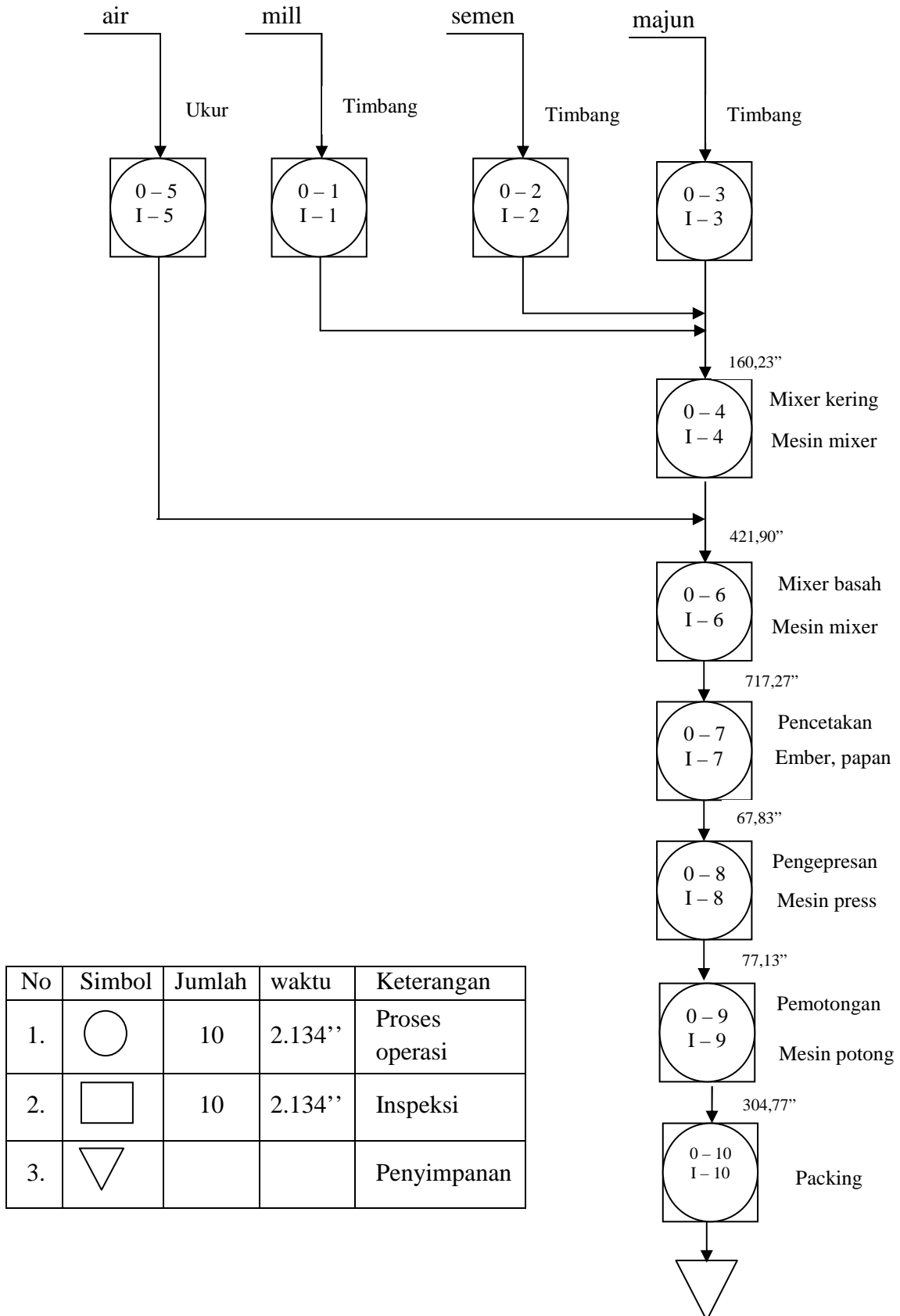


LAMPIRAN

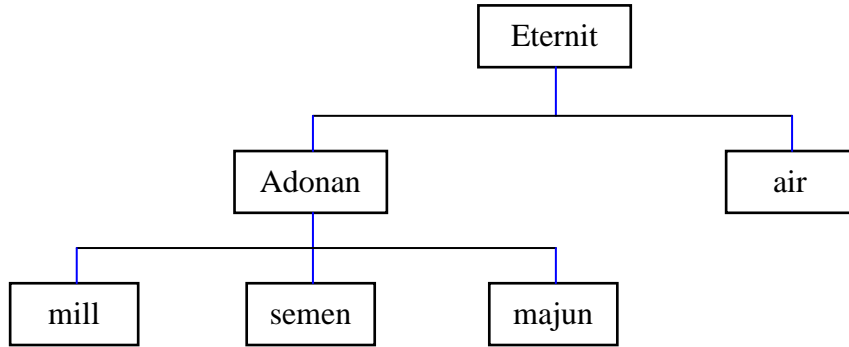
Lampiran 1

Peta Proses Operasi (OPC)



Gambar Peta proses operasi pembuatan eternit

Bill of material (BOM)



Gambar *Bill Of Material* (BOM)

Hasil Peramalan

1. Simple Average

Modules-1 Modules-2 Input Data Solution Options Help - TSFC
 Forecast Results for PT.TRI KARTIKA MEGAH
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Period	Actual	F(t)			Forecast	Error
1	1841	1841				
2	3006	2423.5			1841	-1165
3	2150	2332.333			2423.5	273.5
4	2145	2285.5			2332.333	187.3333
5	3120	2452.4			2285.5	-834.5
6	2542	2467.333			2452.4	-89.6001
7	3290	2584.857			2467.333	-822.6667
8	2720	2601.75			2584.857	-135.1428
9	3140	2661.556			2601.75	-538.25
10	2815	2676.9			2661.556	-153.4443
11	2650	2674.455			2676.9	26.8999
12	3425	2737			2674.455	-750.5454
13					2737	
14					2737	
15					2737	
16					2737	
17					2737	
18					2737	
19					2737	
20					2737	
21					2737	
22					2737	
23					2737	
24					2737	

Simple average: CPU Seconds = 0
 MAD = 452.44 MSD = 340353.1 Bias = -363.77 R-square = 0
 MAD = 452.44 MSD = 340353.1 Bias = -363.77

