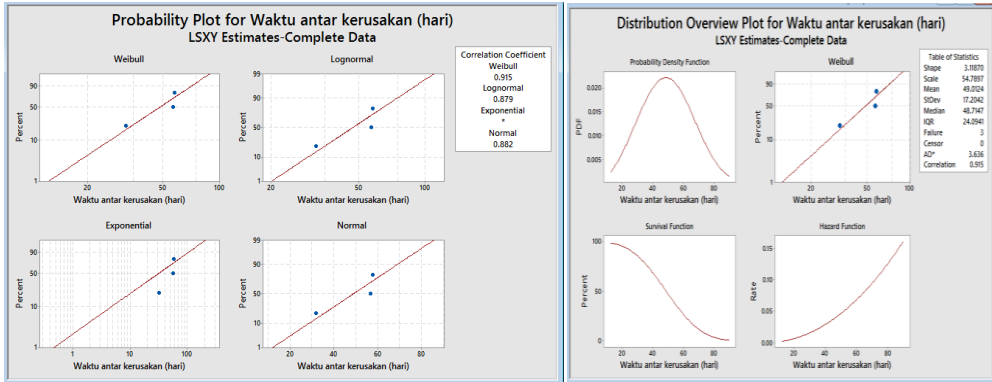
Distribution	Mean	Standard Error	95% Normal CI Lower	95% Normal CI Upper
Weibull	26.0577	8.4333	13.8183	49.138
Lognormal	30.9958	15.8277	11.3932	84.326
Exponential	40.9200	18.9403	16.5176	101.373
Normal	31.8333	15.1462	2.1473	61.519

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	2.383	0.893

Analisis distribusi TTR dan TTF komponen stretcher longfelt



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	3.636	0.915
Lognormal	3.683	0.879
Exponential	4.179	*
Normal	3.674	0.882

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	12.5344	31.0855	0.0970781	1618.41
Lognormal	1	20.3612	12.2391	6.26825	66.1392
Exponential	1	0.459355	0.256138	0.153998	1.37019
Normal	1	12.1545	26.5225	-39.8287	64.1377
Weibull	10	26.6271	31.3035	2.65846	266.697
Lognormal	10	29.7293	11.1286	14.2743	61.9178
Exponential	10	4.81555	2.68517	1.61441	14.3641
Normal	10	28.7023	16.4839	-3.60558	61.0102

Table of MTTF

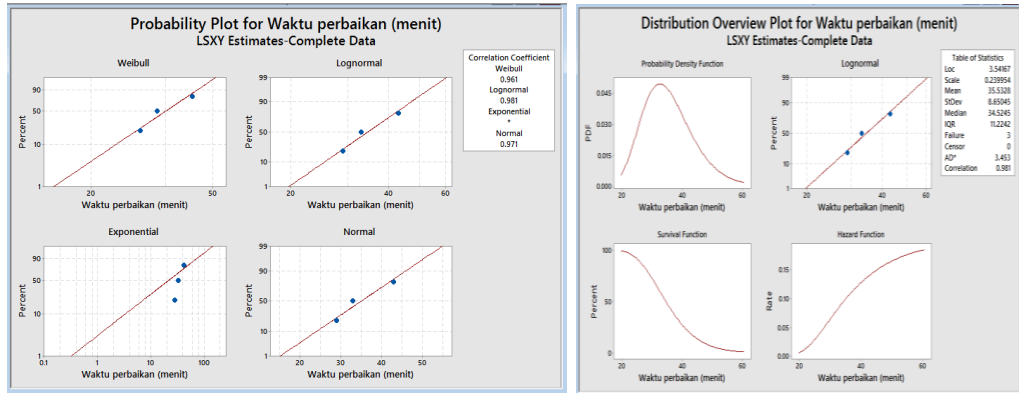
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	49.0124	9.9554	32.9163	72.980
Lognormal	50.5030	11.4553	32.3775	78.775
Exponential	45.7054	25.4855	15.3227	136.333
Normal	49.0000	9.1443	31.0775	66.922

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	3.636	0.915

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	3.511	0.961
Lognormal	3.453	0.981
Exponential	4.207	*
Normal	3.464	0.971

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	15.0886	9.56030	4.35830	52.2372
Lognormal	1	19.7559	10.4262	7.02224	55.5799
Exponential	1	0.323312	0.178956	0.109263	0.956688
Normal	1	15.1601	18.1508	-20.4149	50.7351
Weibull	10	24.1330	8.01483	12.5869	46.2706
Lognormal	10	25.3849	7.94235	13.7485	46.8702
Exponential	10	3.38937	1.87605	1.14543	10.0292
Normal	10	24.0705	10.8105	2.88224	45.2587

Table of MTTF

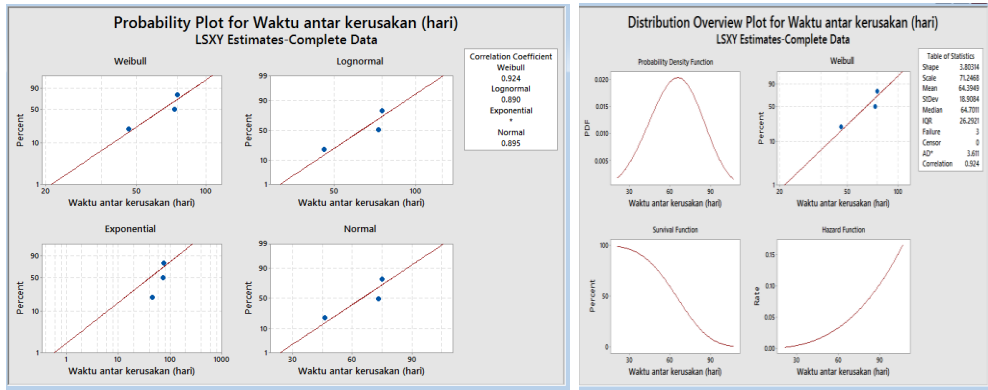
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	34.7444	4.5635	26.8586	44.9455
Lognormal	35.5328	5.2646	26.5776	47.5055
Exponential	32.1692	17.8060	10.8716	95.1897
Normal	35.0000	4.9238	25.3494	44.6506

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	3.453	0.981

Analisis distribusi TTR dan TTF komponen wire 1



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	3.611	0.924
Lognormal	3.659	0.890
Exponential	4.239	*
Normal	3.646	0.895

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	21.2548	45.9309	0.307638	1468.50
Lognormal	1	31.5877	16.0202	11.6901	85.3528
Exponential	1	0.595901	0.329435	0.201651	1.76095
Normal	1	23.5697	30.5044	-36.2177	83.3572
Weibull	10	39.4264	40.2270	5.33706	291.255
Lognormal	10	43.1161	13.5420	23.2966	79.7971
Exponential	10	6.24699	3.45356	2.11396	18.4606
Normal	10	42.0270	18.8374	5.10640	78.9475

Table of MTTF

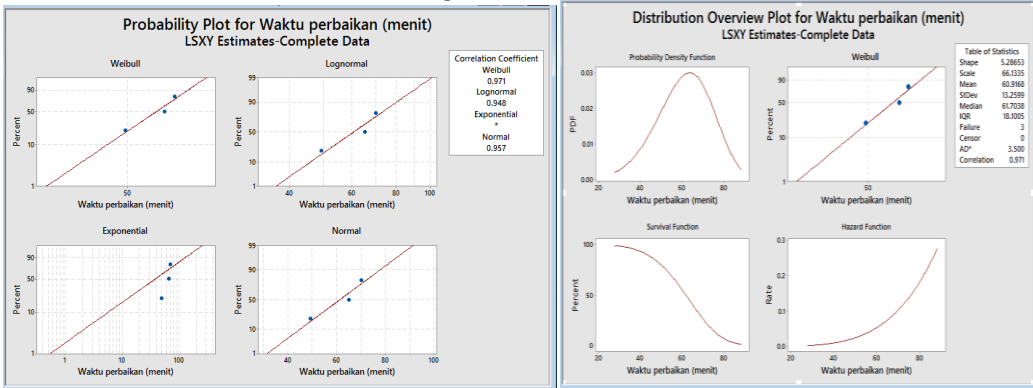
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	64.3949	10.7279	46.4563	89.260
Lognormal	66.0141	12.0446	46.1669	94.394
Exponential	59.2916	32.7785	20.0641	175.213
Normal	64.6667	10.1994	44.6762	84.657

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	3.611	0.924

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Weibull	3.500	0.971
Lognormal	3.543	0.948
Exponential	4.310	*
Normal	3.525	0.957

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	27.7022	43.8709	1.24307	617.349
Lognormal	1	36.5779	15.7660	15.7155	85.1351
Exponential	1	0.553610	0.302905	0.189441	1.61784
Normal	1	31.5735	26.1118	-19.6048	82.7517
Weibull	10	43.2067	32.0785	10.0829	185.148
Lognormal	10	45.8994	11.9110	27.6006	76.3300
Exponential	10	5.80365	3.17544	1.98596	16.9602
Normal	10	44.9391	15.6497	14.2662	75.6119

Table of MTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	60.9168	7.5751	47.7407	77.729
Lognormal	62.0850	8.1470	48.0054	80.294
Exponential	55.0837	30.1388	18.8492	160.973
Normal	61.3333	7.3858	46.8575	75.809

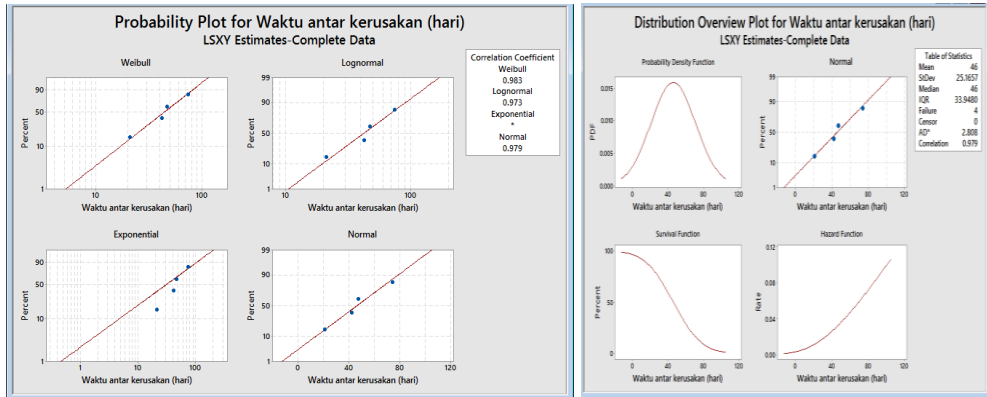
Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Weibull	3.500	0.971

