

Tabel Data Pengamatan Sebelum Redesain

Minggu	Set Up (menit)	Breakdown	Mc. Press	Mc. Potong	Mc. Inner	Mc. Laquer	Reject Mesin	Mesin Cap	Cek Akhir	Reject Total	Hasil Produksi
1	135	400	245	299	711	285	13057	233	4201	19031	260922
2	160	484	351	345	760	486	12963	278	4776	19959	306511
3	165	550	336	330	710	372	12240	291	4050	18329	294790
4	154	524	374	355	676	387	13317	289	4140	19538	294589
5	138	530	341	306	545	476	12112	234	3926	17940	295892
6	140	541	375	304	475	411	12560	219	3746	18090	292392
7	154	539	358	344	441	462	12761	251	3546	18163	292546
8	132	555	325	308	450	472	12584	228	3323	17690	290811
9	123	482	311	331	424	482	13929	252	3243	18972	304983
10	142	508	350	335	420	436	13308	223	3625	18697	295239
11	133	419	358	346	431	459	14314	216	3425	19549	302309
12	143	467	329	355	426	457	14092	243	3241	19143	293873
JUMLAH	3303	11598	7861	7617	12227	10085	301417	5681	86283	431171	6788792
RATA-RATA	42.35	148.69	100.78	97.65	156.76	129.29	3864.32	72.83	1106.19	5527.83	87035.79

Tabel *availability*

minggu	Loading Time (menit)	Breakdown (menit)	Downtime (menit)	Set-Up and Adjustment time	Operation Time (menit)	Availability (%)
1	7200	400	535	135	6665	92.57
2	8640	484	644	160	7996	92.55
3	8640	550	715	165	7925	91.72
4	8640	524	678	154	7962	92.15
5	8640	530	668	138	7972	92.27
6	8640	541	681	140	7959	92.12
7	8640	539	693	154	7947	91.98
8	8640	555	687	132	7953	92.05
9	8640	482	605	123	8035	93.00
10	8640	508	650	142	7990	92.48
11	8640	419	552	133	8088	93.61
12	8640	467	610	143	8030	92.94
JUMLAH	197280	11598	14901	3303	182379	7210.61
RATA-RATA	2529.23	148.69	191.04	42.35	2338.19	92.44

Tabel Performance

Minggu	Total Product Processed (pcs)	Ideal Cycle Time (menit)	Operation Time (menit)	Performance (%)
1	265356	0.023	6665	91.57
2	311565	0.023	7996	89.62
3	299131	0.023	7925	86.81
4	299018	0.023	7962	86.38
5	300052	0.023	7972	86.57
6	296357	0.023	7959	85.64
7	296343	0.023	7947	85.77
8	294362	0.023	7953	85.13
9	308478	0.023	8035	88.30
10	299087	0.023	7990	86.10
11	305950	0.023	8088	87.00
12	297357	0.023	8030	85.17
JUMLAH	6880756	1.794	182379	6759.96
RATA-RATA	88214.82	0.02	2338.19	86.67

Tabel *Quality Rate*

Minggu	Total Reject (pcs)	Reject Mesin Printing (pcs)	Quality of Rate (%)
1	265356	13057	95.08
2	311565	10620	96.59
3	299131	9803	96.72
4	299018	10549	96.47
5	300052	8897	97.03
6	296357	8860	97.01
7	296343	8822	97.02
8	294362	10047	96.59
9	308478	9413	96.95
10	299087	9573	96.80
11	305950	8966	97.07
12	297357	9056	96.95
JUMLAH	6880756	248728	7497.92
RATA-RATA	88214.82	3188.82	96.13

