

LAMPIRAN

Lampiran 1 foto dokumentasi mesin double sigma mixer



Lampiran 2 foto dokumentasi mesin simplex refining plodder



Lampiran 3 foto dokumentasi mesin triple roll mill



Lampiran 4 foto dokumentasi mesin duplex finishing plodder



Lampiran 5 foto dokumentasi mesin cutter



Lampiran 6 foto dokumentasi mesin metal detector



Lampiran 7 foto dokumentasi mesin stamper



Lampiran 8 foto fokumentasi mesin wrapper



Lampiran 9 foto dokumentasi mesin jetpack



Lampiran 10 foto dokumentasi mesin case sealer



Lampiran 12 foto dokumentasi pengisian form autonomous maintenance

reckitt																			
Daily Cleaning Inspection Lubrication Tightening Stamper																			
Running Operation: 24 hours																			
Tanggal hari ini																			
Line 1/2/3																			
Picture	Part	Standard	Activity	Method	Tool	Action if abnormal	D	S1	S2	S3	Time (min)	Start	Stop	Reset	Form	Amal	Scru	Other & Other	Remark
	Suction cup dan support suction cup bagian dalam	Suction cup tidak boleh tidak ada support bearing	X	X	X	Geas suction cup yang not OK dan kelonggaran baut yang kendur	X	X	X	X	5	✓	✓						
	Suction cup dan support suction cup bagian kiri	Suction cup tidak boleh tidak ada support bearing	X	X	X	Geas suction cup yang not OK dan kelonggaran baut yang kendur	X	X	X	X	5	✓	✓						
	Suction cup dan support suction cup bagian	Suction cup tidak boleh tidak ada support bearing	X	X	X	Geas suction cup yang not OK dan kelonggaran baut yang kendur	X	X	X	X	5	✓	✓						
Shift 2																			
	Sensor blok	Beban dari indikator / atau suction, baut pada support bearing	X	X	X	Bersihkan sensor dari debu dengan menggunakan busuk yang kendur	X	X	X	X	5	✓	✓						
	Railing inflex blok	Kotakan blok mengering dan debu, railing tidak goyang	X	X	X	Bersihkan railing dari debu dengan menggunakan busuk yang kendur	X	X	X	X	2	✓	✓						
	Sealing suction cup	Beban dari beak, tidak bocor	X	X	X	Bersihkan sealing dari korosi/debu, busukan dan pengapitan sealing yang bocor	X	X	X	X	5	✓	✓						

Lampiran 13 foto dokumentasi trail karet suction cup yang baru



Lampiran 14 perhitungan availability rate bulanan

d. September

Tanggal	<i>Machineworking times (menit)</i>	<i>Planned downtime (menit)</i>	<i>Unplanned downtime (menit)</i>	<i>Loading time (menit)</i>	<i>Operating time (menit)</i>	<i>Availability rate (%)</i>
04/09/2023	1440	160	810	1280	470	36.69%
05/09/2023	1440	170	626	1270	644	50.69%
06/09/2023	1440	40	433	1400	967	69.05%
07/09/2023	960	30	183	930	747	80.35%
08/09/2023	1440	140	500	1300	800	61.52%
09/09/2023	900	90	320	810	490	60.52%
11/09/2023	1440	60	341	1380	1039	75.27%
12/09/2023	1440	150	400	1290	890	69.00%
13/09/2023	1440	0	289	1440	1151	79.93%
14/09/2023	1440	130	566	1310	744	56.76%
15/09/2023	1440	60	208	1380	1172	84.94%
22/09/2023	1440	40	565	1400	835	59.63%
25/09/2023	480	40	180	440	260	58.98%
Total	16740	1110	5423	15630	10207	64.87%

e. Oktober

Tanggal	<i>Machineworking times (menit)</i>	<i>Planned downtime (menit)</i>	<i>Unplanned downtime (menit)</i>	<i>Loading time (menit)</i>	<i>Operating time (menit)</i>	<i>Availability rate (%)</i>
2/10/2023	1440	470	598	970	372	38.33%
3/10/2023	1440	30	518	1410	892	63.23%
4/10/2023	1440	111	471	1329	858	64.54%
5/10/2023	1440	375	602	1065	463	43.50%
6/10/2023	1440	35	247	1405	1158	82.45%
7/10/2023	1440	180	762	1260	498	39.56%
9/10/2023	1440	90	691	1350	659	48.84%

10/10/2023	1440	335	647	1105	458	41.43%
11/10/2023	1440	35	428	1405	977	69.54%
12/10/2023	1440	100	347	1340	993	74.08%
13/10/2023	1440	35	331	1405	1074	76.41%
14/10/2023	1440	140	560	1300	740	56.91%
16/10/2023	1440	140	425	1300	875	67.29%
17/10/2023	1440	145	416	1295	879	67.91%
18/10/2023	1440	20	299	1420	1121	78.97%
19/10/2023	1440	0	154	1440	1286	89.31%
20/10/2023	1440	130	252	1310	1058	80.76%
21/10/2023	1440	297	531	1143	612	53.56%
23/10/2023	1440	10	201	1430	1229	85.92%
24/10/2023	1440	20	174	1420	1246	87.71%
25/10/2023	1440	100	382	1340	958	71.50%
26/10/2023	1440	25	198	1415	1217	86.02%
27/10/2023	1440	275	502	1165	663	56.92%
28/10/2023	780	130	279	650	371	57.13%
31/10/2023	960	20	292	940	648	68.93%
Total	34860	3248	10306	31612	21306	66.03%