Analisis distribusi TTR dan TTF komponen wire 9



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.808	0.983
Lognormal	2.835	0.973
Exponential	3.368	*
Normal	2.808	0.979

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	5.15648	8.15087	0.232732	114.249
Lognormal	1	10.4309	9.13817	1.87333	58.0806
Exponential	1	0.452335	0.223713	0.171585	1.19246
Normal	1	-12.5442	37.4490	-85.9428	60.8544
Weibull	10	17.0093	13.6925	3.51128	82.3959
Lognormal	10	19.4674	10.5739	6.71385	56.4475
Exponential	10	4.74196	2.34525	1.79877	12.5009
Normal	10	13.7488	23.1491	-31.6226	59.1202

Table of MTTF

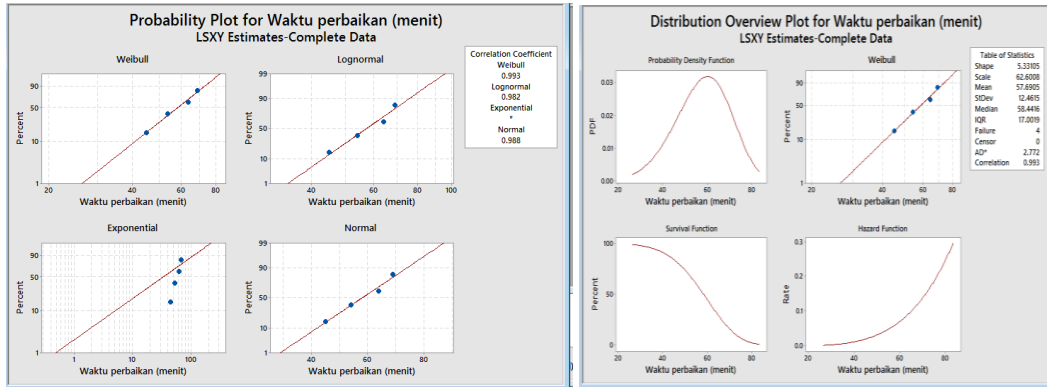
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	47.2902	12.9447	27.6550	80.867
Lognormal	50.0205	18.3016	24.4179	102.468
Exponential	45.0070	22.2593	17.0725	118.648
Normal	46.0000	12.5829	21.3381	70.662

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Normal	2.808	0.979

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Weibull	2.772	0.993
Lognormal	2.801	0.982
Exponential	4.142	*
Normal	2.784	0.988

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	26.4136	17.0657	7.44509	93.7099
Lognormal	1	34.2844	11.3080	17.9616	65.4406
Exponential	1	0.489855	0.224526	0.199488	1.20287
Normal	1	29.0828	18.8506	-7.86379	66.0293
Weibull	10	41.0443	13.2859	21.7631	77.4079
Lognormal	10	43.1571	8.78799	28.9550	64.3251
Exponential	10	5.13529	2.35377	2.09129	12.6100
Normal	10	42.0699	11.6079	19.3188	64.8210

Table of MTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	57.6905	6.1562	46.8028	71.111
Lognormal	58.6403	6.6856	46.8975	73.323
Exponential	48.7402	22.3402	19.8489	119.684
Normal	58.0000	6.2152	45.8185	70.181

Distribution Overview Plot: Waktu perbaikan (menit)

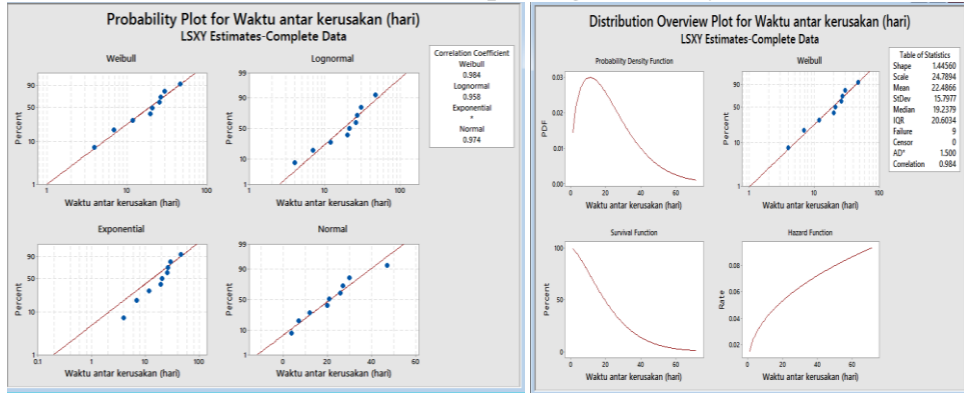
Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Weibull	2.772	0.993

LAMPIRAN 3

Analisis distribusi TTR dan TTF komponen gearbox dryer



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	1.500	0.984
Lognormal	1.648	0.958
Exponential	2.351	*
Normal	1.509	0.974

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	1.02865	1.25642	0.0938817	11.2707
Lognormal	1	2.57664	1.55266	0.790909	8.39421
Exponential	1	0.202465	0.0652432	0.107661	0.380754
Normal	1	-11.2221	10.6035	-32.0045	9.56036
Weibull	10	5.22637	3.37339	1.47499	18.5188
Lognormal	10	6.06183	2.44051	2.75365	13.3444
Exponential	10	2.12250	0.683962	1.12864	3.99156
Normal	10	3.49882	7.03454	-10.2886	17.2863

Table of MTTF

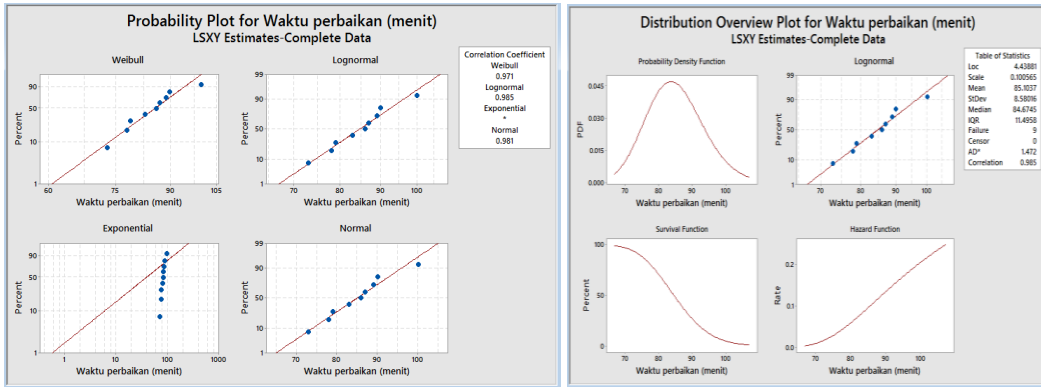
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	22.4866	5.48400	13.9422	36.2671
Lognormal	24.2074	8.03814	12.6271	46.4079
Exponential	20.1451	6.49164	10.7121	37.8847
Normal	21.5556	4.69658	12.3504	30.7607

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	1.500	0.984

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	1.729	0.971
Lognormal	1.472	0.985
Exponential	6.879	*
Normal	1.488	0.981

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	60.7089	5.99726	50.0224	73.6784
Lognormal	1	67.0115	5.15575	57.6315	77.9183
Exponential	1	0.584163	0.161020	0.340335	1.00268
Normal	1	65.0659	6.51430	52.2981	77.8337
Weibull	10	73.5276	4.32917	65.5138	82.5215
Lognormal	10	74.4356	3.78021	67.3834	82.2260
Exponential	10	6.12395	1.68802	3.56783	10.5114
Normal	10	74.0186	4.30822	65.5747	82.4626

Table of MTTF

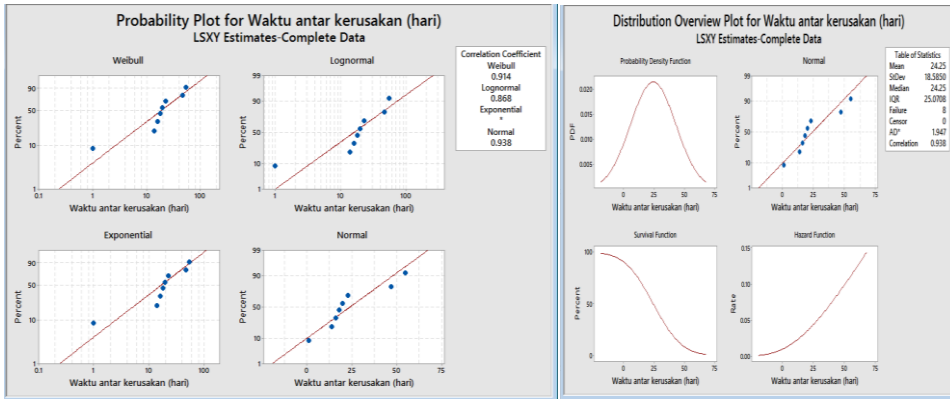
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	84.7180	2.8080	79.3893	90.4043
Lognormal	85.1037	2.8642	79.6712	90.9067
Exponential	58.1238	16.0214	33.8631	99.7656
Normal	85.0000	2.8563	79.4018	90.5982

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	1.472	0.985

Analisis distribusi TTR dan TTF komponen bearing dryer



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	1.905	0.914
Lognormal	2.187	0.868
Exponential	2.133	*
Normal	1.947	0.938

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	0.242788	0.570704	0.0024231	24.3268
Lognormal	1	1.03247	0.859518	0.201957	5.27829
Exponential	1	0.245287	0.0870000	0.122395	0.491569
Normal	1	-18.9851	14.3843	-47.1779	9.20766
Weibull	10	2.72052	3.24147	0.263302	28.1093
Lognormal	10	3.55724	2.05082	1.14916	11.0115
Exponential	10	2.57141	0.912046	1.28310	5.15325
Normal	10	0.432395	9.63661	-18.4550	19.3198