Tabel *OEE*

Minggu	Availability (%)	Performace (%)	Quality of Rate (%)	Overall Equipment Effectivenes
1	0.93	0.92	0.95	80.60
2	0.93	0.90	0.97	80.11
3	0.92	0.87	0.97	77.02
4	0.92	0.86	0.96	76.79
5	0.92	0.87	0.97	77.51
6	0.92	0.86	0.97	76.53
7	0.92	0.86	0.97	76.54
8	0.92	0.85	0.97	75.69
9	0.93	0.88	0.97	79.61
10	0.92	0.86	0.97	77.07
11	0.94	0.87	0.97	79.06
12	0.93	0.85	0.97	76.75
JUMLAH	72.10613426	67.59961057	74.97917535	6007.06
RATA-RATA	0.92	0.87	0.96	77.01

Tabel *Six Big Loss breakdown*

Minggu	Total Breakdown (menit)	Loading Time (menit)	Breakdown (%)
1	400	7200	5.56
2	484	8640	5.60
3	550	8640	6.37
4	524	8640	6.06
5	530	8640	6.13
6	541	8640	6.26
7	539	8640	6.24
8	555	8640	6.42
9	482	8640	5.58
10	508	8640	5.88
11	419	8640	4.85
12	467	8640	5.41
JUMLAH	11598	197280	459.18
RATA-RATA	148.69	2529.23	5.89

Tabel Six Big Loss Set Up And Adjustment Losses

Minggu	Avaibility Time (menit)	Planned Downtime (menit)	Loading Time (menit)	Set-up and Adjustment Time (menit)	Set-up and Adjustment Loses (%)
1	7200	0	7200	135	1.88
2	8640	0	8640	160	1.85
3	8640	0	8640	165	1.91
4	8640	0	8640	154	1.78
5	8640	0	8640	138	1.60
6	8640	0	8640	140	1.62
7	8640	0	8640	154	1.78
8	8640	0	8640	132	1.53
9	8640	0	8640	123	1.42
10	8640	0	8640	142	1.64
11	8640	0	8640	133	1.54
12	8640	0	8640	143	1.66
JUMLAH	197280	0	197280	3303	130.21
RATA-RATA	2529.23	0.00	2529.23	42.35	1.67

Tabel Six Big Loss Idling and Minor Stoppages

Minggu	Actual Production Time (menit)	Operation Time (menit)	Non Productive Time (menit)	Loading Time (menit)	Idling and Minor Stoppages(%)
1	6530	6665	135	7200	1.88
2	7729	7996	267	8640	3.09
3	7686	7925	239	8640	2.77
4	7722	7962	240	8640	2.78
5	7752	7972	220	8640	2.55
6	7716	7959	243	8640	2.81
7	7655	7947	292	8640	3.38
8	7781	7953	172	8640	1.99
9	7858	8035	177	8640	2.05
10	7789	7990	201	8640	2.33
11	7885	8088	203	8640	2.35
12	7862	8030	168	8640	1.94
JUMLAH	177400	182379	4979	197280	198.10
RATA-RATA	2274.36	2338.19	63.83	2529.23	2.54

Tabel Six Big Loss Reduce Speed Loss

Minggu	Total Product Process (pcs)	Actual Production Time (menit)	Ideal Cycle Time (menit/pcs)	Ideal Production Time (menit)	Reduced Speed Time (menit)	Loading Time (menit)	Reduced Speed Loss (%)
1	265356	6530	0.02	5307.12	1222.88	7200	16.98
2	311565	7729	0.02	6231.30	1497.70	8640	17.33
3	299131	7686	0.02	5982.62	1703.38	8640	19.72
4	299018	7722	0.02	5980.36	1741.64	8640	20.16
5	300052	7752	0.02	6001.04	1750.96	8640	20.27
6	296357	7716	0.02	5927.14	1788.86	8640	20.70
7	296343	7655	0.02	5926.86	1728.14	8640	20.00
8	294362	7781	0.02	5887.24	1893.76	8640	21.92
9	308478	7858	0.02	6169.56	1688.44	8640	19.54
10	299087	7789	0.02	5981.74	1807.26	8640	20.92
11	305950	7885	0.02	6119.00	1766.00	8640	20.44
12	297357	7862	0.02	5947.14	1914.86	8640	22.16
JUMLAH	6880756	177400	1.56	137615.12	39784.88	197280	1579.10
RATA-RATA	88214.82	2274.36	0.02	1764.30	510.06	2529.23	20.24