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2. Exponential smoothing with linear trend

Modules-1 Modules-2 Input Data Solution Options Help - TSFC
 Forecast Results for PT.TRI KARTIKA MEGAH
 10-06-2012 17:56:04 Page: 1 of 2

Period	Actual	F(t)	T(t)		Forecast	Error
1	1841	1841	0			
2	3006	2010.766	84.88293		1841	-1165
3	2150	2103.569	88.84296		2095.649	-54.35107
4	2145	2185.503	85.38852		2192.412	47.41187
5	3120	2394.625	147.2553		2270.891	-849.1086
6	2542	2541.898	147.264		2541.88	-.1196289
7	3290	2776.717	191.0417		2689.162	-600.8384
8	2720	2931.655	172.9897		2967.759	247.7588
9	3140	3109.797	175.5658		3104.645	-35.35547
10	2815	3216.82	141.2947		3285.362	470.3623
11	2650	3254.927	89.70084		3358.115	708.115
12	3425	3356.34	95.55684		3344.628	-80.37183
13					3451.897	
14					3547.454	
15					3643.011	
16					3738.568	
17					3834.125	

18					3929.681
19					4025.238
20					4120.795
21					4216.352
22					4311.908
23					4407.465
24					4503.021
Exponential smoothing with linear trend: CPU Seconds = 0 MAD = 387.16 MSD = 294198.3 Bias = -119.23 R-square = 0 Alpha = .14572 Beta = .50000 Search criterion: MAD					
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3. Linear regression