Table of MTTF

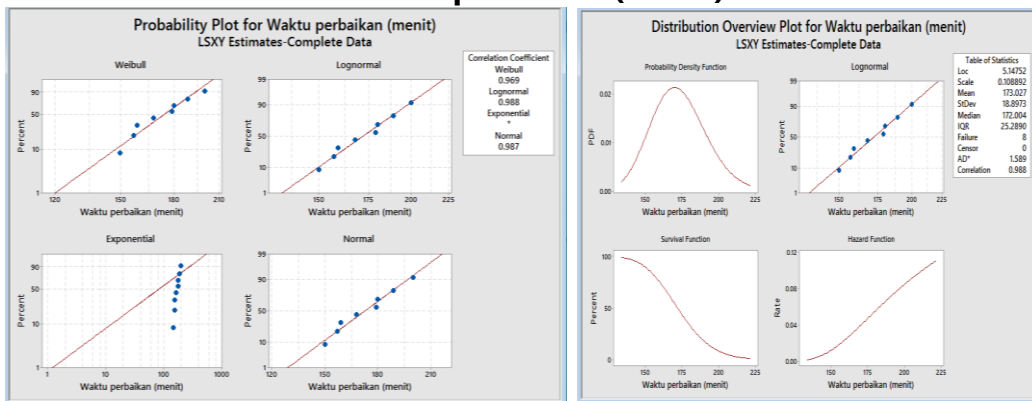
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	27.8608	12.6875	11.4121	68.0175
Lognormal	32.6964	18.1858	10.9916	97.2613
Exponential	24.4058	8.6564	12.1782	48.9107
Normal	24.2500	6.5708	11.3715	37.1285

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Normal	1.947	0.938

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	1.719	0.969
Lognormal	1.589	0.988
Exponential	6.145	*
Normal	1.592	0.987

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI Lower	95% Normal CI Upper
Weibull	1	119.981	15.3596	93.3560	154.198
Lognormal	1	133.513	12.1297	111.736	159.535
Exponential	1	1.21472	0.359226	0.680378	2.16870
Normal	1	128.912	15.6829	98.1739	159.650
Weibull	10	147.594	10.8212	127.838	170.403
Lognormal	10	149.601	8.89739	133.140	168.096
Exponential	10	12.7342	3.76587	7.13259	22.7351
Normal	10	148.600	10.2742	128.463	168.737

Table of MTF

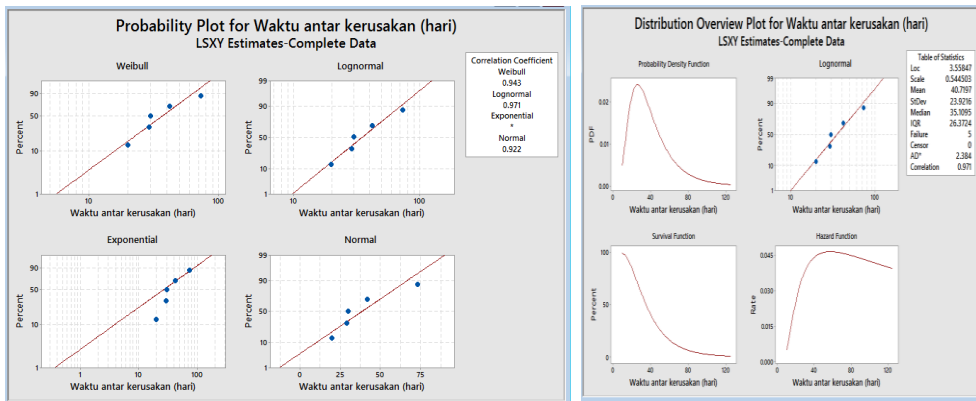
Distribution	Mean	Standard Error	95% Normal CI Lower	95% Normal CI Upper
Weibull	172.102	6.5456	159.739	185.421
Lognormal	173.027	6.6947	160.391	186.659
Exponential	120.863	35.7427	67.697	215.784
Normal	172.750	6.6624	159.692	185.808

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	1.589	0.988

Analisis distribusi TTR dan TTF komponen canvas roll



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.612	0.943
Lognormal	2.384	0.971
Exponential	3.025	*
Normal	2.527	0.922

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	5.70655	4.41128	1.25423	25.9639
Lognormal	1	9.89240	6.33675	2.81871	34.7179
Exponential	1	0.379336	0.167319	0.159799	0.900481
Normal	1	-12.2474	23.6390	-58.5791	34.0842
Weibull	10	16.1277	7.26259	6.67210	38.9838
Lognormal	10	17.4731	7.11533	7.86586	38.8144
Exponential	10	3.97668	1.75405	1.67521	9.43999
Normal	10	10.6787	15.3837	-19.4728	40.8302

Table of MTTF

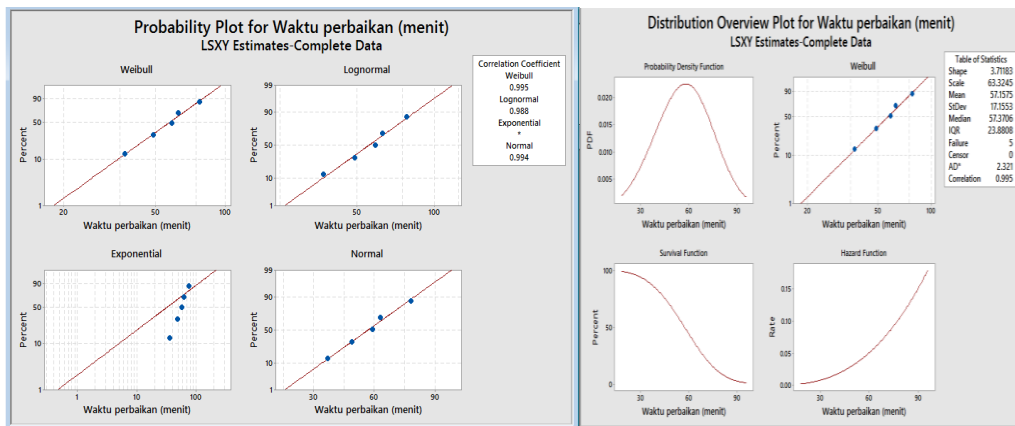
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	38.6369	8.1689	25.5291	58.4749
Lognormal	40.7197	11.4108	23.5112	70.5237
Exponential	37.7436	16.6481	15.8998	89.5971
Normal	38.8000	9.8133	19.5663	58.0337

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	2.384	0.971

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Weibull	2.321	0.995
Lognormal	2.343	0.988
Exponential	3.874	*
Normal	2.317	0.994

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	18.3376	12.0800	5.04209	66.6921
Lognormal	1	26.3699	10.2235	12.3340	56.3787
Exponential	1	0.484712	0.199045	0.216741	1.08399
Normal	1	16.2410	21.6076	-26.1091	58.5910
Weibull	10	34.5361	11.9088	17.5695	67.8870
Lognormal	10	36.8286	9.01023	22.8001	59.4887
Exponential	10	5.08137	2.08665	2.27215	11.3638
Normal	10	34.6363	13.5968	7.98711	61.2854

Table of MTTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	57.1575	7.5985	44.0468	74.171
Lognormal	58.3895	8.8356	43.4040	78.549
Exponential	48.2284	19.8049	21.5655	107.857
Normal	57.2000	7.8739	41.7674	72.633

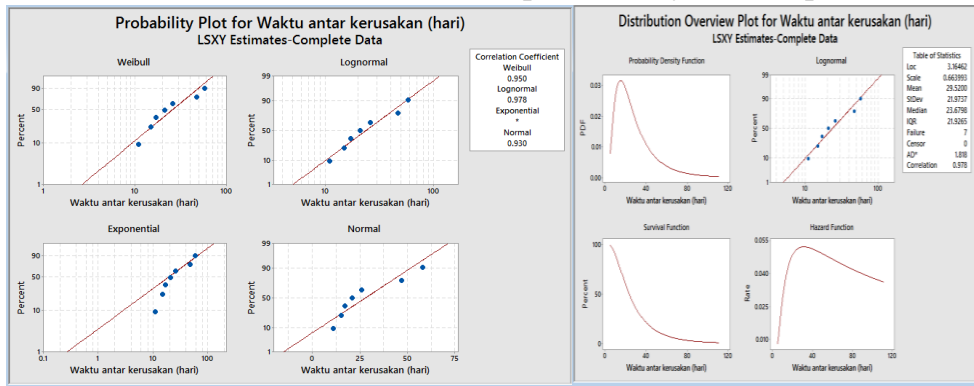
Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Weibull	2.321	0.995

Analisis distribusi TTR dan TTF komponen Pulley tali talirope



Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.098	0.950
Lognormal	1.818	0.978
Exponential	2.426	*
Normal	2.049	0.930

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	2.66224	2.11120	0.562641	12.5969
Lognormal	1	5.05282	3.03975	1.55402	16.4290
Exponential	1	0.274271	0.102604	0.131750	0.570967
Normal	1	-15.2012	15.5742	-45.7260	15.3237
Weibull	10	9.33823	4.32611	3.76642	23.1526
Lognormal	10	10.1116	3.96424	4.68929	21.8038
Exponential	10	2.87526	1.07562	1.38117	5.98561
Normal	10	4.13694	10.3777	-16.2031	24.4769

Table of MTTF

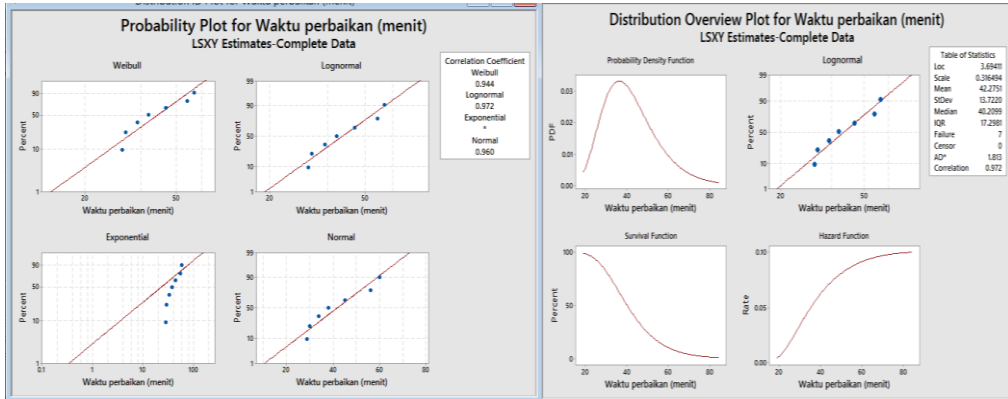
Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	27.5766	5.8240	18.2294	41.7167
Lognormal	29.5200	8.7240	16.5410	52.6829
Exponential	27.2898	10.2090	13.1090	56.8107
Normal	27.8571	6.9957	14.1458	41.5685