f. November

Tanggal	<i>Machineworking times</i> (menit)	<i>Planned downtime</i> (menit)	<i>Unplanned downtime</i> (menit)	<i>Loading time</i> (menit)	<i>Operating time</i> (menit)	<i>Availability rate</i> (%)
01/11/2023	1440	55	430	1385	955	68.93%
02/11/2023	1440	100	390	1340	950	70.91%
03/11/2023	1440	370	684	1070	386	36.12%
06/11/2023	1440	40	449	1400	951	67.90%
07/11/2023	1440	20	218	1420	1202	84.66%
08/11/2023	1440	204	381	1236	855	69.16%
09/11/2023	1440	135	311	1305	994	76.15%
10/11/2023	1440	40	249	1400	1151	82.20%
11/11/2023	1440	175	491	1265	774	61.19%
13/11/2023	1440	140	435	1300	865	66.51%
14/11/2023	1440	130	598	1310	712	54.32%
15/11/2023	1440	25	449	1415	966	68.27%
16/11/2023	1440	110	474	1330	856	64.32%
17/11/2023	1440	40	374	1400	1026	73.28%
18/11/2023	480	90	201	390	189	48.43%
20/11/2023	1440	280	818	1160	342	29.49%
21/11/2023	1440	25	652	1415	763	53.90%
22/11/2023	1440	20	583	1420	837	58.93%
23/11/2023	1440	100	390	1340	950	70.87%
24/11/2023	1440	123	384	1317	933	70.84%
25/11/2023	1440	110	438	1330	892	67.05%
27/11/2023	1440	50	434	1390	956	68.75%
28/11/2023	1440	140	462	1300	838	64.50%
29/11/2023	1440	45	383	1395	1012	72.54%
Total	33600	2567	10681	31033	20352	64.55%

g. Desember

Tanggal	<i>Machin e workin g times (menit)</i>	<i>Planned downtim e (menit)</i>	<i>Unplanne d downtime (menit)</i>	<i>Loadin g time (menit)</i>	<i>Operatin g time (menit)</i>	<i>Availabili ty rate (%)</i>
04/12/2023	1440	523	644	917	273	29.81%
05/12/2023	1440	130	677	1310	633	48.35%
06/12/2023	1440	15	628	1425	797	55.92%
07/12/2023	1440	220	386	1220	834	68.39%
08/12/2023	1440	150	489	1290	801	62.12%
09/12/2023	1440	50	451	1390	939	67.56%
10/12/2023	1440	30	444	1410	966	68.53%
11/12/2023	1440	30	353	1410	1057	74.94%
12/12/2023	1440	235	489	1205	716	59.40%
13/12/2023	1440	40	394	1400	1006	71.89%
14/12/2023	1440	140	484	1300	816	62.74%
15/12/2023	1440	30	486	1410	924	65.53%
16/12/2023	1440	110	477	1330	853	64.15%
17/12/2023	1440	20	664	1420	756	53.22%
18/12/2023	1440	160	675	1280	605	47.23%
19/12/2023	1440	130	580	1310	730	55.74%
20/12/2023	1440	30	475	1410	935	66.28%
21/12/2023	1440	60	379	1380	1001	72.56%
22/12/2023	1440	105	557	1335	778	58.31%
23/12/2023	1440	40	327	1400	1073	76.67%
24/12/2023	1440	40	361	1400	1039	74.24%
26/12/2023	720	10	71	710	639	89.96%
29/12/2023	720	10	25	710	639	89.96%
30/12/2023	960	40	257	920	895	97.24%
Total	32640	2348	10771	30292	19706	65.86%

h. Januari

Tanggal	<i>Machin e workin g times (menit)</i>	<i>Planned downti me (menit)</i>	<i>Unplann ed downtim e (menit)</i>	<i>Loadin g time (menit)</i>	<i>Operati ng time (menit)</i>	<i>Availabili ty rate (%)</i>
03/01/2024	1440	130	367	1310	943	71.95%
04/01/2024	1440	40	364	1400	1036	74.00%
05/01/2024	1440	40	363	1400	1037	74.05%
06/01/2024	1440	120	328	1320	992	75.18%
07/01/2024	1440	80	198	1360	1162	85.48%
08/01/2024	1440	140	394	1300	906	69.67%
09/01/2024	1440	170	833	1270	438	34.45%
10/01/2024	1440	190	506	1250	744	59.52%
11/01/2024	1440	210	536	1230	694	56.39%
12/01/2024	1440	40	267	1400	1133	80.96%
13/01/2024	1440	150	350	1290	940	72.85%
14/01/2024	1440	40	386	1400	1014	72.45%
15/01/2024	720	10	162	710	548	77.22%
16/01/2024	1440	320	575	1120	545	48.64%
17/01/2024	1440	0	541	1440	899	62.46%
18/01/2024	1440	235	631	1205	574	47.67%
19/01/2024	1440	50	339	1390	1051	75.59%
20/01/2024	1440	70	340	1370	1030	75.18%
21/01/2024	1440	120	223	1320	1097	83.12%
22/01/2024	1440	20	144	1420	1276	89.89%
23/01/2024	1440	30	195	1410	1215	86.20%
24/01/2024	1440	180	338	1260	922	73.17%
25/01/2024	1440	495	542	945	403	42.68%
26/01/2024	1440	130	353	1310	957	73.03%
27/01/2024	1440	30	250	1410	1160	82.25%
28/01/2024	1440	285	335	1155	820	71.01%
29/01/2024	1440	30	255	1410	1155	81.91%
30/01/2024	1440	145	313	1295	982	75.81%
31/01/2024	720	0	214	720	506	70.21%
Total	40320	3500	10641	30030	21009	70.45%

i. Februari

Tanggal	<i>Machineworking times (menit)</i>	<i>Planned downtime (menit)</i>	<i>Unplanned downtime (menit)</i>	<i>Loading time (menit)</i>	<i>Operating time (menit)</i>	<i>Availability rate (%)</i>
01/02/2024	1440	105	381	1335	954	71.43%
02/02/2024	1440	130	313	1310	997	76.10%
03/02/2024	1440	40	254	1400	1146	81.86%
04/02/2024	1440	135	471	1305	834	63.89%
05/02/2024	1440	40	341	1400	1059	75.61%
06/02/2024	1440	115	369	1325	956	72.11%
07/02/2024	1440	45	291	1395	1104	79.17%
08/02/2024	1440	340	643	1100	457	41.53%
11/02/2024	1440	20	699	1420	721	50.79%
12/02/2024	1440	430	635	1010	375	37.14%
13/02/2024	1440	35	571	1405	834	59.33%
15/02/2024	1440	140	681	1300	619	47.58%
16/02/2024	1440	40	779	1400	621	44.37%
17/02/2024	1440	180	661	1260	599	47.53%
18/02/2024	1440	130	415	1310	895	68.32%
19/02/2024	1440	25	290	1415	1125	79.51%
20/02/2024	1440	130	511	1310	799	61.01%
21/02/2024	1440	70	308	1370	1062	77.53%
22/02/2024	1440	90	480	1350	870	64.42%
23/02/2024	1440	100	394	1340	946	70.57%
24/02/2024	1440	170	261	1270	1009	79.45%
25/02/2024	1440	25	204	1415	1211	85.60%
26/02/2024	1440	20	157	1420	1263	88.97%
27/02/2024	1440	100	231	1340	1109	82.78%
28/02/2024	1440	105	390	1335	945	70.77%
29/02/2024	1440	65	267	1375	1108	80.59%
Total	37440	2825	10998	34615	23617	67.61%