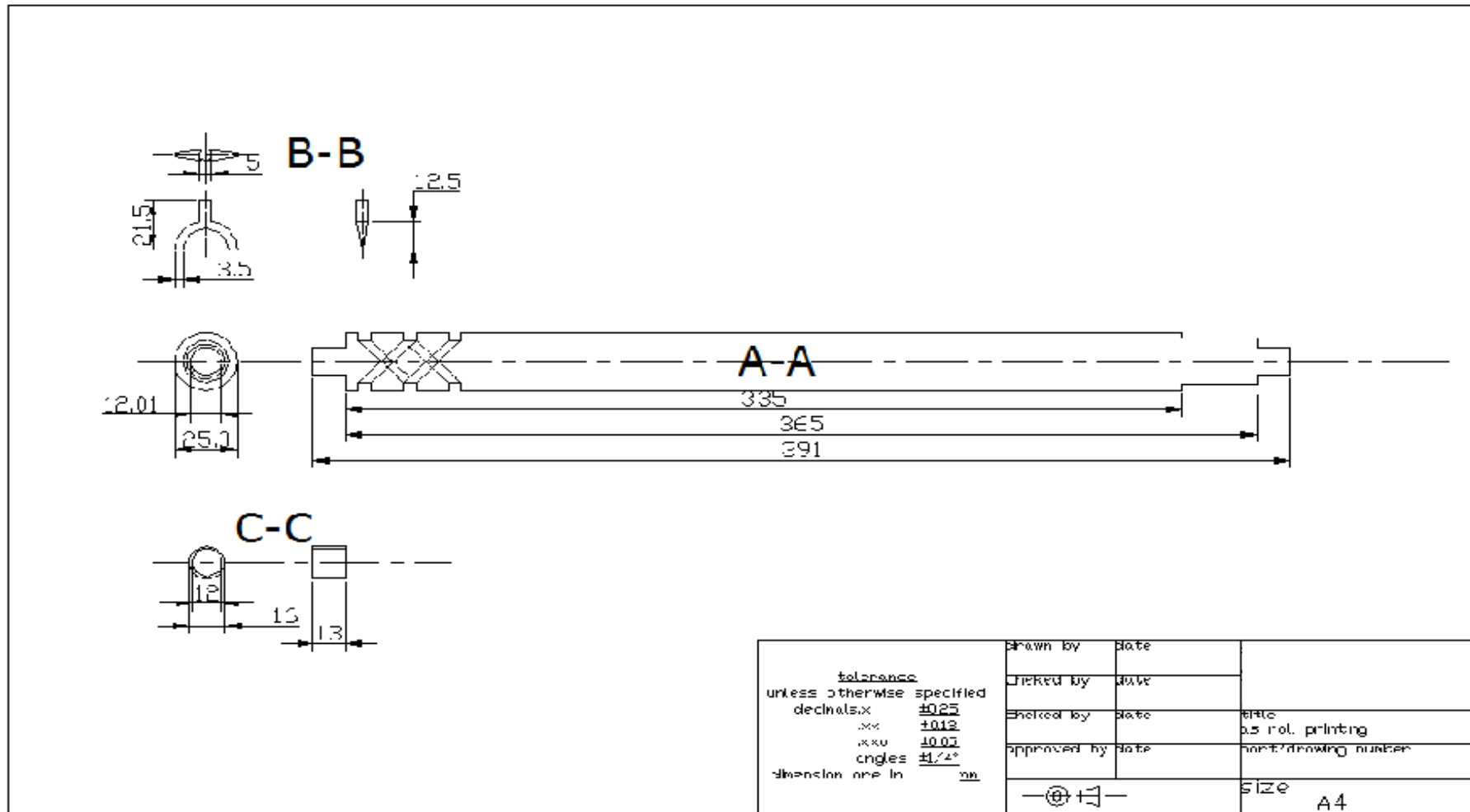
Tabel Six Big Loss Reject Loss

Minggu	Loading Time (menit)	Ideal Cycle Time (menit/pcs)	Reject (pcs)	Reject loss (%)
1	7200	0.02	13057	3.63
2	8640	0.02	12963	3.00
3	8640	0.02	12240	2.83
4	8640	0.02	13317	3.08
5	8640	0.02	12112	2.80
6	8640	0.02	12560	2.91
7	8640	0.02	12761	2.95
8	8640	0.02	12584	2.91
9	8640	0.02	13929	3.22
10	8640	0.02	13308	3.08
11	8640	0.02	14314	3.31
12	8640	0.02	14092	3.26
JUMLAH	197280	1.56	301417	237.25
RATA-RATA	2529.23	0.02	3864.32	3.04