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	1.818	0.978

Distribution ID Plot: Waktu perbaikan (menit)



Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Weibull	2.036	0.944
Lognormal	1.813	0.972
Exponential	4.003	*
Normal	1.870	0.960

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	14.1991	5.58149	6.57149	30.6801
Lognormal	1	19.2563	5.46902	11.0363	33.5989
Exponential	1	0.340159	0.115808	0.174536	0.662944
Normal	1	10.7014	11.7398	-12.3082	33.7111
Weibull	10	25.8139	5.85368	16.5512	40.2602
Lognormal	10	26.8029	4.97454	18.6295	38.5623
Exponential	10	3.56598	1.21405	1.82971	6.94983
Normal	10	24.6297	7.71425	9.51009	39.7494

Table of MTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	41.4339	4.5314	33.4398	51.3391
Lognormal	42.2751	5.2696	33.1117	53.9744
Exponential	33.8455	11.5228	17.3662	65.9624
Normal	41.7143	5.0387	31.8386	51.5899

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Anderson-Darling Correlation

Distribution	(adj)	Coefficient
Lognormal	1.813	0.972

Analisis distribusi TTR dan TTF komponen rotary

Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	1.868	0.875
Lognormal	2.317	0.818
Exponential	2.894	*
Normal	1.645	0.948

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	0.573146	1.00572	0.0183923	17.8606
Lognormal	1	1.82145	0.964706	0.645044	5.14333
Exponential	1	0.188539	0.0567581	0.104509	0.340133
Normal	1	-8.01930	8.34575	-24.3767	8.33806
Weibull	10	3.85683	3.39197	0.688055	21.6191
Lognormal	10	4.78720	1.82109	2.27131	10.0899
Exponential	10	1.97651	0.595011	1.09560	3.56571
Normal	10	4.87895	5.63497	-6.16538	15.9233

Table of MTTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	22.3727	6.85621	12.2706	40.7918
Lognormal	24.0211	8.19391	12.3094	46.8758
Exponential	18.7595	5.64738	10.3986	33.8430
Normal	20.7000	3.90390	13.0485	28.3515

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Normal	1.645	0.948

Distribution ID Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	1.661	0.953
Lognormal	1.327	0.986
Exponential	6.206	*
Normal	1.375	0.977

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	23.7612	4.25570	16.7269	33.7536
Lognormal	1	28.3012	3.89674	21.6075	37.0685
Exponential	1	0.325285	0.0872368	0.192302	0.550230
Normal	1	24.5073	6.20499	12.3457	36.6688
Weibull	10	34.0446	3.64132	27.6062	41.9847
Lognormal	10	34.6261	3.16394	28.9485	41.4173
Exponential	10	3.41006	0.914528	2.01596	5.76821
Normal	10	33.7109	4.13391	25.6085	41.8132

Table of MTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	44.7772	2.58575	39.9855	50.1431
Lognormal	45.1799	2.79675	40.0179	51.0079
Exponential	32.3656	8.67999	19.1339	54.7474
Normal	45.0000	2.78564	39.5403	50.4597

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	1.327	0.986

Analisis distribusi TTR dan TTF komponen body rotary

Distribution ID Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	2.090	0.938
Lognormal	1.826	0.958
Exponential	3.051	*
Normal	1.974	0.931

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	3.83120	2.21747	1.23216	11.9125
Lognormal	1	6.38982	2.67343	2.81420	14.5085
Exponential	1	0.218026	0.0730960	0.113014	0.420615
Normal	1	-5.28742	9.69620	-24.2916	13.7168
Weibull	10	10.3759	3.53028	5.32612	20.2133
Lognormal	10	11.0569	3.07028	6.41613	19.0544
Exponential	10	2.28563	0.766286	1.18476	4.40942
Normal	10	7.92212	6.51529	-4.84762	20.6919

Table of MTTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	23.8752	3.85332	17.4007	32.7586
Lognormal	24.8634	5.07052	16.6714	37.0809
Exponential	21.6934	7.27299	11.2448	41.8508
Normal	24.1250	4.47004	15.3639	32.8861

Distribution Overview Plot: Waktu antar kerusakan (hari)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	1.826	0.958

Distribution ID Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Weibull	1.691	0.972
Lognormal	1.582	0.986
Exponential	4.777	*
Normal	1.600	0.982

Table of Percentiles

Distribution	Percent	Percentile	Standard Error	95% Normal CI	
				Lower	Upper
Weibull	1	21.0411	6.80540	11.1625	39.6621
Lognormal	1	27.2188	5.85202	17.8591	41.4836
Exponential	1	0.390795	0.120791	0.213231	0.716222
Normal	1	20.5773	10.7617	-0.515250	41.6698
Weibull	10	34.4746	6.27592	24.1292	49.2557
Lognormal	10	35.6551	5.02243	27.0533	46.9920
Exponential	10	4.09681	1.26629	2.23536	7.50836
Normal	10	34.1844	7.06502	20.3372	48.0316

Table of MTF

Distribution	Mean	Standard Error	95% Normal CI	
			Lower	Upper
Weibull	50.6451	4.3237	42.8419	59.8695
Lognormal	51.3389	4.8199	42.7102	61.7108
Exponential	38.8837	12.0186	21.2163	71.2635
Normal	50.8750	4.6046	41.8502	59.8998

Distribution Overview Plot: Waktu perbaikan (menit)

Goodness-of-Fit

Distribution	Anderson-Darling (adj)	Correlation Coefficient
Lognormal	1.582	0.986

Lampiran 3

Tabel kehandalan

(t)	bearing screen	Couch roll 5	hp shower	Long felt	strece long felt	wire 1	wire 9	gearbox dryer	Bearing dryer	canvas roll	pulley talirope	rotary	Body rotary
1	0.862	0.970	0.832	1.000	1.000	1.000	0.971	0.990	0.896	1.000	1.000	0.944	0.056
2	0.851	0.967	0.824	1.000	1.000	1.000	0.969	0.974	0.887	1.000	1.000	0.935	0.066
3	0.844	0.964	0.816	1.000	1.000	1.000	0.966	0.953	0.877	1.000	0.999	0.924	0.076
4	0.829	0.961	0.808	0.999	1.000	1.000	0.963	0.930	0.864	1.000	0.997	0.912	0.089
5	0.816	0.957	0.800	0.996	0.999	1.000	0.959	0.905	0.853	1.000	0.991	0.898	0.102
6	0.805	0.955	0.791	0.991	0.999	1.000	0.956	0.878	0.841	1.000	0.981	0.883	0.117
7	0.791	0.951	0.788	0.983	0.998	1.000	0.953	0.850	0.826	0.999	0.967	0.867	0.134
8	0.776	0.945	0.776	0.971	0.997	1.000	0.949	0.822	0.813	0.997	0.950	0.849	0.152
9	0.764	0.942	0.767	0.956	0.996	1.000	0.944	0.792	0.797	0.994	0.925	0.829	0.171
10	0.749	0.937	0.758	0.938	0.995	0.999	0.940	0.763	0.782	0.990	0.907	0.808	0.192
11	0.736	0.931	0.749	0.918	0.993	0.999	0.935	0.733	0.763	0.984	0.877	0.782	0.218
12	0.719	0.927	0.739	0.894	0.991	0.999	0.929	0.703	0.749	0.977	0.849	0.758	0.242
13	0.702	0.921	0.729	0.869	0.989	0.998	0.924	0.674	0.732	0.967	0.819	0.732	0.268
14	0.688	0.916	0.723	0.841	0.986	0.998	0.918	0.644	0.712	0.956	0.785	0.706	0.295
15	0.670	0.908	0.712	0.813	0.982	0.997	0.912	0.615	0.695	0.942	0.755	0.677	0.323
16	0.652	0.902	0.702	0.782	0.978	0.997	0.905	0.587	0.677	0.927	0.723	0.648	0.352
17	0.637	0.894	0.692	0.755	0.974	0.996	0.898	0.559	0.656	0.910	0.692	0.618	0.382
18	0.618	0.887	0.681	0.723	0.969	0.995	0.891	0.532	0.637	0.891	0.659	0.587	0.413
19	0.603	0.879	0.670	0.692	0.964	0.993	0.883	0.506	0.618	0.871	0.629	0.556	0.444
20	0.584	0.871	0.659	0.663	0.957	0.992	0.875	0.480	0.594	0.851	0.599	0.520	0.480
21	0.564	0.862	0.648	0.633	0.951	0.990	0.867	0.455	0.575	0.829	0.572	0.508	0.492
22	0.548	0.853	0.641	0.607	0.943	0.989	0.858	0.431	0.552	0.805	0.544	0.460	0.540
23	0.528	0.844	0.629	0.579	0.935	0.986	0.845	0.407	0.532	0.782	0.512	0.429	0.571
24	0.512	0.834	0.618	0.552	0.926	0.984	0.839	0.385	0.512	0.758	0.508	0.394	0.606
25	0.496	0.824	0.607	0.524	0.917	0.981	0.829	0.363	0.508	0.736	0.468	0.367	0.633
26	0.476	0.813	0.595	0.512	0.906	0.979	0.819	0.342	0.472	0.709	0.444	0.334	0.666
27	0.460	0.802	0.583	0.480	0.895	0.975	0.808	0.323	0.448	0.684	0.421	0.305	0.695
28	0.440	0.791	0.572	0.456	0.883	0.972	0.797	0.304	0.429	0.663	0.401	0.278	0.722
29	0.421	0.779	0.564	0.433	0.871	0.968	0.785	0.285	0.405	0.637	0.378	0.252	0.749
30	0.405	0.767	0.552	0.413	0.858	0.963	0.773	0.268	0.386	0.614	0.360	0.227	0.773
31	0.386	0.755	0.540	0.386	0.843	0.959	0.761	0.251	0.367	0.591	0.341	0.203	0.797
32	0.371	0.742	0.528	0.371	0.829	0.953	0.749	0.236	0.345	0.568	0.326	0.182	0.819
33	0.352	0.729	0.516	0.352	0.813	0.948	0.736	0.221	0.326	0.544	0.309	0.161	0.839
34	0.334	0.719	0.504	0.334	0.797	0.942	0.723	0.207	0.309	0.480	0.291	0.130	0.870
35	0.319	0.702	0.496	0.319	0.780	0.935	0.709	0.193	0.288	0.460	0.278	0.123	0.877
36	0.302	0.692	0.484	0.302	0.763	0.928	0.695	0.180	0.271	0.484	0.264	0.108	0.893
37	0.288	0.677	0.472	0.288	0.744	0.920	0.681	0.168	0.252	0.536	0.252	0.094	0.907