Lampiran 15 perhitungan performance rate bulanan

a. September

Tanggal	<i>Machine working times (menit)</i>	<i>Total production (pcs)</i>	<i>Production target (pcs)</i>	<i>Operating time (menit)</i>	<i>Ideal cycle time (%)</i>	<i>Performance rate (%)</i>
04/09/2023	1440	134784	335957	470	0.14%	40.12%
05/09/2023	1440	120240	197647	644	0.33%	60.84%
06/09/2023	1440	159336	164112	967	0.59%	97.09%
07/09/2023	960	65448	81144	747	0.92%	80.66%
08/09/2023	1440	145944	164368	800	0.49%	88.79%
09/09/2023	900	109512	116391	490	0.42%	94.09%
11/09/2023	1440	155736	149639	1039	0.69%	104.07%
12/09/2023	1440	172008	168833	890	0.53%	101.88%
13/09/2023	1440	194184	168834	1151	0.68%	115.01%
14/09/2023	1440	126720	160800	744	0.46%	78.81%
15/09/2023	1440	80424	93484	1172	1.25%	86.03%
22/09/2023	1440	120960	150862	835	0.55%	80.18%
25/09/2023	480	41904	54601	260	0.48%	76.75%
Total	16740	1627200	2006672	10207	0.58%	84.95%

b. oktober

Tanggal	<i>Machine working times (menit)</i>	<i>Total production (pcs)</i>	<i>Production target (pcs)</i>	<i>Operating time (menit)</i>	<i>Ideal cycle time (%)</i>	<i>Performance rate (%)</i>
2/10/2023	1440	319104	463372	372	0.08%	68.87%
3/10/2023	1440	408960	482400	892	0.18%	84.78%
4/10/2023	1440	425232	473580	858	0.18%	89.79%
5/10/2023	1440	119664	160800	463	0.29%	74.42%
6/10/2023	1440	184680	157304	1158	0.74%	117.40%
7/10/2023	1440	114624	198342	498	0.25%	57.79%
9/10/2023	1440	121248	206866	659	0.32%	58.61%
10/10/2023	1440	274896	399784	458	0.11%	68.76%
11/10/2023	1440	463248	482400	977	0.20%	96.03%
12/10/2023	1440	511632	482400	993	0.21%	106.06%
13/10/2023	1440	503136	470483	1074	0.23%	106.94%

14/10/2023	1440	419904	506546	740	0.15%	82.90%
16/10/2023	1440	464832	482400	875	0.18%	96.36%
17/10/2023	1440	167328	171500	879	0.51%	97.57%
18/10/2023	1440	180288	160800	1121	0.70%	112.12%
19/10/2023	1440	197208	152223	1286	0.84%	129.55%
20/10/2023	1440	183600	157264	1058	0.67%	116.75%
21/10/2023	1440	148248	171607	612	0.36%	86.39%
23/10/2023	1440	365184	326536	1229	0.38%	111.84%
24/10/2023	1440	363312	312637	1246	0.40%	116.21%
25/10/2023	1440	274896	337698	958	0.28%	81.40%
26/10/2023	1440	421344	361599	1217	0.34%	116.52%
27/10/2023	1440	400896	471725	663	0.14%	84.99%
28/10/2023	780	246816	290934	371	0.13%	84.84%
31/10/2023	960	184752	239566	648	0.27%	77.12%
Totsl	34860	7465032	8120765	21306	0.33%	92.96%

c. november

Tanggal	<i>Mach ine worki ng times (meni t)</i>	<i>Total producti on (pcs)</i>	<i>Producti on target (pcs)</i>	<i>Operati ng time (menit)</i>	<i>Ideal cycle time (%)</i>	<i>Performan ce rate (%)</i>
01/11/2023	1440	371808	416157	955	0.23%	89.34%
02/11/2023	1440	486144	482400	810	0.17%	100.78%
03/11/2023	1440	363600	505000	606	0.12%	72.00%
06/11/2023	1440	345888	376393	721	0.19%	91.90%
07/11/2023	1440	471456	385920	982	0.25%	122.16%
08/11/2023	1440	405936	398618	819	0.21%	101.84%
09/11/2023	1440	444384	402022	889	0.22%	110.54%
10/11/2023	1440	460368	392176	921	0.23%	117.39%
11/11/2023	1440	374544	414100	749	0.18%	90.45%
13/11/2023	1440	382320	402063	765	0.19%	95.09%
14/11/2023	1440	120312	160800	602	0.37%	74.82%
15/11/2023	1440	132192	149055	661	0.44%	88.69%
16/11/2023	1440	152352	168832	726	0.43%	90.24%

17/11/2023	1440	159192	157151	796	0.51%	101.30%
18/11/2023	480	43776	56285	219	0.39%	77.78%
20/11/2023	1440	211248	474317	352	0.07%	44.54%
21/11/2023	1440	328608	482400	548	0.11%	68.12%
22/11/2023	1440	370080	482400	617	0.13%	76.72%
23/11/2023	1440	478368	475036	810	0.17%	100.70%
24/11/2023	1440	466272	466969	786	0.17%	99.85%
25/11/2023	1440	493056	506513	822	0.16%	97.34%
27/11/2023	1440	477360	493872	796	0.16%	96.66%
28/11/2023	1440	479088	506531	798	0.16%	94.58%
29/11/2023	1440	457200	458912	762	0.17%	99.63%
Total	3360 0	8475552	9213921	17509	0.23%	91.77%