Modules-1 Modules-2 Input Data Solution Options Help - TSFC

Forecast Results for PT.TRI KARTIKA MEGAH

10-06-2012 18:01:06 Page: 1 of 2

Period	Actual	F(t)	T(t)		Forecast	Error
1	1841					
2	3006	676	1165			
3	2150	2023.333	154.5		4171	2021
4	2145	2271.5	5.6		2641.333	496.3333
5	3120	1943.3	169.7		2299.5	-820.5
6	2542	2083.133	109.7714		2961.5	419.5
7	3290	1957.857	156.75		2851.533	-438.4666
8	2720	2080.822	115.7619		3211.857	491.8572
9	3140	2076.972	116.9167		3122.678	-17.32153
10	2815	2163.2	93.4		3246.139	431.1389
11	2650	2261.491	68.82727		3190.6	540.6001
12	3425	2205.227	81.81119		3087.418	-337.5818
13					3268.773	
14					3350.584	
15					3432.395	
16					3514.207	
17					3596.018	
18					3677.829	
19					3759.64	
20					3841.452	
21					3923.263	
22					4005.074	
23					4086.885	
24					4168.697	
Linear regression: CPU Seconds = 0 MAD = 601.43 MSD = 620655.6 Bias = 278.66 R-square = 0 A = 2205.228 B = 81.811						
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4. Winter's model

Modules-1 Modules-2 Input Data Solution Options Help - TSFC

Forecast Results for PT.TRI KARTIKA MEGAH						
10-06-2012 18:02:45			Page: 1 of 2			
Period	Actual	F(t)	T(t)	I(t)	Forecast	Error
1	1841	2710.785	967.6522	.7596452		
2	3006	3323.694	648.6564	1.240355	3678.437	672.437
3	2150	3369.848	106.8669	.8497381	3017.577	867.5771
4	2145	2554.893	-722.0646	1.150262	4312.36	2167.36
5	3120	2802.931	150.2826	1.037052	1557.424	-1562.576
6	2542	2561.097	-202.3213	.9629478	3396.969	854.9695
7	3290	2788.03	183.6775	1.105932	2446.174	-843.8264
8	2720	2894.133	113.9198	.894068	2861.599	141.5991
9	3140	2918.993	33.83449	1.080333	3326.701	186.7014
10	2815	3056.07	126.6736	.9196668	2640.028	-174.9717
11	2650	2797.741	-219.5329	.9508263	3438.424	788.4236
12	3425	3182.76	324.0997	1.049174	2371.092	-1053.908
13					3334.415	
14					4019.343	
15					3950.74	
16					4699.417	
17					4567.064	
18					5379.49	
19					5183.39	
20					6059.564	
21					5799.714	
22					6739.638	
23					6416.04	
24					7419.711	
Winter's model: CPU Seconds = 0 MAD = 846.76 MSD = 1054984. Bias = 185.80 R-square = 0 Alpha = .52755 Beta = .89923 Gamma = .89799 Search criterion: MAD						
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Lampiran 3

Tabel Data Waktu Pengamatan

X (Waktu Penyelesaian)

No	Stasiun Kerja					
	I	II	III	IV	V	VI
1	160	425	60	450	75	300
2	162	420	67	455	80	310
3	160	423	65	460	78	305
4	161	430	60	450	75	300
5	158	420	60	460	75	300
6	160	420	74	440	80	310
7	163	425	70	445	75	304
8	160	420	74	460	75	306
9	160	421	60	458	80	300
10	160	419	60	462	78	300
11	161	421	73	450	75	308
12	157	425	75	460	80	309
13	158	420	70	458	78	310
14	162	420	73	450	75	305
15	160	424	72	460	75	300
16	160	425	65	440	80	300
17	160	424	68	445	79	310
18	158	424	69	443	76	310
19	159	423	70	460	77	305
20	160	425	60	440	75	300
21	160	422	65	445	75	310
22	160	423	74	460	80	304
23	159	420	73	458	75	306
24	159	420	70	455	75	310
25	161	419	60	450	78	308
26	163	419	65	455	75	306
27	163	420	70	460	80	300
28	162	419	75	450	78	300
29	160	421	70	459	77	305
30	161	420	68	457	80	302
Rata-rata	160,23	421,90	67,83	453,17	77,13	304,77
Jumlah	4.807	12.657	2.035	13.595	2.314	9.143
X ²	23.107.249	160.199.649	4.141.225	184.824.025	5.354.596	83.594.449
stdev	1,48	2,60	5,18	6,99	2,11	3,96
BKA	869,80	3711,91	1122,75	9950,77	565,21	3928,93
BKB	-549,33	-2868,11	-987,08	-9044,43	-410,94	-3319,39