38	0.271	0.663	0.460	0.274	0.726	0.912	0.667	0.157	0.236	0.556	0.239	0.081	0.919
39	0.255	0.648	0.448	0.258	0.706	0.904	0.652	0.146	0.221	0.575	0.227	0.070	0.931
40	0.242	0.629	0.437	0.245	0.687	0.894	0.637	0.136	0.203	0.594	0.215	0.059	0.941
41	0.227	0.618	0.429	0.233	0.666	0.885	0.622	0.127	0.190	0.610	0.203	0.051	0.950
42	0.212	0.598	0.417	0.221	0.646	0.874	0.607	0.118	0.176	0.371	0.192	0.043	0.957
43	0.201	0.587	0.405	0.212	0.624	0.863	0.591	0.110	0.161	0.356	0.184	0.035	0.965
44	0.187	0.572	0.394	0.201	0.603	0.852	0.575	0.102	0.149	0.341	0.176	0.029	0.971
45	0.174	0.556	0.382	0.190	0.581	0.840	0.564	0.094	0.159	0.323	0.166	0.025	0.976
46	0.164	0.540	0.371	0.182	0.559	0.827	0.544	0.087	0.147	0.309	0.159	0.020	0.980
47	0.152	0.524	0.360	0.171	0.537	0.814	0.532	0.081	0.113	0.295	0.152	0.017	0.983
48	0.142	0.508	0.352	0.164	0.515	0.800	0.516	0.075	0.104	0.281	0.142	0.014	0.986
49	0.131	0.492	0.341	0.156	0.493	0.786	0.500	0.069	0.095	0.271	0.136	0.011	0.989
50	0.121	0.496	0.330	0.147	0.471	0.771	0.488	0.064	0.087	0.258	0.129	0.009	0.991
51	0.113	0.460	0.319	0.140	0.449	0.755	0.472	0.059	0.078	0.245	0.123	0.007	0.993
52	0.104	0.444	0.309	0.134	0.427	0.739	0.452	0.055	0.071	0.236	0.117	0.006	0.994
53	0.097	0.429	0.298	0.127	0.406	0.723	0.437	0.050	0.063	0.224	0.111	0.004	0.996
54	0.089	0.417	0.288	0.121	0.384	0.705	0.421	0.046	0.057	0.212	0.106	0.003	0.997
55	0.081	0.398	0.281	0.115	0.363	0.688	0.405	0.043	0.051	0.203	0.102	0.003	0.997
56	0.075	0.382	0.271	0.109	0.343	0.670	0.394	0.039	0.046	0.195	0.097	0.002	0.998
57	0.068	0.367	0.261	0.104	0.323	0.651	0.375	0.036	0.041	0.184	0.092	0.006	0.994
58	0.063	0.356	0.252	0.099	0.303	0.633	0.363	0.033	0.036	0.176	0.087	0.001	0.999
59	0.057	0.341	0.242	0.095	0.284	0.614	0.348	0.031	0.032	0.169	0.084	0.010	0.990
60	0.052	0.326	0.233	0.090	0.265	0.594	0.334	0.028	0.028	0.161	0.079	0.001	0.999
61		0.312	0.224		0.247	0.574	0.319	0.026	0.025				
62		0.298	0.218		0.230	0.554	0.305	0.024	0.022				
63		0.284	0.209		0.213	0.534	0.291	0.022	0.019				
64		0.271	0.201			0.514	0.278		0.017				
65		0.257 9	0.1922			0.493 7	0.264 4		0.015				

Lampiran 4

Perhitungan interval waktu pencegahan

Komponen bearing screen

t	F(t)	R(t)	$T_p \cdot R(t)$	$T_f \cdot F(t)$	M(t)	D(t)
11	0.264	0.736	0.963767	0.346233	93.3030647	0.038458
12	0.281	0.719	0.942021	0.367979	87.7892488	0.037862
13	0.298	0.702	0.91962	0.39038	82.7516779	0.037326
14	0.312	0.688	0.90128	0.40872	79.0384615	0.036796
15	0.330	0.670	0.877831	0.432169	74.7499242	0.036367
16	0.348	0.652	0.853858	0.456142	70.821367	0.035990
17	0.363	0.637	0.834339	0.475661	67.9151749	0.035600
18	0.382	0.618	0.80958	0.50042	64.5549738	0.035316
19	0.397	0.603	0.789406	0.520594	62.0533468	0.035009
20	0.416	0.584	0.764647	0.545353	59.2361278	0.034800
21	0.436	0.564	0.738316	0.571684	56.507791	0.034651
22	0.452	0.548	0.717618	0.592382	54.5333923	0.034454
23	0.472	0.528	0.69168	0.61832	52.2457627	0.034371
24	0.488	0.512	0.67072	0.63928	50.5327869	0.034241
25	0.504	0.496	0.649891	0.660109	48.9382814	0.034139
26	0.524	0.476	0.623691	0.686309	47.0700515	0.034160
27	0.540	0.460	0.602862	0.707138	45.6835865	0.034119
28	0.560	0.440	0.576924	0.733076	44.0671909	0.034203
29	0.579	0.421	0.551248	0.758752	42.5759669	0.034317
30	0.595	0.405	0.530812	0.779188	41.4593141	0.034360
31	0.614	0.386	0.50566	0.80434	40.1628664	0.034532
32	0.629	0.371	0.485617	0.824383	39.1863976	0.034626
33	0.648	0.352	0.46112	0.84888	38.0555556	0.034853
34	0.666	0.334	0.437016	0.872984	37.0048019	0.035109
35	0.681	0.319	0.418152	0.891848	36.2220917	0.035270
36	0.698	0.302	0.395096	0.914904	35.3092784	0.035571
37	0.712	0.288	0.377018	0.932982	34.6251053	0.035774
38	0.729	0.271	0.35501	0.95499	33.8271605	0.036120
39	0.745	0.255	0.333657	0.976343	33.0873474	0.036487
40	0.758	0.242	0.31702	0.99298	32.5329815	0.036746

Komponen couchroll 5

t	F(t)	R(t)	Tp*R(t)	Tf*F(t)	M(t)	D(t)
20	0.129	0.871	1.2191	0.1809	375.386997	0.020797
21	0.138	0.862	1.2071	0.1929	351.959361	0.020586
22	0.147	0.853	1.1945	0.2055	330.381471	0.020387
23	0.156	0.844	1.1813	0.2187	310.49936	0.020200
24	0.166	0.834	1.1676	0.2324	292.168675	0.020024
25	0.176	0.824	1.1535	0.2465	275.411698	0.019859
26	0.187	0.813	1.1386	0.2614	259.77504	0.019706
27	0.198	0.802	1.1234	0.2766	245.445344	0.019563
28	0.209	0.791	1.1075	0.2925	232.168502	0.019431
29	0.221	0.779	1.0912	0.3088	219.854941	0.019310
30	0.233	0.767	1.0744	0.3256	208.512468	0.019199
31	0.245	0.755	1.0570	0.3430	197.959184	0.019098
32	0.258	0.742	1.0391	0.3609	188.130334	0.019009
33	0.271	0.729	1.0207	0.3793	179.032853	0.018929
34	0.281	0.719	1.0067	0.3933	172.659309	0.018830
35	0.298	0.702	0.9828	0.4172	162.751678	0.018800
36	0.309	0.692	0.9681	0.4319	157.212318	0.018718
37	0.323	0.677	0.9482	0.4518	150.294391	0.018677
38	0.337	0.663	0.9279	0.4721	143.831554	0.018645
39	0.352	0.648	0.9073	0.4927	137.823245	0.018623
40	0.371	0.629	0.8810	0.5190	130.833558	0.018649
41	0.382	0.618	0.8652	0.5348	126.963351	0.018608
42	0.402	0.598	0.8373	0.5627	120.676785	0.018662
43	0.413	0.587	0.8219	0.5781	117.461855	0.018631
44	0.429	0.572	0.8001	0.5999	113.185531	0.018655
45	0.444	0.556	0.7780	0.6220	109.160477	0.018690
46	0.460	0.540	0.7559	0.6441	105.411867	0.018733
47	0.476	0.524	0.7336	0.6664	101.890756	0.018785
48	0.492	0.508	0.7112	0.6888	98.5772358	0.018847
49	0.508	0.492	0.6889	0.7111	95.4912384	0.018916
50	0.504	0.496	0.6945	0.7055	96.2492558	0.018740