d. Desember

Tanggal	<i>Machine working times (menit)</i>	<i>Total production (pcs)</i>	<i>Production target (pcs)</i>	<i>Operating time (menit)</i>	<i>Ideal cycle time (%)</i>	<i>Performance rate (%)</i>
04/12/2023	1440	83520	203485	273	0.13%	41.04%
05/12/2023	1440	138168	212274	633	0.30%	65.09%
06/12/2023	1440	150984	212163	797	0.38%	71.16%
07/12/2023	1440	185472	203182	834	0.41%	91.28%
08/12/2023	1440	340704	392085	801	0.20%	86.90%
09/12/2023	1440	374544	402026	939	0.23%	93.16%
10/12/2023	1440	378144	402026	966	0.24%	94.06%
11/12/2023	1440	423360	402000	1057	0.26%	105.31%
12/12/2023	1440	254808	288235	716	0.25%	88.40%
13/12/2023	1440	161280	160800	1006	0.63%	100.30%
14/12/2023	1440	143136	160800	816	0.51%	89.01%
15/12/2023	1440	136800	156490	924	0.59%	87.42%
16/12/2023	1440	144648	160800	853	0.53%	89.96%
17/12/2023	1440	121680	182629	756	0.41%	66.63%
18/12/2023	1440	218376	334733	605	0.18%	65.24%
19/12/2023	1440	372096	482400	730	0.15%	77.13%
20/12/2023	1440	434736	482400	935	0.19%	90.12%
21/12/2023	1440	492768	482400	1001	0.21%	102.15%

22/12/2023	1440	368064	472510	778	0.16%	77.90%
23/12/2023	1440	452016	431534	1073	0.25%	104.75%
24/12/2023	1440	491616	474410	1039	0.22%	103.63%
26/12/2023	720	83232	84416	639	0.76%	98.60%
29/12/2023	720	140688	126186	639	0.51%	111.49%
30/12/2023	960	218016	247536	895	0.36%	88.07%
Total	32640	6308856	7157518	19706	0.34%	87.03%

e. Januari

Tanggal	<i>Machineworking times (menit)</i>	<i>Total production (pcs)</i>	<i>Production target (pcs)</i>	<i>Operating time (menit)</i>	<i>Ideal cycle time (%)</i>	<i>Performance rate (%)</i>
03/01/2024	1440	443232	444293	943	0.21%	99.76%
04/01/2024	1440	481536	463082	1036	0.22%	103.99%
05/01/2024	1440	464688	452794	1037	0.23%	102.63%
06/01/2024	1440	516816	476295	992	0.21%	108.51%
07/01/2024	1440	601488	482400	1162	0.24%	124.69%
08/01/2024	1440	483408	482400	906	0.19%	100.21%
09/01/2024	1440	211680	463028	438	0.09%	45.72%
10/01/2024	1440	354969	411256	744	0.18%	86.31%
11/01/2024	1440	331776	401971	694	0.17%	82.54%
12/01/2024	1440	451728	391942	1133	0.29%	115.25%
13/01/2024	1440	399168	377690	940	0.25%	105.69%
14/01/2024	1440	162864	160800	1014	0.63%	101.28%
15/01/2024	720	63648	64320	548	0.85%	98.96%
16/01/2024	1440	129528	166700	545	0.33%	77.70%
17/01/2024	1440	174096	212274	899	0.42%	82.01%
18/01/2024	1440	214560	302898	574	0.19%	70.84%
19/01/2024	1440	398736	377922	1051	0.28%	105.51%
20/01/2024	1440	416304	389232	1030	0.26%	106.96%
21/01/2024	1440	488592	402504	1097	0.27%	121.39%
22/01/2024	1440	528192	402009	1276	0.32%	131.39%
23/01/2024	1440	502704	402019	1215	0.30%	125.04%
24/01/2024	1440	433152	404082	922	0.23%	107.19%

25/01/2024	1440	376992	470976	403	0.09%	80.04%
26/01/2024	1440	490032	471930	957	0.20%	103.84%
27/01/2024	1440	443808	391767	1160	0.30%	113.28%
28/01/2024	1440	195120	270104	820	0.30%	72.24%
29/01/2024	1440	206928	241200	1155	0.48%	85.79%
30/01/2024	1440	316080	323615	982	0.30%	97.67%
31/01/2024	720	219312	233163	506	0.22%	94.06%
Total	33120	7993377	8215802	21009	0.28%	98.29%

f. Februari

Tanggal	<i>Mach ine worki ng times (meni t)</i>	<i>Total productio n (pcs)</i>	<i>Productio n target (pcs)</i>	<i>Operat ing time (menit)</i>	<i>Ideal cycle time (%)</i>	<i>Performan ce rate (%)</i>
01/02/2024	1440	473184	471145	954	0.20%	100.43%
02/02/2024	1440	512784	469416	997	0.21%	109.24%
03/02/2024	1440	544896	463124	1146	0.25%	117.66%
04/02/2024	1440	337608	372464	834	0.22%	90.64%
05/02/2024	1440	171720	160800	1059	0.66%	106.79%
06/02/2024	1440	166104	160800	956	0.59%	103.30%
07/02/2024	1440	181872	160800	1104	0.69%	113.10%
08/02/2024	1440	125424	183802	457	0.25%	68.24%
11/02/2024	1440	124416	206385	721	0.35%	60.28%
12/02/2024	1440	273456	389075	375	0.10%	70.28%
13/02/2024	1440	377136	482400	834	0.17%	78.18%
15/02/2024	1440	291177	464276	619	0.13%	62.72%
16/02/2024	1440	225315	453473	621	0.14%	49.69%
17/02/2024	1440	317070	473133	599	0.13%	67.01%
18/02/2024	1440	471024	482400	895	0.19%	97.64%
19/02/2024	1440	546048	482400	1125	0.23%	113.19%
20/02/2024	1440	386928	451405	799	0.18%	85.72%
21/02/2024	1440	446112	402011	1062	0.26%	110.97%
22/02/2024	1440	359856	401973	870	0.22%	89.52%
23/02/2024	1440	387792	392834	946	0.24%	98.72%

24/02/2024	1440	467568	400346	1009	0.25%	116.79%
25/02/2024	1440	478224	385897	1211	0.31%	123.93%
26/02/2024	1440	500832	385920	1263	0.33%	129.78%
27/02/2024	1440	475344	394305	1109	0.28%	120.55%
28/02/2024	1440	404064	401190	945	0.24%	100.72%
29/02/2024	1440	229968	263292	1108	0.42%	87.34%
Total	34560	8289954	8814504	21666	0.28%	95.09%