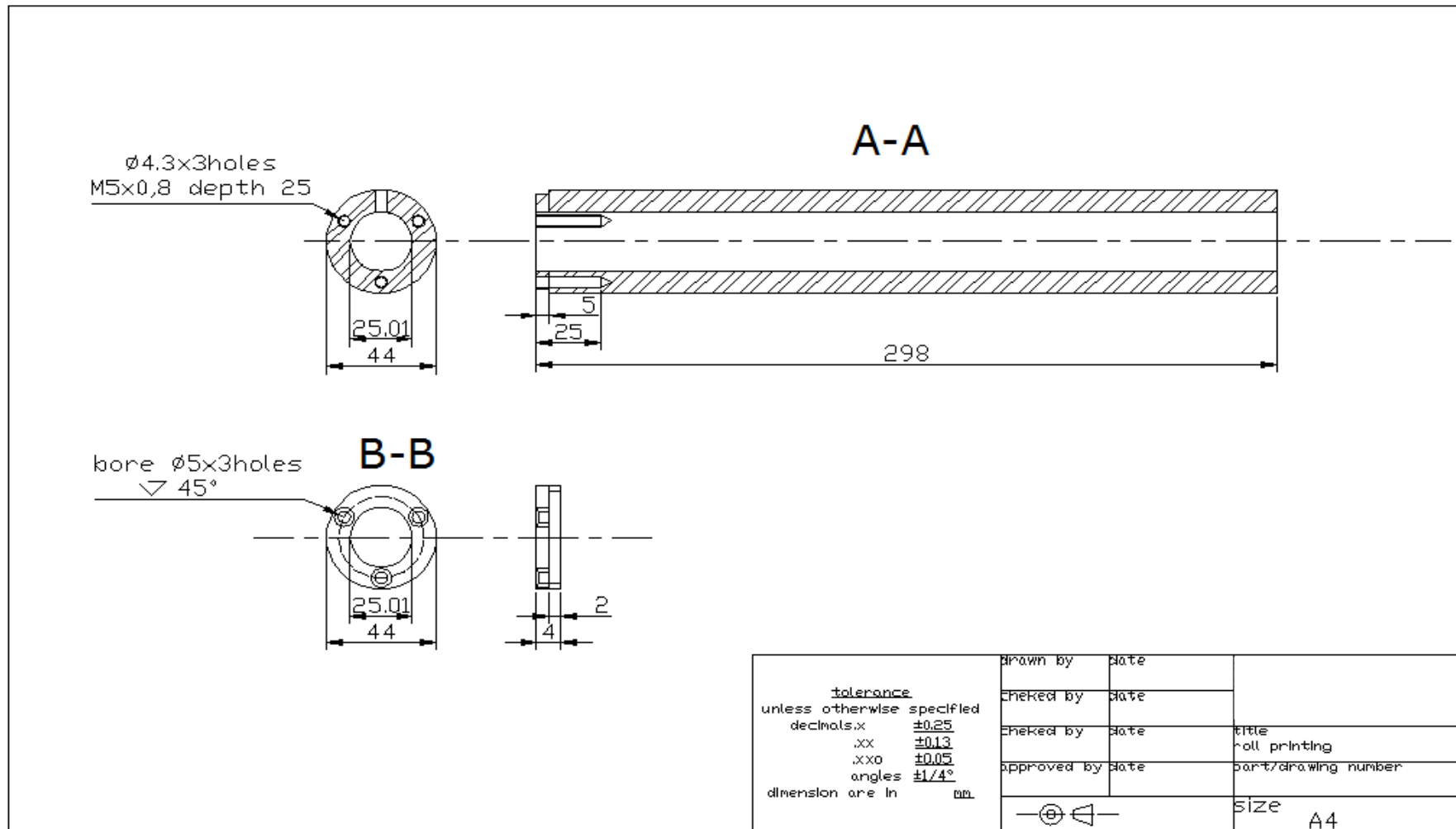
Tabel Six Big Loss Yield/scrap

Minggu	Loading Time (menit)	Ideal Cycle Time (menit/pcs)	Scrap (kg)	Yield/ Scrap Loss (%)
1	7200	0.02	0	0.00
2	8640	0.02	0	0.00
3	8640	0.02	0	0.00
4	8640	0.02	0	0.00
5	8640	0.02	0	0.00
6	8640	0.02	0	0.00
7	8640	0.02	0	0.00
8	8640	0.02	0	0.00
9	8640	0.02	0	0.00
10	8640	0.02	0	0.00
11	8640	0.02	0	0.00
12	8640	0.02	0	0.00
JUMLAH	197280	1.56	0	0
RATA-RATA	2529.23	0.02	0	0