Komponen HP shower

t	F(t)	R(t)	Tp*R(t)	Tf*F(t)	M(t)	D(t)
20	0.341	0.659	0.692055	0.35795	98.2692872	0.021998
21	0.352	0.648	0.680505	0.36950	95.1974993	0.021802
22	0.359	0.641	0.67263	0.37737	93.2109071	0.021586
23	0.371	0.629	0.660765	0.38924	90.3695711	0.021418
24	0.382	0.618	0.6489	0.40110	87.6963351	0.021263
25	0.394	0.607	0.636825	0.41318	85.133418	0.021121
26	0.405	0.595	0.624645	0.42536	82.6956307	0.020993
27	0.417	0.583	0.61236	0.43764	80.3742802	0.020876
28	0.429	0.572	0.600075	0.44993	78.1796966	0.020771
29	0.436	0.564	0.59178	0.45822	76.7644363	0.020631
30	0.448	0.552	0.57939	0.47061	74.7434181	0.020546
31	0.460	0.540	0.566895	0.48311	72.8102586	0.020473
32	0.472	0.528	0.5544	0.49560	70.9745763	0.02041
33	0.484	0.516	0.5418	0.50820	69.214876	0.020358
34	0.496	0.504	0.52919	0.52081	67.5389609	0.020315
35	0.504	0.496	0.520905	0.52910	66.4814447	0.020226
36	0.516	0.484	0.508305	0.54170	64.9350649	0.020201
37	0.528	0.472	0.495705	0.55430	63.4589884	0.020185
38	0.540	0.460	0.48321	0.56679	62.0600222	0.020178
39	0.552	0.448	0.470715	0.57929	60.7214066	0.020179
40	0.564	0.437	0.458325	0.59168	59.4498669	0.020188
41	0.571	0.429	0.45003	0.59997	58.6279314	0.020145
42	0.583	0.417	0.437745	0.61226	57.451552	0.020169
43	0.595	0.405	0.42546	0.62454	56.3214526	0.020203
44	0.606	0.394	0.41328	0.63672	55.2440633	0.020244
45	0.618	0.382	0.401205	0.64880	54.2158925	0.020292
46	0.629	0.371	0.389235	0.66077	53.2337518	0.020348
47	0.641	0.360	0.377475	0.67253	52.3028884	0.02041
48	0.648	0.352	0.3696	0.68040	51.6975309	0.02041
49	0.659	0.341	0.35805	0.69195	50.8345979	0.020484
50	0.670	0.330	0.3465	0.70350	50	0.020568
51	0.681	0.319	0.33516	0.71484	49.2068155	0.020657
52	0.691	0.309	0.32403	0.72597	48.4524154	0.020752
53	0.702	0.298	0.313005	0.73700	47.7275965	0.020854
54	0.712	0.288	0.30219	0.74781	47.0373491	0.020962
55	0.719	0.281	0.29505	0.75495	46.5924896	0.020998

Komponen Longfelt

t	F(t)	R(t)	Tp*R(t)	Tf*F(t)	M(t)	D(t)
16	0.2179	0.7821	1.008909	0.281091	145.663148	0.028325
17	0.245	0.755	0.97395	0.31605	129.55102	0.028126
18	0.2775	0.7225	0.932025	0.357975	114.378378	0.028022
19	0.3085	0.6915	0.892035	0.397965	102.884927	0.027941
20	0.3372	0.6628	0.855012	0.434988	94.1281139	0.02787
21	0.3669	0.6331	0.816699	0.473301	86.5085854	0.027847
22	0.3935	0.6065	0.782385	0.507615	80.660737	0.027818
23	0.4207	0.5793	0.747297	0.542703	75.4456858	0.027829
24	0.4483	0.5517	0.711693	0.578307	70.800803	0.027879
25	0.476	0.524	0.67596	0.61404	66.6806723	0.027964
26	0.488	0.512	0.66048	0.62952	65.0409836	0.027837
27	0.5199	0.4801	0.619329	0.670671	61.050202	0.028048
28	0.5437	0.4563	0.588627	0.701373	58.3777819	0.028162
29	0.5674	0.4326	0.558054	0.731946	55.9393726	0.028305
30	0.587	0.413	0.53277	0.75723	54.0715503	0.028402
31	0.614	0.386	0.49794	0.79206	51.6938111	0.028669
32	0.6293	0.3707	0.478203	0.811797	50.4369935	0.028735
33	0.648	0.352	0.45408	0.83592	48.9814815	0.028894
34	0.6664	0.3336	0.430344	0.859656	47.6290516	0.029072

Komponen Stretcher Longfelt

t	F(t)	R(t)	Tp*R(t)	Tf*F(t)	M(t)	D(t)
35	0.220	0.780	1.154612	0.32539	222.87	0.019027
36	0.237	0.763	1.12866	0.35134	206.41	0.01899
37	0.256	0.744	1.101779	0.37822	191.74	0.018968
38	0.274	0.726	1.074017	0.40598	178.63	0.018961
39	0.294	0.706	1.04543	0.43457	166.88	0.018967
40	0.313	0.687	1.01608	0.46392	156.32	0.018989
41	0.334	0.666	0.986031	0.49397	146.81	0.019024
42	0.354	0.646	0.955355	0.52464	138.23	0.019074
45	0.419	0.581	0.860339	0.61966	117.03	0.019311
46	0.441	0.559	0.827947	0.65205	111.22	0.019419
47	0.463	0.537	0.795341	0.68466	105.92	0.019541
48	0.485	0.515	0.762611	0.71739	101.09	0.019677
49	0.507	0.493	0.729848	0.75015	96.67	0.019827
50	0.529	0.471	0.697145	0.78286	92.64	0.019991

Komponen Wire 1

t	F(t)	R(t)	Tp*R(t)	Tf*F(t)	M(t)	D(t)
50	0.229	0.77070	1.9576	0.5824	14.7715	0.05713
51	0.245	0.75517	1.9181	0.6219	15.7719	0.05655
52	0.261	0.73910	1.8773	0.6627	16.8069	0.05600
53	0.277	0.72252	1.8352	0.7048	17.8753	0.05547
54	0.295	0.70544	1.7918	0.7482	18.9757	0.05495
55	0.312	0.68788	1.7472	0.7928	20.1065	0.05445
56	0.330	0.66989	1.7015	0.8385	21.2660	0.05396
57	0.349	0.65147	1.6547	0.8853	22.4522	0.05347
58	0.367	0.63267	1.6070	0.9330	23.6631	0.05300
59	0.386	0.61353	1.5584	0.9816	24.8964	0.05252
60	0.406	0.59408	1.5090	1.0310	26.1495	0.05205
61	0.426	0.57436	1.4589	1.0811	27.4198	0.05158
62	0.446	0.55441	1.4082	1.1318	28.7047	0.05110
63	0.466	0.53429	1.3571	1.1829	30.0012	0.05063
64	0.486	0.51403	1.3056	1.2344	31.3063	0.05015
65	0.506	0.49368	1.2540	1.2860	32.6170	0.04966

Komponen Wire 9

t	F(t)	R(t)	Tp*R(t)	Tf*F(t)	M(t)	D(t)
35	0.2911	0.7089	1.3965	0.5735	158.0213	0.027067
36	0.3050	0.6950	1.3692	0.6009	150.8197	0.026990
37	0.3191	0.6809	1.3414	0.6286	144.1554	0.026926
38	0.3335	0.6665	1.3130	0.6570	137.9310	0.026877
39	0.3482	0.6518	1.2840	0.6860	132.1080	0.026843
40	0.3631	0.6369	1.2547	0.7153	126.6869	0.026822
41	0.3782	0.6218	1.2249	0.7451	121.6288	0.026816
42	0.3935	0.6065	1.1948	0.7752	116.8996	0.026824
43	0.4090	0.5910	1.1643	0.8057	112.4694	0.026845
44	0.4246	0.5754	1.1335	0.8365	108.3373	0.026880
45	0.4364	0.5636	1.1103	0.8597	105.4079	0.026864
46	0.4562	0.5438	1.0713	0.8987	100.8330	0.026992
47	0.4682	0.5318	1.0476	0.9224	98.2486	0.026999
48	0.4840	0.5160	1.0165	0.9535	95.0413	0.027084
49	0.5000	0.5000	0.9850	0.9850	92.0000	0.027184

Komponen Gearbox Dryer

t	F(t)	R(t)	Tp*R(t)	Tf*F(t)	M(t)	D(t)
10	0.237	0.763	2.61655	0.81345	94.789338	0.102270753
11	0.267	0.733	2.514397	0.915603	84.213812	0.100960554
12	0.297	0.703	2.412305	1.017695	75.765701	0.099855748
13	0.326	0.674	2.310774	1.119226	68.892617	0.0989384
14	0.356	0.644	2.21024	1.21976	63.214405	0.098192491
15	0.385	0.615	2.111078	1.318922	58.461665	0.09760368
16	0.413	0.587	2.013609	1.416391	54.438645	0.097159077
17	0.441	0.559	1.91811	1.51189	51.000001	0.096847059
18	0.468	0.532	1.824812	1.605188	48.035756	0.096657088
19	0.494	0.506	1.733911	1.696089	45.461303	0.096579572
20	0.520	0.480	1.645567	1.784433	43.210578	0.09660573
21	0.545	0.455	1.559907	1.870093	41.231316	0.09672748
22	0.569	0.431	1.477033	1.952967	39.481669	0.096937344
23	0.593	0.407	1.39702	2.03298	37.927769	0.097228363
24	0.615	0.385	1.31992	2.11008	36.541938	0.097594025
25	0.637	0.363	1.245766	2.184234	35.30135	0.098028206
26	0.658	0.342	1.174572	2.255428	34.187029	0.098525118
27	0.677	0.323	1.106334	2.323666	33.183076	0.099079262
28	0.696	0.304	1.041036	2.388964	32.276077	0.099685397
29	0.715	0.285	0.978648	2.451352	31.454642	0.100338509
30	0.732	0.268	0.91913	2.51087	30.70904	0.101033784
31	0.749	0.251	0.862432	2.567568	30.030911	0.101766594
32	0.764	0.236	0.808495	2.621505	29.413032	0.10253248
33	0.779	0.221	0.757254	2.672746	28.849134	0.103327143
34	0.793	0.207	0.708638	2.721362	28.33375	0.104146435
35	0.807	0.193	0.662569	2.767431	27.862089	0.104986359
36	0.820	0.180	0.618969	2.811031	27.429938	0.105843063
37	0.832	0.168	0.577754	2.852246	27.033576	0.106712845
38	0.843	0.157	0.538839	2.891161	26.669704	0.107592152
39	0.854	0.146	0.502138	2.927862	26.33539	0.108477585
40	0.864	0.136	0.467561	2.962439	26.028014	0.109365902