Lampiran 16 perhitungan quality rate bulanan

a. September

Tanggal	Total production (pcs)	Defect (pcs)	Quality rate (%)
04/09/2023	134784	0	100.00%
05/09/2023	120240	0	100.00%
06/09/2023	159336	0	100.00%
07/09/2023	65448	0	100.00%
08/09/2023	145944	0	100.00%
09/09/2023	109512	0	100.00%
11/09/2023	155736	0	100.00%
12/09/2023	172008	0	100.00%
13/09/2023	194184	0	100.00%
14/09/2023	126720	0	100.00%
15/09/2023	80424	0	100.00%
22/09/2023	120960	0	100.00%
25/09/2023	41904	0	100.00%
Total	1627200	0	100.00%

b. Oktober

Tanggal	<i>Total production (pcs)</i>	<i>Defect (pcs)</i>	<i>Quality rate (%)</i>
2/10/2023	319104	0	100.00%
3/10/2023	408960	0	100.00%
4/10/2023	425232	0	100.00%
5/10/2023	119664	0	100.00%
6/10/2023	184680	0	100.00%
7/10/2023	114624	0	100.00%
9/10/2023	121248	0	100.00%
10/10/2023	274896	0	100.00%
11/10/2023	463248	0	100.00%
12/10/2023	511632	0	100.00%
13/10/2023	503136	0	100.00%
14/10/2023	419904	0	100.00%
16/10/2023	464832	0	100.00%
17/10/2023	167328	0	100.00%
18/10/2023	180288	0	100.00%
19/10/2023	197208	0	100.00%
20/10/2023	183600	0	100.00%
21/10/2023	148248	0	100.00%
23/10/2023	365184	0	100.00%
24/10/2023	363312	0	100.00%
25/10/2023	274896	0	100.00%
26/10/2023	421344	0	100.00%
27/10/2023	400896	0	100.00%
28/10/2023	246816	0	100.00%
31/10/2023	184752	0	100.00%
Total	7465032	0	100.00%

c. November

Tanggal	<i>Total production (pcs)</i>	<i>Defect (pcs)</i>	<i>Quality rate (%)</i>
01/11/2023	319104	0	100.00%
02/11/2023	408960	0	100.00%
03/11/2023	425232	0	100.00%
06/11/2023	119664	0	100.00%
07/11/2023	184680	0	100.00%
08/11/2023	114624	0	100.00%
09/11/2023	121248	0	100.00%
10/11/2023	274896	0	100.00%
11/11/2023	463248	0	100.00%
13/11/2023	511632	0	100.00%
14/11/2023	503136	0	100.00%
15/11/2023	419904	0	100.00%
16/11/2023	464832	0	100.00%
17/11/2023	167328	0	100.00%
18/11/2023	180288	0	100.00%
20/11/2023	197208	0	100.00%
21/11/2023	183600	0	100.00%
22/11/2023	148248	0	100.00%
23/11/2023	365184	0	100.00%
24/11/2023	363312	0	100.00%
25/11/2023	274896	0	100.00%
27/11/2023	421344	0	100.00%
28/11/2023	400896	0	100.00%
29/11/2023	246816	0	100.00%
Total	7280280	0	100.00%

d. Desember

Tanggal	<i>Total production (pcs)</i>	<i>Defect (pcs)</i>	<i>Quality rate (%)</i>
04/12/2023	319104	0	100.00%
05/12/2023	408960	0	100.00%
06/12/2023	425232	0	100.00%
07/12/2023	119664	0	100.00%
08/12/2023	184680	0	100.00%
09/12/2023	114624	0	100.00%
10/12/2023	121248	0	100.00%
11/12/2023	274896	0	100.00%
12/12/2023	463248	0	100.00%
13/12/2023	511632	0	100.00%
14/12/2023	503136	0	100.00%
15/12/2023	419904	0	100.00%
16/12/2023	464832	0	100.00%
17/12/2023	167328	0	100.00%
18/12/2023	180288	0	100.00%
19/12/2023	197208	0	100.00%
20/12/2023	183600	0	100.00%
21/12/2023	148248	0	100.00%
22/12/2023	365184	0	100.00%
23/12/2023	363312	0	100.00%
24/12/2023	274896	0	100.00%
26/12/2023	421344	0	100.00%
29/12/2023	400896	0	100.00%
30/12/2023	246816	0	100.00%
Total	7280280	0	100.00%

e. Januari

Tanggal	<i>Total production</i> (pcs)	<i>Defect</i> (pcs)	<i>Quality rate</i> (%)
03/01/2024	443232	0	100.00%
04/01/2024	481536	0	100.00%
05/01/2024	464688	0	100.00%
06/01/2024	516816	0	100.00%
07/01/2024	601488	0	100.00%
08/01/2024	483408	0	100.00%
09/01/2024	211680	0	100.00%
10/01/2024	354969	0	100.00%
11/01/2024	331776	0	100.00%
12/01/2024	451728	0	100.00%
13/01/2024	399168	0	100.00%
14/01/2024	162864	0	100.00%
15/01/2024	63648	0	100.00%
16/01/2024	129528	0	100.00%
17/01/2024	174096	0	100.00%
18/01/2024	214560	0	100.00%
19/01/2024	398736	0	100.00%
20/01/2024	416304	0	100.00%
21/01/2024	488592	0	100.00%
22/01/2024	528192	0	100.00%
23/01/2024	502704	0	100.00%
24/01/2024	433152	0	100.00%
25/01/2024	376992	0	100.00%
26/01/2024	490032	0	100.00%
27/01/2024	443808	0	100.00%
28/01/2024	195120	0	100.00%
29/01/2024	206928	0	100.00%
30/01/2024	316080	0	100.00%
31/01/2024	219312	0	100.00%
Total	7993377	0	100.00%

f. Februari

Tanggal	<i>Total production</i> (pcs)	<i>Defect</i> (pcs)	<i>Quality rate</i> (%)
01/02/2024	443232	0	100.00%
02/02/2024	481536	0	100.00%
03/02/2024	464688	0	100.00%
04/02/2024	516816	0	100.00%
05/02/2024	601488	0	100.00%
06/02/2024	483408	0	100.00%
07/02/2024	211680	0	100.00%
08/02/2024	354969	0	100.00%
11/02/2024	331776	0	100.00%
12/02/2024	451728	0	100.00%
13/02/2024	399168	0	100.00%
15/02/2024	162864	0	100.00%
16/02/2024	63648	0	100.00%
17/02/2024	129528	0	100.00%
18/02/2024	174096	0	100.00%
19/02/2024	214560	0	100.00%
20/02/2024	398736	0	100.00%
21/02/2024	416304	0	100.00%
22/02/2024	488592	0	100.00%
23/02/2024	528192	0	100.00%
24/02/2024	502704	0	100.00%
25/02/2024	433152	0	100.00%
26/02/2024	376992	0	100.00%
27/02/2024	490032	0	100.00%
28/02/2024	443808	0	100.00%
29/02/2024	195120	0	100.00%
Total	8834049	0	100.00%