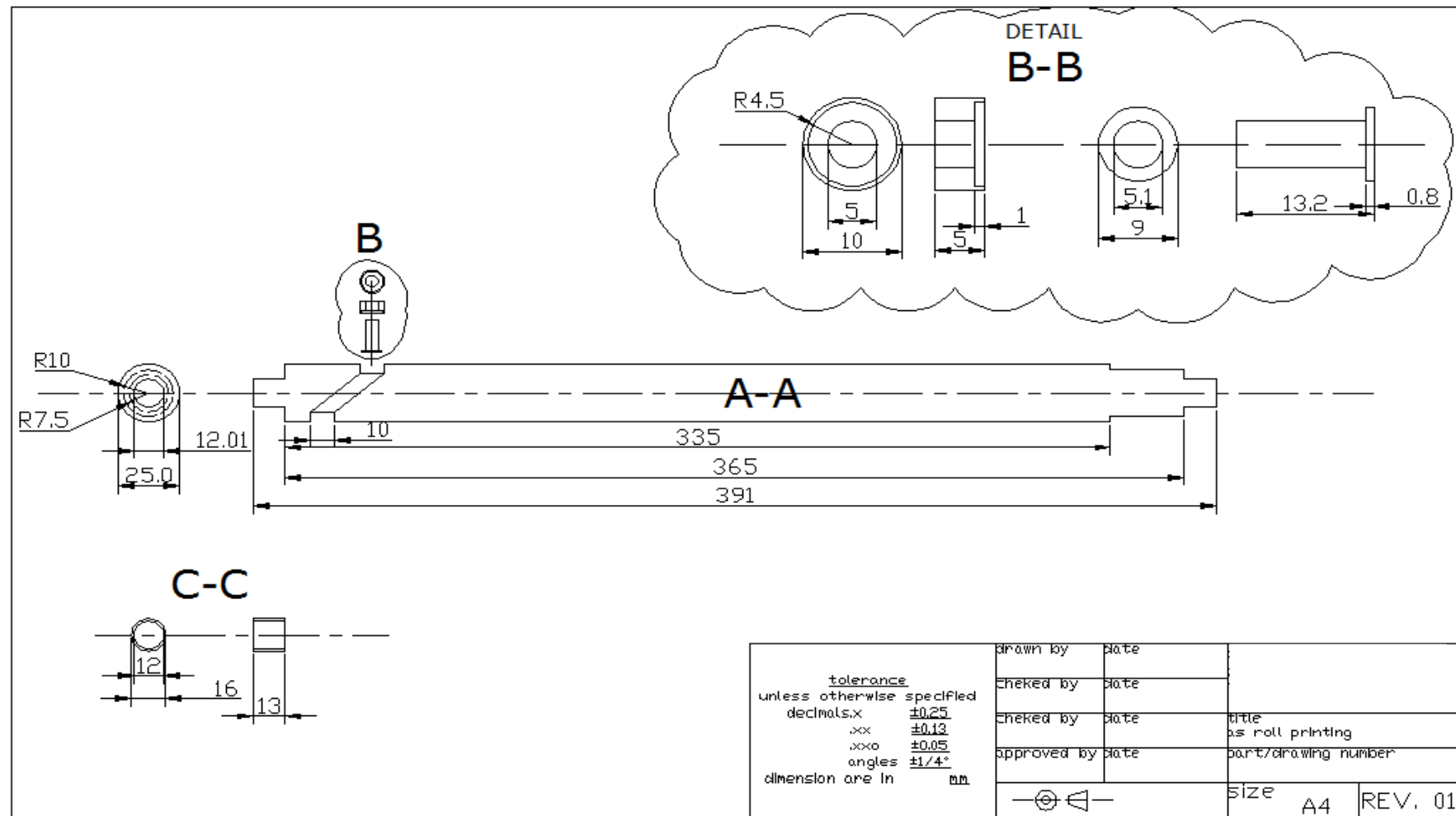
Gambar As Roll sebelum di Redesain



Gambar Roll Printing



Gambar As Roll sesudah Redesain



Tabel Cacat Produk Pengamatan ke 2

Minggu	Set Up	Breakdown	Mc. Press	Mc. Potong	Mc. Inner	Mc. Laquer	Mc. Print	Mesin Cap	Cek Akhir	Reject	Hasil
1	133	432	246	292	675	304	9084	257	4975	15833	322380
2	145	433	349	360	750	434	8935	273	4690	15791	329308
3	120	384	316	346	668	348	7641	267	4417	14003	327893
4	154	405	348	345	688	391	8424	277	3908	14381	336381
5	119	400	343	310	658	390	8057	234	3821	13813	338442
6	132	430	347	334	621	331	7218	249	3994	13094	324111
7	124	464	311	349	630	316	8985	231	3506	14328	333064
8	140	376	324	306	600	355	8358	235	3997	14175	333441
9	139	442	345	315	626	372	8676	215	3716	14265	318661
10	142	400	337	304	579	357	9866	225	3887	15555	322491
11	121	344	332	337	590	331	8790	240	3787	14407	331358
12	112	347	318	345	547	350	8982	234	3988	14764	327084

Tabel Availability

Minggu	Loading Time (menit)	Breakdown (menit)	Downtime (menit)	Set-up and Adjustment Time (menit)	Operation Time (menit)	Availability (%)