Komponen Bearing Dryer

t	F(t)	R(t)	$T_p \cdot R(t)$	$T_f \cdot F(t)$	M(t)	D(t)
20	0.4061	0.5939	4.2820	2.9280	59.714356	0.119414
21	0.4246	0.5754	4.1486	3.0614	57.112577	0.119009
22	0.4482	0.5518	3.9785	3.2315	54.10531	0.118899
23	0.4681	0.5319	3.8350	3.3750	51.80517	0.118715
24	0.488	0.5120	3.6915	3.5185	49.692623	0.118609
25	0.492	0.508	3.6627	3.5473	49.288618	#NAME?
26	0.5279	0.4721	3.4038	3.8062	45.93673	0.118635
27	0.5517	0.4483	3.2322	3.9778	43.955048	0.118969
28	0.5714	0.4286	3.0902	4.1198	42.439622	0.119172
29	0.5948	0.4052	2.9215	4.2885	40.770007	0.119666
30	0.614	0.386	2.7831	4.4269	39.495114	0.120007
31	0.633	0.367	2.6461	4.5639	38.309637	0.120414
32	0.6554	0.3446	2.4846	4.7254	37.000305	0.121121
33	0.6736	0.3264	2.3533	4.8567	36.000594	0.121644
34	0.6914	0.3086	2.2250	4.9850	35.073763	0.122219
35	0.7122	0.2878	2.0750	5.1350	34.049424	0.123094

Komponen Canvas Roll

t	F(t)	R(t)	$T_p \cdot R(t)$	$T_f \cdot F(t)$	M(t)	D(t)
35	0.5398	0.4602	1.095276	1.28472	75.435346	0.04019795
36	0.5159	0.4841	1.152158	1.22784	78.930025	0.039320905
37	0.4641	0.5359	1.275442	1.10456	87.739711	0.037820821
38	0.4443	0.5557	1.322566	1.05743	91.649786	0.037062068
39	0.4246	0.5754	1.369452	1.01055	95.902025	0.036313369
40	0.4061	0.5939	1.413482	0.96652	100.27087	0.035598899
41	0.3897	0.6103	1.452514	0.92749	104.49063	0.034937164
42	0.6293	0.3707	0.882266	1.49773	64.706817	0.040566292
43	0.6443	0.3557	0.846566	1.53343	63.200372	0.040756844
44	0.659	0.341	0.81158	1.56842	61.790592	0.040961035
45	0.6772	0.3228	0.768264	1.61174	60.129947	0.041300802
46	0.6914	0.3086	0.734468	1.64553	58.894996	0.041538966
47	0.7054	0.2946	0.701148	1.67885	57.726113	0.041793833
48	0.719	0.281	0.66878	1.71122	56.634214	0.042058387
49	0.729	0.271	0.64498	1.73502	55.857339	0.0422143

Komponen Pulley TaliRope

t	F(t)	R(t)	$T_p \cdot R(t)$	$T_f \cdot F(t)$	M(t)	D(t)
20	0.4012	0.5988	1.0479	0.7021	73.579262	0.04046617
21	0.4285	0.5715	1.000125	0.749875	68.891482	0.040442323
22	0.4562	0.5438	0.95165	0.79835	64.708461	0.040477777
23	0.488	0.512	0.896	0.854	60.491803	0.040654184
24	0.492	0.508	0.889	0.861	60	0.040265059
25	0.5318	0.4682	0.81935	0.93065	55.50959	0.04072135
26	0.5556	0.4444	0.7777	0.9723	53.131749	0.040864554
27	0.5792	0.4208	0.7364	1.0136	50.966851	0.041049362
28	0.5987	0.4013	0.702275	1.047725	49.306831	0.041170271
29	0.6217	0.3783	0.662025	1.087975	47.482709	0.041429238
30	0.6405	0.3595	0.629125	1.120875	46.088993	0.041612175
31	0.659	0.341	0.59675	1.15325	44.795144	0.041825004
32	0.6736	0.3264	0.5712	1.1788	43.824228	0.041951538
33	0.6914	0.3086	0.54005	1.20995	42.695979	0.042215671
34	0.7088	0.2912	0.5096	1.2404	41.647856	0.042505854
35	0.7224	0.2776	0.4858	1.2642	40.863787	0.042697506

Komponen Rotary

t	F(t)	R(t)	$T_p \cdot R(t)$	$T_f \cdot F(t)$	M(t)	D(t)
10	0.1921	0.8079	1.518852	0.36115	107.76	0.061319678
11	0.2176	0.7824	1.470912	0.40909	95.13	0.060282687
12	0.2419	0.7581	1.425228	0.45477	85.57	0.05934868
13	0.2676	0.7324	1.376912	0.50309	77.35	0.058564789
14	0.2945	0.7055	1.32634	0.55366	70.29	0.05792279
15	0.3227	0.6773	1.273324	0.60668	64.15	0.057422991
16	0.3519	0.6481	1.218428	0.66157	58.82	0.057056838
17	0.3821	0.6179	1.161652	0.71835	54.17	0.056824536
18	0.4129	0.5871	1.103748	0.77625	50.13	0.056715679
19	0.4443	0.5557	1.044716	0.83528	46.59	0.056731939
20	0.48	0.52	0.9776	0.90240	43.13	0.057004245
21	0.492	0.508	0.95504	0.92496	42.07	0.056544755
22	0.5398	0.4602	0.865176	1.01482	38.35	0.05748462
23	0.5714	0.4286	0.805768	1.07423	36.23	0.057957075
24	0.6064	0.3936	0.739968	1.14003	34.14	0.058701571
25	0.633	0.367	0.68996	1.19004	32.70	0.059203275
26	0.6664	0.3336	0.627168	1.25283	31.06	0.06015307
27	0.6949	0.3051	0.573588	1.30641	29.79	0.061003904

Komponen Bodyrotary

t	F(t)	R(t)	Tp*R(t)	Tf*F(t)	M(t)	D(t)
10	0.0694	0.9306	1.982178	0.14782	358.2	0.058684153
11	0.0968	0.9032	1.923816	0.20618	256.8	0.057684183
12	0.1292	0.8708	1.854804	0.27520	192.4	0.056891633
13	0.1635	0.8365	1.781745	0.34826	152.0	0.056253219
14	0.2032	0.7968	1.697184	0.43282	122.3	0.055839267
15	0.2419	0.7581	1.614753	0.51525	102.8	0.055524419
16	0.2909	0.7091	1.510383	0.61962	85.5	0.055561932
17	0.3227	0.6773	1.442649	0.68735	77.0	0.055318784
18	0.3631	0.6369	1.356597	0.77340	68.5	0.055390569
19	0.4012	0.5988	1.275444	0.85456	62.0	0.05551617
20	0.4403	0.5597	1.192161	0.93784	56.5	0.055782527
21	0.5239	0.4761	1.014093	1.11591	47.5	0.057586088
22	0.5119	0.4881	1.039653	1.09035	48.6	0.056456444
23	0.5437	0.4563	0.971919	1.15808	45.7	0.056822881
24	0.5753	0.4247	0.904611	1.22539	43.2	0.057284551
25	0.6064	0.3936	0.838368	1.29163	41.0	0.057833288
26	0.6368	0.3632	0.773616	1.35638	39.0	0.05846316
27	0.6627	0.3373	0.718449	1.41155	37.5	0.05900751
28	0.6879	0.3121	0.664773	1.46523	36.1	0.059615772
29	0.7122	0.2878	0.613014	1.51699	34.9	0.060278128
30	0.7323	0.2677	0.570201	1.55980	33.9	0.06082065
31	0.758	0.242	0.51546	1.61454	32.8	0.06175345
32	0.7733	0.2267	0.482871	1.64713	32.1	0.062199951
33	0.791	0.209	0.44517	1.68483	31.4	0.062855962
34	0.8051	0.1949	0.415137	1.71486	30.9	0.063361554
35	0.8212	0.1788	0.380844	1.74916	30.3	0.064064004

Lampiran 5
Tabel Z Distribusi Normal

z	0	1	2	3	4	5	6	7	8	9
- 0.0	0.5000	0.4960	0.4920	0.4880	0.4840	0.4801	0.4761	0.4721	0.4681	0.4641
- 0.1	0.4602	0.4562	0.4522	0.4483	0.4443	0.4404	0.4364	0.4325	0.4286	0.4247
- 0.2	0.4207	0.4168	0.4129	0.4090	0.4052	0.4013	0.3974	0.3936	0.3897	0.3859
- 0.3	0.3821	0.3783	0.3745	0.3707	0.3669	0.3632	0.3594	0.3557	0.3520	0.3483
- 0.4	0.3446	0.3409	0.3372	0.3336	0.3300	0.3264	0.3228	0.3192	0.3156	0.3121
- 0.5	0.3085	0.3050	0.3015	0.2981	0.2946	0.2912	0.2877	0.2843	0.2810	0.2776
- 0.6	0.2743	0.2709	0.2676	0.2643	0.2611	0.2578	0.2546	0.2514	0.2483	0.2451
- 0.7	0.2420	0.2389	0.2358	0.2327	0.2296	0.2266	0.2236	0.2206	0.2177	0.2148
- 0.8	0.2119	0.2090	0.2061	0.2033	0.2005	0.1977	0.1949	0.1922	0.1894	0.1867
- 0.9	0.1841	0.1814	0.1788	0.1762	0.1736	0.1711	0.1685	0.1660	0.1635	0.1611
- 1.0	0.1587	0.1562	0.1539	0.1515	0.1492	0.1469	0.1446	0.1423	0.1401	0.1379
- 1.1	0.1357	0.1335	0.1314	0.1292	0.1271	0.1251	0.1230	0.1210	0.1190	0.1170
- 1.2	0.1151	0.1131	0.1112	0.1093	0.1075	0.1056	0.1038	0.1020	0.1003	0.0985
- 1.3	0.0968	0.0951	0.0934	0.0918	0.0901	0.0885	0.0869	0.0853	0.0838	0.0823
- 1.4	0.0808	0.0793	0.0778	0.0764	0.0749	0.0735	0.0721	0.0708	0.0694	0.0681
- 1.5	0.0668	0.0655	0.0643	0.0630	0.0618	0.0606	0.0594	0.0582	0.0571	0.0559
- 1.6	0.0548	0.0537	0.0526	0.0516	0.0505	0.0495	0.0485	0.0475	0.0465	0.0455
- 1.7	0.0446	0.0436	0.0427	0.0418	0.0409	0.0401	0.0392	0.0384	0.0375	0.0367
- 1.8	0.0359	0.0351	0.0344	0.0336	0.0329	0.0322	0.0314	0.0307	0.0301	0.0294
- 1.9	0.0287	0.0281	0.0274	0.0268	0.0262	0.0256	0.0250	0.0244	0.0239	0.0233
- 2.0	0.0228	0.0222	0.0217	0.0212	0.0207	0.0202	0.0197	0.0192	0.0188	0.0183
- 2.1	0.0179	0.0174	0.0170	0.0166	0.0162	0.0158	0.0154	0.0150	0.0146	0.0143
- 2.2	0.0139	0.0136	0.0132	0.0129	0.0125	0.0122	0.0119	0.0116	0.0113	0.0110
- 2.3	0.0107	0.0104	0.0102	0.0099	0.0096	0.0094	0.0091	0.0089	0.0087	0.0084
- 2.4	0.0082	0.0080	0.0078	0.0075	0.0073	0.0071	0.0069	0.0068	0.0066	0.0064
- 2.5	0.0062	0.0060	0.0059	0.0057	0.0055	0.0054	0.0052	0.0051	0.0049	0.0048