Lampiran 19 perhitungan OEE bulanan

a. September

Tanggal	Availability (%)	Performance (%)	Quality rate (%)	OEE (%)
04/09/2023	36.69%	40.12%	100.00%	14.72%
05/09/2023	50.69%	60.84%	100.00%	30.84%
06/09/2023	69.05%	97.09%	100.00%	67.04%
07/09/2023	80.35%	80.66%	100.00%	64.81%
08/09/2023	61.52%	88.79%	100.00%	54.62%
09/09/2023	60.52%	94.09%	100.00%	56.94%
11/09/2023	75.27%	104.07%	100.00%	78.33%
12/09/2023	69.00%	101.88%	100.00%	70.29%
13/09/2023	79.93%	115.01%	100.00%	91.93%
14/09/2023	56.76%	78.81%	100.00%	44.73%
15/09/2023	84.94%	86.03%	100.00%	73.07%
22/09/2023	59.63%	80.18%	100.00%	47.81%
25/09/2023	58.98%	76.75%	100.00%	45.27%
Total	64.87%	84.95%	100.00%	56.95%

b. Oktober

Tanggal	Availability (%)	Performance (%)	Quality rate (%)	OEE (%)
2/10/2023	38.33%	68.87%	100.00%	26.40%
3/10/2023	63.23%	84.78%	100.00%	53.61%
4/10/2023	64.54%	89.79%	100.00%	57.95%
5/10/2023	43.50%	74.42%	100.00%	32.37%
6/10/2023	82.45%	117.40%	100.00%	96.80%
7/10/2023	39.56%	57.79%	100.00%	22.86%
9/10/2023	48.84%	58.61%	100.00%	28.62%
10/10/2023	41.43%	68.76%	100.00%	28.49%
11/10/2023	69.54%	96.03%	100.00%	66.78%
12/10/2023	74.08%	106.06%	100.00%	78.57%
13/10/2023	76.41%	106.94%	100.00%	81.71%
14/10/2023	56.91%	82.90%	100.00%	47.18%
16/10/2023	67.29%	96.36%	100.00%	64.84%
17/10/2023	67.91%	97.57%	100.00%	66.26%

18/10/2023	78.97%	112.12%	100.00%	88.55%
19/10/2023	89.31%	129.55%	100.00%	115.70%
20/10/2023	80.76%	116.75%	100.00%	94.29%
21/10/2023	53.56%	86.39%	100.00%	46.27%
23/10/2023	85.92%	111.84%	100.00%	96.09%
24/10/2023	87.71%	116.21%	100.00%	101.93%
25/10/2023	71.50%	81.40%	100.00%	58.21%
26/10/2023	86.02%	116.52%	100.00%	100.24%
27/10/2023	56.92%	84.99%	100.00%	48.38%
28/10/2023	57.13%	84.84%	100.00%	48.47%
31/10/2023	68.93%	77.12%	100.00%	53.16%
Total	66.03%	92.96%	100.00%	61.38%

c. November

Tanggal	<i>Availability</i> (%)	<i>Performance</i> (%)	<i>Quality</i> <i>rate</i> (%)	OEE (%)
01/11/2023	68.93%	89.34%	100.00%	61.58%
02/11/2023	70.91%	100.78%	100.00%	71.46%
03/11/2023	36.12%	72.00%	100.00%	26.01%
06/11/2023	67.90%	91.90%	100.00%	62.40%
07/11/2023	84.66%	122.16%	100.00%	#####
08/11/2023	69.16%	101.84%	100.00%	70.43%
09/11/2023	76.15%	110.54%	100.00%	84.18%
10/11/2023	82.20%	117.39%	100.00%	96.49%
11/11/2023	61.19%	90.45%	100.00%	55.35%
13/11/2023	66.51%	95.09%	100.00%	63.24%
14/11/2023	54.32%	74.82%	100.00%	40.64%
15/11/2023	68.27%	88.69%	100.00%	60.54%
16/11/2023	64.32%	90.24%	100.00%	58.05%
17/11/2023	73.28%	101.30%	100.00%	74.23%
18/11/2023	48.43%	77.78%	100.00%	37.67%
20/11/2023	29.49%	44.54%	100.00%	13.13%
21/11/2023	53.90%	68.12%	100.00%	36.72%

22/11/2023	58.93%	76.72%	100.00%	45.21%
23/11/2023	70.87%	100.70%	100.00%	71.36%
24/11/2023	70.84%	99.85%	100.00%	70.73%
25/11/2023	67.05%	97.34%	100.00%	65.27%
27/11/2023	68.75%	96.66%	100.00%	66.45%
28/11/2023	64.50%	94.58%	100.00%	61.00%
29/11/2023	72.54%	99.63%	100.00%	72.27%
Total	64.55%	91.77%	100.00%	61.16%