Lampiran 4

Tabel Data Uji Keseragaman

X^2

No	Stasiun Kerja					
	I	II	III	IV	V	VI
1	25.600	180.625	3.600	202.500	5.625	90.000
2	26.244	176.400	4.489	207.025	6.400	96.100
3	25.600	178.929	4.225	211.600	6.084	93.025
4	25.921	184.900	3.600	202.500	5.625	90.000
5	24.964	176.400	3.600	211.600	5.625	90.000
6	25.600	176.400	5.476	193.600	6.400	96.100
7	26.569	180.625	4.900	198.025	5.625	92.416
8	25.600	176.400	5.476	211.600	5.625	93.636
9	25.600	177.241	3.600	209.764	6.400	90.000
10	25.600	175.561	3.600	213.444	6.084	90.000
11	25.921	177.241	5.329	202.500	5.625	94.864
12	24.649	180.625	5.625	211.600	6.400	95.481
13	24.964	176.400	4.900	209.764	6.084	96.100
14	26.244	176.400	5.329	202.500	5.625	93.025
15	25.600	179.776	5.184	211.600	5.625	90.000
16	25.600	180.625	4.225	193.600	6.400	90.000
17	25.600	179.776	4.624	198.025	6.241	96.100
18	24.964	179.776	4.761	196.249	5.776	96.100
19	25.281	178.929	4.900	211.600	5.929	93.025
20	25.600	180.625	3.600	193.600	5.625	90.000
21	25.600	178.084	4.225	198.025	5.625	96.100
22	25.600	178.929	5.476	211.600	6.400	92.416
23	25.281	176.400	5.329	209.764	5.625	93.636
24	25.281	176.400	4.900	207.025	5.625	96.100
25	25.921	175.561	3.600	202.500	6.084	94.864
26	26.569	175.561	4.225	207.025	5.625	93.636
27	26.569	176.400	4.900	211.600	6.400	90.000
28	26.244	175.561	5.625	202.500	6.084	90.000
29	25.600	177.241	4.900	210.681	5.929	93.025
30	25.921	176.400	4.624	208.849	6.400	91.204
Jumlah	770.307	5.340.191	138.847	6.162.265	178.620	2.786.953

