

LAMPIRAN

Lampiran 1

Perhitungan Down Time Losses Bulan November-Desember 2002

Periode	Jenis mesin	Waktu (Menit)			Down Time (menit)
		Penyetelan	Penyesuaian	Kerusakan	
November	Depalletizer	230	164	350	744
	Decrater	223	120	285	628
	Bottle Washer	572	200	2.439	3.211
	EBI	384	120	557	1.061
	Filler	1.102	225	1.150	2.477
	Crowner	1.087	185	300	1.572
	Video Jet	100	90	165	355
	Crater	900	175	880	1.955
	Palletizer	745	155	553	1.453
Desember	Depalletizer	233	179	580	992
	Decrater	272	140	465	877
	Bottle Washer	674	245	3.910	4.829
	EBI	352	140	445	937
	Filler	1.071	270	2.280	3.621
	Crowner	875	210	325	1.410
	Video Jet	115	80	195	390
	Crater	875	175	526	1.576
	Palletizer	740	150	961	1.851

Sumber : data primer yang diolah

mpiran 2
 hitung Speed Losses Bulan November-Desember 2002

Periode	Jenis mesin	Waktu (Menit)				Speed Losses (menit)
		Pelumasan	Pembersihan	Pengecekan	Kekosongan	
November	Depalletizer	165	425	335		925
	Decrater	220	350	300		870
	Bottle Washer	385	525	355		1.265
	EBI	225	325	200		750
	Filler	900	475	340	175	1.890
	Crowner	885	195	205		1.285
	Video Jet	75	225	100		400
	Crater	745	325	245		1.315
	Palletizer	595	275	215		1.085
Desember	Depalletizer	175	350	250		775
	Decrater	275	275	210		760
	Bottle Washer	400	475	375		1.250
	EBI	260	375	200		835
	Filler	1.050	400	380	150	1.980
	Crowner	965	175	230		1.370
	Video Jet	100	245	90		435
	Crater	745	400	260		1.405
	Palletizer	600	425	215		1.240

Sumber : data primer yang diolah

Lampiran 3

Perhitungan Waktu Operasi Bulan November-Desember 2002

Periode	Jenis mesin	Waktu Beban (Menit)	Down Time (menit)	Waktu Operasi (menit)
November	Depalletizer	32.400	744	31.656
	Decrater	32.400	628	31.772
	Bottle Washer	32.400	3.211	29.189
	EBI	32.400	1.061	31.339
	Filler	32.400	2.477	29.923
	Crowner	32.400	1.572	30.828
	Video Jet	32.400	355	32.045
	Crater	32.400	1.955	30.445
	Palletizer	32.400	1.453	30.947
Rata-rata				30.905
Desember	Depalletizer	32.400	992	31.408
	Decrater	32.400	877	31.523
	Bottle Washer	32.400	4.829	27.571
	EBI	32.400	937	31.463
	Filler	32.400	3.621	28.779
	Crowner	32.400	1.410	30.990
	Video Jet	32.400	390	32.010
	Crater	32.400	1.576	30.824
	Palletizer	32.400	1.851	30.549
Rata-rata				30.569

Lampiran 4

Analisis Availability Bulan November – Desember 2002

Bulan November

$$\text{Depalletizer} = \frac{31.656}{32.400} \times 100\%$$

$$= 97,70\%$$

$$\text{Decrater} = \frac{31.772}{32.400} \times 100\%$$

$$= 98,06\%$$

$$\text{Bottle Washer} = \frac{29.189}{32.400} \times 100\%$$

$$= 90,09\%$$

$$\text{EBI} = \frac{31.339}{32.400} \times 100\%$$

$$= 96,73\%$$

$$\text{Filler} = \frac{29.923}{32.400} \times 100\%$$

$$= 92,35\%$$

$$\text{Crownier} = \frac{30.828}{32.400} \times 100\%$$

$$= 95.15\%$$

$$\text{Video Jet} = \frac{32.045}{32.400} \times 100\%$$

$$= 98,90$$

$$\text{Crater} = \frac{30.445}{32.400} \times 100\%$$

$$= 93,97\%$$

$$\text{Palletizer} = \frac{30.947}{32.400} \times 100\%$$

$$= 95,52\%$$

Bulan Desember

$$\text{Depalletizer} = \frac{31.408}{32.400} \times 100\%$$

$$= 96,94\%$$

$$\text{Decrater} = \frac{31.523}{32.400} \times 100\%$$

$$= 97,29\%$$

$$\text{Bottle Washer} = \frac{27.571}{32.400} \times 100\%$$

$$= 85,10\%$$

$$\text{EBI} = \frac{31.463}{32.400} \times 100\%$$

$$= 97,11\%$$

$$\text{Filler} = \frac{28.779}{32.400} \times 100\%$$

$$= 88,82\%$$

$$\text{Crownner} = \frac{30.990}{32.400} \times 100\%$$

$$= 95,65\%$$

$$\text{Video Jet} = \frac{32.010}{32.400} \times 100\%$$

$$= 98,80\%$$

$$\text{Crater} = \frac{30.824}{32.400} \times 100\%$$

$$= 95,14\%$$

$$\text{Palletizer} = \frac{30.549}{32.400} \times 100\%$$

$$= 94,29\%$$

Lampiran 5

Analisis Efisiensi Performa

Bulan November

$$\begin{aligned} \text{Efisiensi Performa} &= \frac{0,00167 \text{ menit/botol} \times 14.936.449 \text{ botol}}{30.905} \quad \times 100\% \\ &= 80,71 \% \end{aligned}$$

Bulan Desember

$$\begin{aligned} \text{Efisiensi Performa} &= \frac{0,00167 \text{ menit/botol} \times 12.269.239 \text{ botol}}{30.569} \quad \times 100\% \\ &= 64,03 \% \end{aligned}$$

Lampiran 6

Produksi dan Produk Cacat Selama Bulan November-Desember 2002

Periode	Waktu	Jumlah Produksi	Jumlah Produk Cacat (Botol)	Jumlah Produk Cacat (%)
November	Minggu 1	1.152.456	7.416	0,64
	Minggu 2	3.751.805	15.678	0,42
	Minggu 3	3.873.088	13.968	0,37
	Minggu 4	3.016.676	9.685	0,32
	Minggu 5	3.142.424	13.672	0,44
Total		14.936.449	60.419	
Desember	Minggu 1	822.552	3.622	0,44
	Minggu 2	1.755.306	6.209	0,35
	Minggu 3	4.801.556	15.785	0,33
	Minggu 4	2.968.556	9.778	0,33
	Minggu 5	1.921.269	6.088	0,32
Total		12.269.239	41.482	

Sumber : data sekunder yang diolah

Lampiran 7

Analisis Tingkat Mutu Produk

Bulan November

$$\begin{aligned} \text{Tingkat Mutu Produk} &= \frac{14.936.449 - 60.419}{14.936.449} \times 100\% \\ &= 99,59\% \end{aligned}$$

Bulan Desember

$$\begin{aligned} \text{Tingkat Mutu Produk} &= \frac{12.269.239 - 41.482}{12.269.239} \times 100\% \\ &= 99,66\% \end{aligned}$$