d. Desember

Tanggal	<i>Availability</i> (%)	<i>Performance</i> (%)	<i>Quality rate</i> (%)	OEE (%)
04/12/2023	29.81%	41.04%	100.00%	12.24%
05/12/2023	48.35%	65.09%	100.00%	31.47%
06/12/2023	55.92%	71.16%	100.00%	39.80%
07/12/2023	68.39%	91.28%	100.00%	62.43%
08/12/2023	62.12%	86.90%	100.00%	53.98%
09/12/2023	67.56%	93.16%	100.00%	62.94%
10/12/2023	68.53%	94.06%	100.00%	64.46%
11/12/2023	74.94%	105.31%	100.00%	78.93%
12/12/2023	59.40%	88.40%	100.00%	52.51%
13/12/2023	71.89%	100.30%	100.00%	72.10%
14/12/2023	62.74%	89.01%	100.00%	55.85%
15/12/2023	65.53%	87.42%	100.00%	57.29%
16/12/2023	64.15%	89.96%	100.00%	57.71%
17/12/2023	53.22%	66.63%	100.00%	35.46%
18/12/2023	47.23%	65.24%	100.00%	30.81%
19/12/2023	55.74%	77.13%	100.00%	42.99%
20/12/2023	66.28%	90.12%	100.00%	59.73%
21/12/2023	72.56%	102.15%	100.00%	74.12%
22/12/2023	58.31%	77.90%	100.00%	45.42%
23/12/2023	76.67%	104.75%	100.00%	80.31%
24/12/2023	74.24%	103.63%	100.00%	76.93%
26/12/2023	89.96%	98.60%	100.00%	88.70%
29/12/2023	89.96%	111.49%	100.00%	100.30%
30/12/2023	97.24%	88.07%	100.00%	85.65%

Total	65.86%	87.03%	100.00%	59.25%
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e. Januari

Tanggal	Availability (%)	Performance (%)	Quality rate (%)	OEE (%)
03/01/2024	71.95%	99.76%	100.00%	71.78%
04/01/2024	74.00%	103.99%	100.00%	76.95%
05/01/2024	74.05%	102.63%	100.00%	76.00%
06/01/2024	75.18%	108.51%	100.00%	81.57%
07/01/2024	85.48%	124.69%	100.00%	106.58%
08/01/2024	69.67%	100.21%	100.00%	69.81%
09/01/2024	34.45%	45.72%	100.00%	15.75%
10/01/2024	59.52%	86.31%	100.00%	51.37%
11/01/2024	56.39%	82.54%	100.00%	46.54%
12/01/2024	80.96%	115.25%	100.00%	93.31%
13/01/2024	72.85%	105.69%	100.00%	76.99%
14/01/2024	72.45%	101.28%	100.00%	73.38%
15/01/2024	77.22%	98.96%	100.00%	76.41%
16/01/2024	48.64%	77.70%	100.00%	37.79%
17/01/2024	62.46%	82.01%	100.00%	51.23%
18/01/2024	47.67%	70.84%	100.00%	33.77%
19/01/2024	75.59%	105.51%	100.00%	79.75%
20/01/2024	75.18%	106.96%	100.00%	80.41%
21/01/2024	83.12%	121.39%	100.00%	100.90%
22/01/2024	89.89%	131.39%	100.00%	118.10%
23/01/2024	86.20%	125.04%	100.00%	107.79%
24/01/2024	73.17%	107.19%	100.00%	78.43%
25/01/2024	42.68%	80.04%	100.00%	34.16%
26/01/2024	73.03%	103.84%	100.00%	75.83%
27/01/2024	82.25%	113.28%	100.00%	93.17%
28/01/2024	71.01%	72.24%	100.00%	51.30%
29/01/2024	81.91%	85.79%	100.00%	70.27%
30/01/2024	75.81%	97.67%	100.00%	74.05%
31/01/2024	70.21%	94.06%	100.00%	66.04%
Total	70.45%	98.29%	100.00%	71.36%

f. Februari

Tanggal	<i>Availability</i> (%)	<i>Performance</i> (%)	<i>Quality rate</i> (%)	OEE (%)
01/02/2024	71.43%	100.43%	100.00%	71.74%
02/02/2024	76.10%	109.24%	100.00%	83.13%
03/02/2024	81.86%	117.66%	100.00%	96.31%
04/02/2024	63.89%	90.64%	100.00%	57.91%
05/02/2024	75.61%	106.79%	100.00%	80.75%
06/02/2024	72.11%	103.30%	100.00%	74.49%
07/02/2024	79.17%	113.10%	100.00%	89.54%
08/02/2024	41.53%	68.24%	100.00%	28.34%
11/02/2024	50.79%	60.28%	100.00%	30.62%
12/02/2024	37.14%	70.28%	100.00%	26.10%
13/02/2024	59.33%	78.18%	100.00%	46.38%
15/02/2024	47.58%	62.72%	100.00%	29.84%
16/02/2024	44.37%	49.69%	100.00%	22.05%
17/02/2024	47.53%	67.01%	100.00%	31.85%
18/02/2024	68.32%	97.64%	100.00%	66.71%
19/02/2024	79.51%	113.19%	100.00%	90.00%
20/02/2024	61.01%	85.72%	100.00%	52.29%
21/02/2024	77.53%	110.97%	100.00%	86.04%
22/02/2024	64.42%	89.52%	100.00%	57.67%
23/02/2024	70.57%	98.72%	100.00%	69.66%
24/02/2024	79.45%	116.79%	100.00%	92.79%
25/02/2024	85.60%	123.93%	100.00%	106.09%
26/02/2024	88.97%	129.78%	100.00%	115.46%
27/02/2024	82.78%	120.55%	100.00%	99.79%
28/02/2024	70.77%	100.72%	100.00%	71.28%
29/02/2024	80.59%	87.34%	100.00%	70.39%
Total	67.61%	95.09%	100.00%	67.20%

Lampiran 20 perhitungan Availability rate monitoring implementasi

Tanggal	<i>Mach ine worki ng times (meni t)</i>	<i>Planned downtim e (menit)</i>	<i>Unplanne d downtime (meniit)</i>	<i>Loadin g time</i>	<i>Operatin g time</i>	<i>Availabilit y rate</i>
27/4/2024	1400	139	558	1261	703	55.75%
29/4/2024	1400	248	304	1152	848	73.61%
30/4/2024	1400	76	506	1324	818	61.78%
2/5/2024	1400	316	382	1084	702	64.76%
3/5/2024	1400	281	409	1119	710	63.45%
4/5/2024	960	60	351	900	549	61.00%
Total	7960	1120	2510	6840	4330	63.39%