- 2.6	0.0047	0.0045	0.0044	0.0043	0.0041	0.0040	0.0039	0.0038	0.0037	0.0036
- 2.7	0.0035	0.0034	0.0033	0.0032	0.0031	0.0030	0.0029	0.0028	0.0027	0.0026
- 2.8	0.0026	0.0025	0.0024	0.0023	0.0023	0.0022	0.0021	0.0021	0.0020	0.0019
- 2.9	0.0019	0.0018	0.0018	0.0017	0.0016	0.0016	0.0015	0.0015	0.0014	0.0014
- 3.0	0.0013	0.0013	0.0013	0.0012	0.0012	0.0011	0.0011	0.0011	0.0010	0.0010
- 3.1	0.0010	0.0009	0.0009	0.0009	0.0008	0.0008	0.0008	0.0008	0.0007	0.0007
- 3.2	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0005	0.0005	0.0005
- 3.3	0.0005	0.0005	0.0005	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0003
- 3.4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002
- 3.5	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
- 3.6	0.0002	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

z	0	1	2	3	4	5	6	7	8	9
0.0	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
0.1	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
0.2	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
0.3	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
0.4	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
0.5	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
0.6	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
0.7	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
0.8	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
0.9	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
1.0	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
1.2	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
1.3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1.5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1.6	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
1.7	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
1.8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
1.9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2.0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
2.2	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890

2.3	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2.4	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
2.5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2.6	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964
2.7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0.4974
2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0.4986
3.0	0.4987	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4990
3.1	0.4990	0.4991	0.4991	0.4991	0.4992	0.4992	0.4992	0.4992	0.4993	0.4993
3.2	0.4993	0.4993	0.4994	0.4994	0.4994	0.4994	0.4994	0.4995	0.4995	0.4995
3.3	0.4995	0.4995	0.4995	0.4996	0.4996	0.4996	0.4996	0.4996	0.4996	0.4997
3.4	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4998
3.5	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998
3.6	0.4998	0.4998	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999
3.7	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999
3.8	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999

z	0	1	2	3	4	5	6	7	8	9
0.0	0.3989	0.3989	0.3989	0.3988	0.3986	0.3984	0.3982	0.3980	0.3977	0.3973
0.1	0.3970	0.3965	0.3961	0.3956	0.3951	0.3945	0.3939	0.3932	0.3925	0.3918
0.2	0.3910	0.3902	0.3894	0.3885	0.3876	0.3867	0.3857	0.3847	0.3836	0.3825
0.3	0.3814	0.3802	0.3790	0.3778	0.3765	0.3752	0.3739	0.3725	0.3712	0.3697
0.4	0.3683	0.3668	0.3653	0.3637	0.3621	0.3605	0.3589	0.3572	0.3555	0.3538
0.5	0.3521	0.3503	0.3485	0.3467	0.3448	0.3429	0.3410	0.3391	0.3372	0.3352
0.6	0.3332	0.3312	0.3292	0.3271	0.3251	0.3230	0.3209	0.3187	0.3166	0.3144
0.7	0.3123	0.3101	0.3079	0.3056	0.3034	0.3011	0.2989	0.2966	0.2943	0.2920
0.8	0.2897	0.2874	0.2850	0.2827	0.2803	0.2780	0.2756	0.2732	0.2709	0.2685
0.9	0.2661	0.2637	0.2613	0.2589	0.2565	0.2541	0.2516	0.2492	0.2468	0.2444
1.0	0.2420	0.2396	0.2371	0.2347	0.2323	0.2299	0.2275	0.2251	0.2227	0.2203
1.1	0.2179	0.2155	0.2131	0.2107	0.2083	0.2059	0.2036	0.2012	0.1989	0.1965
1.2	0.1942	0.1919	0.1895	0.1872	0.1849	0.1826	0.1804	0.1781	0.1758	0.1736
1.3	0.1714	0.1691	0.1669	0.1647	0.1626	0.1604	0.1582	0.1561	0.1539	0.1518
1.4	0.1497	0.1476	0.1456	0.1435	0.1415	0.1394	0.1374	0.1354	0.1334	0.1315
1.5	0.1295	0.1276	0.1257	0.1238	0.1219	0.1200	0.1182	0.1163	0.1145	0.1127
1.6	0.1109	0.1092	0.1074	0.1057	0.1040	0.1023	0.1006	0.0989	0.0973	0.0957
1.7	0.0940	0.0925	0.0909	0.0893	0.0878	0.0863	0.0848	0.0833	0.0818	0.0804
1.8	0.0790	0.0775	0.0761	0.0748	0.0734	0.0721	0.0707	0.0694	0.0681	0.0669
1.9	0.0656	0.0644	0.0632	0.0620	0.0608	0.0596	0.0584	0.0573	0.0562	0.0551
2.0	0.0540	0.0529	0.0519	0.0508	0.0498	0.0488	0.0478	0.0468	0.0459	0.0449


Lampiran 5

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

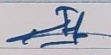

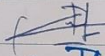
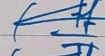


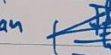
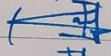

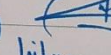
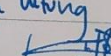


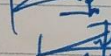


Lampiran ^

Kartu Bimbingan


JURNAL BIMBINGAN TUGAS AKHIR
PRODI TEKNIK INDUSTRI
SEMESTER GASAL 2022/2023

Nama : IRSYAAD RAMADHAN
 NBI : 1911900147
 Judul Penelitian : ANALISIS PENGGANTIAN dan PERAWATAN BAGIAN WIRE dan DRYER PADA UNIT PAPER MACHINE DENGAN METODE RELIABILITY CENTERED MAINTENANCE (RCM)
 Dosen Pembimbing: WIWIN WIDIASIH, ST., MT.



No.	Tanggal	Materi Bimbingan	Catatan Pembimbing	Paraf Pembimbing
1.	2/2/2023	topik TA	- data ditambah - gambar mesin, produk	
2.	8/2/2023	Bab 1	* ket gambar * sinkron rumusan mslh & tujuan	
3	9/2/2023	Bab 2	* penelitian terdahulu, narasi * penalaran Rumus	
4	15/2/2023	Bab 2	* narasi ditambah	
5	16/2/2023	Bab 3	* metode penelitian revisi	
6	17/2/2023		daftar pustaka	
7.	9/3/2023	Bab 4	data komponen kritis, kewasaan	
8.	15/3/2023	Bab 4	proses produksi, FMEA, jareb	
9.	11/4/2023	Bab 4	plot distribusi, MTF software	
10	4/5/2023	Bab 4	hitung keandalan, MTF hitung hasil minitab MTF sama dgn hitung	
11	15/5/2023	Bab 4	hitung age replacement	
12	17/5/2023	Bab 4	penjadwalan perawatan	
13	22/5/2023	Bab 4	perbandingan reliability	
14	25/5/2023	Bab 5	penarikan simpulan	
15	29/5/2023	Bab 5	saran	
16	30/5/2023	all	abstrak	

Lampiran 8

Lembar revisi

UNIVERSITAS 17 AGUSTUS 1945 SERABAYA
FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK INDUSTRI

REVISI SIDANG TUGAS AKHIR

NAMA : Ihsyand Ramadhani
NBI : 1411900147
JUDUL : ANALISIS PENGGANTIAN DAN PERAWATAN BAGIAN WIRE DAN DR YER PADA UNIT PAPER MACHINE DENGAN METODE RELIABILITY CENTERED MAINTENANCE (RCM) PADA PT X
BATAS BIMBINGAN REVISI : 1 Minggu setelah Sidang

NO	URAIAN	BAB	HALAMAN	NO	URAIAN	BAB	HALAMAN
1.	Hal. 66. Tabel 4.44. perbandingan Reliability yang (dada ditambah)	1		1	Sesuaikan tugas dengan ketrampilan	1	

Telah Direvisi,
Dosen Penguji 1, *[Signature]* 19/12/23
Dr. Ir. Zainal Arif, MT

Dosen Penguji 2, *[Signature]*
Dr. Ir. I Nyoman Lokajaya, ST, MM

Surabaya, 08 Juni 2023
Mengetahui
Dosen Pembimbing,
[Signature]
Wiwim Widhasih, ST, MT

Biaografi Penulis



Irsyaad Ramadhan , Laki-Laki lahir di Mojokerto, 5 Desember 2000, Anak keempat dari orang tua Sukarman dan Supami. Penulis pertama kali memasuki pendidikan dasar formal SDN Tanjanganro 2 Mojokerto pada tahun 2007 dan lulus pada tahun 2013. Penulis melanjutkan pendidikan Sekolah Menengah Pertama di SMPN 2 Krembung Sidoarjo pada tahun 2013 dan lulus pada tahun 2016. Penulis melanjutkan pendidikan sekolah menengah Atas di SMAN 1 Krembung Sidoarjo dan lulus pada tahun 2019. Penulis terdaftar sebagai mahasiswa Universitas 17 Agustus 1945 Surabaya Fakultas Teknik Jurusan Teknik Industri dan lulus pada tahun 2019.

Dengan ketekunan dan motivasi yang besar untuk belajar dan berusaha, penulis telah menyelesaikan pekerjaan Tugas Akhir ini. Semoga dapat bermanfaat bagi penelitian selanjutnya dan pihak lainnya.