Tabel Data Uji Keseragaman

X-Xbar

No	Stasiun Kerja					
	I	II	III	IV	V	VI
1	-0,23	3,10	-7,83	-3,17	-2,13	-4,77
2	1,77	-1,90	-0,83	1,83	2,87	5,23
3	-0,23	1,10	-2,83	6,83	0,87	0,23
4	0,77	8,10	-7,83	-3,17	-2,13	-4,77
5	-2,23	-1,90	-7,83	6,83	-2,13	-4,77
6	-0,23	-1,90	6,17	-13,17	2,87	5,23
7	2,77	3,10	2,17	-8,17	-2,13	-0,77
8	-0,23	-1,90	6,17	6,83	-2,13	1,23
9	-0,23	-0,90	-7,83	4,83	2,87	-4,77
10	-0,23	-2,90	-7,83	8,83	0,87	-4,77
11	0,77	-0,90	5,17	-3,17	-2,13	3,23
12	-3,23	3,10	7,17	6,83	2,87	4,23
13	-2,23	-1,90	2,17	4,83	0,87	5,23
14	1,77	-1,90	5,17	-3,17	-2,13	0,23
15	-0,23	2,10	4,17	6,83	-2,13	-4,77
16	-0,23	3,10	-2,83	-13,17	2,87	-4,77
17	-0,23	2,10	0,17	-8,17	1,87	5,23
18	-2,23	2,10	1,17	-10,17	-1,13	5,23
19	-1,23	1,10	2,17	6,83	-0,13	0,23
20	-0,23	3,10	-7,83	-13,17	-2,13	-4,77
21	-0,23	0,10	-2,83	-8,17	-2,13	5,23
22	-0,23	1,10	6,17	6,83	2,87	-0,77
23	-1,23	-1,90	5,17	4,83	-2,13	1,23
24	-1,23	-1,90	2,17	1,83	-2,13	5,23
25	0,77	-2,90	-7,83	-3,17	0,87	3,23
26	2,77	-2,90	-2,83	1,83	-2,13	1,23
27	2,77	-1,90	2,17	6,83	2,87	-4,77
28	1,77	-2,90	7,17	-3,17	0,87	-4,77
29	-0,23	-0,90	2,17	5,83	-0,13	0,23
30	0,77	-1,90	0,17	3,83	2,87	-2,77
Jumlah	0,00	0,00	0,00	0,00	0,00	0,00

Tabel Data Uji Keseragaman

 $(X - \bar{X})^2$

No	Stasiun Kerja					
	I	II	III	IV	V	VI
1	0,05	9,61	61,36	10,03	4,55	22,72
2	3,12	3,61	0,69	3,36	8,22	27,39
3	0,05	1,21	8,03	46,69	0,75	0,05
4	0,59	65,61	61,36	10,03	4,55	22,72
5	4,99	3,61	61,36	46,69	4,55	22,72
6	0,05	3,61	38,03	173,36	8,22	27,39
7	7,65	9,61	4,69	66,69	4,55	0,59
8	0,05	3,61	38,03	46,69	4,55	1,52
9	0,05	0,81	61,36	23,36	8,22	22,72
10	0,05	8,41	61,36	78,03	0,75	22,72
11	0,59	0,81	26,69	10,03	4,55	10,45
12	10,45	9,61	51,36	46,69	8,22	17,92
13	4,99	3,61	4,69	23,36	0,75	27,39
14	3,12	3,61	26,69	10,03	4,55	0,05
15	0,05	4,41	17,36	46,69	4,55	22,72
16	0,05	9,61	8,03	173,36	8,22	22,72
17	0,05	4,41	0,03	66,69	3,48	27,39
18	4,99	4,41	1,36	103,36	1,28	27,39
19	1,52	1,21	4,69	46,69	0,02	0,05
20	0,05	9,61	61,36	173,36	4,55	22,72
21	0,05	0,01	8,03	66,69	4,55	27,39
22	0,05	1,21	38,03	46,69	8,22	0,59
23	1,52	3,61	26,69	23,36	4,55	1,52
24	1,52	3,61	4,69	3,36	4,55	27,39
25	0,59	8,41	61,36	10,03	0,75	10,45
26	7,65	8,41	8,03	3,36	4,55	1,52
27	7,65	3,61	4,69	46,69	8,22	22,72
28	3,12	8,41	51,36	10,03	0,75	22,72
29	0,05	0,81	4,69	34,03	0,02	0,05
30	0,59	3,61	0,03	14,69	8,22	7,65
Jumlah	65,37	202,70	806,17	1464,17	133,47	471,37



GAMBAR PROSES MIXER KERING (STASIUN I)



GAMBAR PROSES MIXER BASAH (STASIUN II)



GAMBAR PROSES PENCETAKAN (STASIUN III)



GAMBAR PROSES PENGEPRESAN (STASIUN IV)



GAMBAR PROSES PEMOTONGAN (STASIUN V)



GAMBAR PROSES PENGEPAKAN (STASIUN VI)