Lampiran 21 perhitungan performance rate monitoring implementasi

Tanggal	<i>Machin e workin g times (menit)</i>	<i>Total producti on (pcs)</i>	<i>Producti on target (pcs)</i>	<i>Operati ng time (menit)</i>	<i>Ideal cycle time</i>	<i>Performan ce rate</i>
27/4/2024	1400	309168	336270	703	0.21%	91.94%
29/4/2024	1400	236664	243198	848	0.35%	97.31%
30/4/2024	1400	263232	266011	818	0.31%	98.96%
2/5/2024	1400	408672	418670	702	0.17%	97.61%
3/5/2024	1400	365760	359852	710	0.20%	101.64%
4/5/2024	960	274320	308380	549	0.18%	88.96%
Total	7960	1857816	1932381	4330	0.23%	96.07%

Lampiran 22 perhitungan quality rate monitoring implementasi


Tanggal	<i>Total production</i> (pcs)	<i>Defect</i>	<i>Quality rate</i>
27/4/2024	309168	0	100.00%
29/4/2024	236664	0	100.00%
30/4/2024	263232	0	100.00%
2/5/2024	408672	0	100.00%
3/5/2024	365760	0	100.00%
4/5/2024	274320	0	100.00%
Total	1857816	0	100.00%

Lampiran 22 perhitungan OEE monitoring implementasi


Tanggal	<i>Availability</i>	<i>Performance</i>	<i>Quality rate</i>	OEE
27/4/2024	55.75%	91.94%	100.00%	51.26%
29/4/2024	73.61%	97.31%	100.00%	71.63%
30/4/2024	61.78%	98.96%	100.00%	61.14%
2/5/2024	64.76%	97.61%	100.00%	63.21%
3/5/2024	63.45%	101.64%	100.00%	64.49%
4/5/2024	61.00%	88.96%	100.00%	54.26%
Total	63.39%	96.07%	100.00%	60.90%












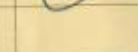

Lampiran 23 kartu bimbingan

JURNAL BIMBINGAN TUGAS AKHIR
PRODI TEKNIK INDUSTRI
SEMESTER GENAP 2023/2024




Nama : Rahman Kevana
 NBI : 102000025
 Judul Penelitian : ANALISIS TOTAL PRODUCTIVE MAINTENANCE (TPM)
PADA MESIN WRAPPER LINE 2 PRODUKSI SABUN BATANG DI
PT PECKITT INDONESIA (CELEUNSI FACTORY)
 Dosen Pembimbing:



No.	Tanggal	Materi Bimbingan	Catatan Pembimbing	Paraf Pembimbing
1	5/3 2024		Gali ulas masalah & seputar BAB 1-3.	
2	6/3 2024		BAB 1-3	
3	8/3 2024		BAB 1-3 belum detail	
4	12/3 2024		Emporalan BAB 1-BAB 5 sesuai bimbingan.	
5	14/3 2024		Revisi	
6	15/3 2024		Revisi	
7	22/4 2024		Perbaikan BAB 4	
8	26/4 2024		Tabel gambar	
9	3/5 2024		Perbaikan Kata	
10	7/5 2024		BAB 4	
11	8/5 2024		BAB 5	
12	10/5 2024		Perbaikan BAB 5 dan Lampiran	
13	15/5 2024		Revisi	

Lampiran 24 surat izin penelitian



 Cileungsi Factory	SURAT BALASAN MAGANG	Document Number : CLS-HRD-F-059
		Revision : 03
		Refers to : CLS-HRD-P-018
		Date : October-2023
		Author : Windi Fitriyani

Cileungsi, 20 Februari 2024

No : 10/SB/RB/II/2024
 Perihal : Surat Balasan Permohonan Penelitian

Kepada yth :
 Dekan Bidang Akademik
 Universitas 17 Agustus 1945 Surabaya
 Di Tempat

Dengan Hormat,

Berkaitan dengan Surat Permohonan No. 495/K/FT/Akd/II/2024 perihal permohonan Pelaksanaan Penelitian dari Mahasiswa[i] dengan judul "**Analisis Total Productive Maintenance (TPM) Pada mesin Wrapper Line 2 Produksi Sabun Batang Menggunakan Overall Equipment Effectiveness dan Six Big Losses Pada PT Reckitt Indonesia (Cileungsi Factory)**", bersama surat ini kami MENYETUJUI permohonan tersebut, dengan peserta sebagai berikut :

Nama Mahasiswa [i] : Raihan Kesuma
 Nomer Induk Mahasiswa : 1412000063
 Fakultas/ Jurusan : Teknik

Pelaksanaan Penelitian akan dimulai pada Senin 15 April 2024 s.d Jumat 21 Juni 2024.

Hormat Kami,



 (Adhityo Irawan)
 Sr. HRBP Supply Manager

PT. Reckitt Indonesia

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www.reckitt.com

Lampiran 25 lembar revisi sidang TA

UNIVERSITAS 17 AGUSTUS 1945 SURABAYA
FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK INDUSTRI

REVISI SIDANG TUGAS AKHIR


NAMA : Raihan Kesuma
NBI : 1412000063 CONTINUOUS IMPROVEMENT DENGAN PCA PADA
JUDUL : ANALISIS TOTAL PRODUCTIVE MAINTENANCE (TPM) LINE 2 PRODUKSI SABUN BATANG DI PT. RECKITT INDONESIA
(CILEUNSI FACTORY)
BATAS BIMBINGAN REVISI : 1 Minggu setelah Sidang

NO	URAIAN	BAB	HALAMAN	NO	URAIAN	BAB	HALAMAN
1.	<p>Penulisan L6, kelainan nomor dan foto yg sama tidak ada foto profil</p> <p>Dada penggambaran kerucut rodd → foto carter dan proyek</p>			①	<p>Pertambahan judul penelitian</p> <p>'Tingkat Produktivitas manufaktur & aspekkan relevan dengan yang diketahui? jika tidak berapa alasan?</p> <p>Analisa perlu diperbaiki dan dengan tambahan, mengapa bisa terus improvement apa yang berpengaruh?</p>		


Telah Direvisi,
Dosen Penguji 1,


Ir. Siti Mundari, MT

Dosen Penguji 2,


Hilyah Nuha, ST., MT., CSCA

Surabaya, 21 Mei 2024
Mengetahui
Dosen Pembimbing/Ketua Penguji,


Siti Muhammatul Khoiroh, ST., MT