

DAFTAR GAMBAR

Gambar I.1. Produk <i>Rubber Bellow</i>	2
Gambar I.2 <i>Layout</i> Mesin Lini Produk <i>Rubber Bellow</i>	3
Gambar I.3 Grafik Waktu Proses Pada Lini <i>Rubber Bellow</i> Dalam Pembuatan Satu Produk Jadi.....	4
Gambar II.1 Klasifikasi Perawatan (<i>Maintenance</i>)	13
Gambar II.2 <i>Reliability Bath Tub Curve</i>	16
Gambar II.3 <i>Functional Block Diagram</i> (FBD).....	18
Gambar II.4 Diagram Blok Sistem Seri	25
Gambar II.5 Diagram Blok Keandalan Dari n Buah Komponen	26
Gambar II.6 Diagram Blok Sistem Pararel	26
Gambar II.7 Diagram Blok Keandalan Dari n Buah Komponen	27
Gambar II.8 Sistem Dengan Susunan <i>Paralel</i> dan Sistem Dengan	28
Gambar II.9 Blok Diagram <i>Standby Redudancy</i> dengan	30
Gambar II.10 RBD Kombinasi Seri dan Paralel	31
Gambar II.11 <i>Time Breakdown Scheme</i>	32
Gambar II.12 <i>Availability Block Diagram</i> n Buah Komponen Susunan Seri.....	35
Gambar II.13 <i>Availability Block Diagram</i> n Buah Komponen Susunan Paralel ..	35
Gambar II.14 Segitiga Pascal	36
Gambar II.15 Mencari Tingkat <i>Failure</i> dengan Menggunakan <i>Simple Models</i> dan <i>Arithmetic</i>	39
Gambar II.16 Mencari <i>Time Lost</i> dengan Menggunakan <i>Failure Rates</i> dan <i>Corrective Time</i>	39
Gambar II.17 Mencari <i>Money Lost</i> dari <i>System Failures</i> dan <i>Set Priorities</i>	40
Gambar II.18 <i>Cause-Effect Diagram</i>	41
Gambar III.1 Model Konseptual	42
Gambar III.2 Sistematis Pemecahan Masalah.....	46
Gambar IV.1 <i>Operation Flow</i> Lini Produksi <i>Rubber Bellow</i>	53
Gambar IV.2 <i>Fuctional Block Diagram Rubber Bellow</i>	54
Gambar IV.3 RBD <i>Rubber Bellow</i> Level 1	59
Gambar IV.4 RBD <i>Rubber Bellow</i> Level 2.....	59

Gambar IV.5 RBD <i>Rubber Bellow</i> level 3	60
Gambar IV.6 <i>Fuctional System</i> Mesin Callander dan Callander Ekstruder	60
Gambar IV.7 RBD <i>Rubber Bellow</i> Level 4	61
Gambar IV.8 <i>Fuctional System</i> Mesin Press Inkaba 1 dan Press Inkaba 3	61
Gambar IV.9 RBD <i>Rubber Bellow</i> Level 5	62
Gambar IV.10 <i>Reliability Block Diagram Rubber Bellow</i> Kanan & Kiri (1)	62
Gambar IV.11 <i>Reliability Block Diagram Rubber Bellow</i> Atas (1)	62
Gambar IV.12 <i>Reliability Block Diagram Rubber Bellow</i> Kanan & Kiri (2)	71
Gambar IV.13 <i>Standby System</i> Mesin Kneader 1 dan Kneader 2	74
Gambar IV.14 Sistem Pararel Mesin Open Mill 3 dan Open Mill 4	75
Gambar IV.15 <i>Interface</i> Pembuatan RBD Pada <i>Software</i> Blocksim 8	78
Gambar IV.16 RBD Blocksim <i>Rubber Bellow</i> Kanan & Kiri	79
Gambar IV.17 RBD Blocksim <i>Rubber Bellow</i> Atas	79
Gambar IV.18 <i>Block Properties</i> Mesin Potong Karet	80
Gambar IV.19 <i>Window Universal Reliability Definition (URD)</i>	82
Gambar IV.20 <i>Interface URD Corrective Task</i>	83
Gambar IV.21 <i>Interface URD Sheduled Task</i>	85
Gambar IV.22 <i>Maintenance Crew Window</i>	86
Gambar IV.23 Simulasi Blocksim 8 RBD <i>Rubber Bellow</i> Kanan & Kiri	88
Gambar V.1 Grafik <i>Analytical Reliability</i> Sistem Selama Sebulan	96
Gambar V.2 Grafik <i>Reliability Simulation Approach</i>	96
Gambar V.3 Grafik Nilai <i>Analytical Maintainability</i>	98
Gambar V.4 Grafik <i>Simulation System Maintainability</i>	98
Gambar V.5 Grafik <i>Inherent Availability</i> Setiap Mesin	100
Gambar V.6 Grafik <i>Analytical Inherent Availability System</i>	100
Gambar V.7 Grafik <i>Simulation Inherent availability System</i>	101
Gambar V.8 Grafik <i>Operational availability</i> Setiap Mesin	102
Gambar V.9 Grafik <i>Analytical Operational availability System</i>	103
Gambar V.10 <i>Simulation Operational Availability System</i>	104
Gambar V.11 Selisih <i>Analytical Availability</i>	105
Gambar V.12 Selisish <i>Simulation Availability</i>	105
Gambar V.13 Grafik Hubungan <i>Number Failure</i> dengan <i>Failure Rate</i>	110

Gambar V.14 Grafik Hubungan <i>Number Failure</i> dengan <i>MTBF</i>	110
Gambar V.15 <i>Time Lost Based on Corrective Time</i>	112
Gambar V.16 <i>Time Lost Based on Downtime</i>	112
Gambar V.17 <i>Money Lost Based on Corrective Time / Failure</i>	114
Gambar V.18 <i>Money Lost Based on Downtime / Failure</i>	115
Gambar V.19 <i>Cause and Effect Diagram Reliability Rendah & Nilai COUR yang tinggi</i>	120