1	8640	432	565	133	8075	93.46
2	8640	433	578	145	8062	93.31
3	8640	384	504	120	8136	94.17
4	8640	405	559	154	8081	93.53
5	8640	400	519	119	8121	93.99
6	8640	430	562	132	8078	93.5
7	8640	464	588	124	8052	93.19
8	8640	376	516	140	8124	94.03
9	8640	442	581	139	8059	93.28
10	8640	400	542	142	8098	93.73
11	8640	344	465	121	8175	94.62
12	8640	347	459	112	8181	94.69
JUMLAH	103680	4857	6438	1581	97242	1125.5
RATA-RATA	8640	404.75	536.5	131.75	8103.5	93.79

Tabel Performance

Minggu	Total Product Processed (pcs)	Ideal Cycle Time (menit)	Operation Time (menit)	Performance (%)
1	327612	0.02	8208	79.83
2	334271	0.02	8207	81.46
3	332577	0.02	8256	80.57
4	340566	0.02	8081	84.29
5	335491	0.02	8121	82.62
6	328354	0.02	8078	81.3
7	336801	0.02	8052	83.66
8	337673	0.02	8124	83.13
9	322592	0.02	8059	80.06
10	326603	0.02	8098	80.66
11	335385	0.02	8175	82.05
12	331306	0.02	8181	80.99
JUMLAH	3989231	0.24	97640	980.62
RATA-RATA	332435.92	0.02	8136.67	81.72

Tabel Quality Of Rate

Minggu	Total Product Processed (pcs)	Reject Mesin Printing (pcs)	Quality of Rate (%)
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1	327612	9084	97.22721
2	334271	8935	97.32702
3	332577	7641	97.70249
4	340566	8424	97.52647
5	335491	8057	97.59845
6	328354	7218	97.80176
7	336801	8985	97.33225
8	337673	8358	97.52482
9	322592	8676	97.31053
10	326603	9866	96.97921
11	335385	8790	97.37913
12	331306	8982	97.28891
JUMLAH	3989231	103016	1168.9983
RATA-RATA	332435.92	8584.6667	97.42

Tabel OEE

minggu	Availability (%)	Performace (%)	Quality of Rate (%)	Overall Equipment Effectiveness (%)
1	93.46065	79.82749	97.22721	72.53858
2	93.31019	81.45997	97.32702	73.97871
3	94.16667	80.56613	97.70249	74.1234
4	93.53009	84.28808	97.52647	76.88472
5	93.99306	82.62308	97.59845	75.79491
6	93.49537	81.29587	97.80176	74.33704
7	93.19444	83.65648	97.33225	75.88333
8	94.02778	83.12974	97.52482	76.23032
9	93.27546	80.05758	97.31053	72.66574
10	93.72685	80.66263	96.97921	73.31875
11	94.61806	82.05138	97.37913	75.60069
12	94.6875	80.99401	97.28891	74.61204
JUMLAH	1125.49	980.61	1169.00	895.97
RATA-RATA	93.79	81.72	97.42	74.66

Tabel Six Big Loss Reduce Speed Loss

Minggu	Total Product Process (pcs)	Actual Production Time (menit)	Ideal Cycle Time (menit/pcs)	Ideal Production Time (menit)	Reduced Speed Time (menit)	Loading Time (menit)	Reduced Speed Loss (%)
1	327612	7845	0.02	6552.24	1292.76	8640	14.96
2	334271	7671	0.02	6685.42	985.58	8640	11.41
3	332577	7794	0.02	6651.54	1142.46	8640	13.22
4	340566	7816	0.02	6811.32	1004.68	8640	11.63
5	335491	7875	0.02	6709.82	1165.18	8640	13.49
6	328354	7967	0.02	6567.08	1399.92	8640	16.2
7	336801	7920	0.02	6736.02	1183.98	8640	13.7
8	337673	7967	0.02	6753.46	1213.54	8640	14.05
9	322592	7940	0.02	6451.84	1488.16	8640	17.22
10	326603	7787	0.02	6532.06	1254.94	8640	14.52
11	335385	7970	0.02	6707.7	1262.3	8640	14.61
12	331306	7778	0.02	6626.12	1151.88	8640	13.33
JUMLAH	3989231	94330	0.24	79784.62	14545.38	103680	168.34
RATA-RATA	332435.92	7860.83	0.02	6648.72	1212.12	8640	14.03

Tabel Six Big Loss Idling and Minor Stoppages

Minggu	Actual Production Time (menit)	Operation Time (menit)	Non Productive Time (menit)	Loading Time (menit)	Idling and Monir Stoppages (%)
1	7845	8075	230	8640	2.66
2	7671	8062	391	8640	4.53

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3	7794	8136	342	8640	3.96
4	7816	8081	265	8640	3.07
5	7875	8121	246	8640	2.85
6	7967	8078	111	8640	1.28
7	7920	8052	132	8640	1.53
8	7967	8124	157	8640	1.82
9	7940	8059	119	8640	1.38
10	7787	8098	311	8640	3.6
11	7970	8175	205	8640	2.37
12	7778	8181	403	8640	4.66
JUMLAH	94330	97242	2912	103680	33.71
RATA-RATA	7860.83	8103.50	242.67	8640.00	2.81