



Correlations

	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10	p11	p12	p13	p14	p15	p16	p17	p18	p19	p20	p21	p22	TOTAL	
p3	Pears on Correlation Sig. (2-tailed) N	1.000* 0.000 5	.791 .111 5	1 .021 5	.932* .057 5	.868 .056 5	1.000* 0.000 5	.829 .083 5	.829 .083 5	.943* .016 5	.932* .021 5	.784 .116 5	.943* .016 5	.868 .057 5	.784 .116 5	.791 .111 5	.791 .111 5	.663 .222 5	.943* .016 5	.784 .116 5	.784 .116 5	.943* .016 5	.916* .029 5	
p4	Pears on Correlation Sig. (2-tailed) N	.932* .021 5	.930* .022 5	.932* .021 5	1 .026 5	.921* .042 5	.891* .021 5	.932* .005 5	.976** .005 5	.976** .005 5	.942* .017 5	1.000* 0.000 5	.923* .025 5	.942* .017 5	.921* .026 5	.923* .025 5	.930* .022 5	.930* .022 5	.881* .049 5	.942* .017 5	.923* .025 5	.923* .025 5	.942* .017 5	.993** .001 5
p5	Pears on Correlation Sig. (2-tailed) N	.868 .057 5	.968** .007 5	.868 .057 5	.921* .026 5	1 .053 5	.873 .057 5	.868 .057 5	.892* .042 5	.892* .042 5	.840 .075 5	.921* .026 5	.881* .049 5	.840 .075 5	1.000* 0.000 5	.881* .049 5	.968** .007 5	.968** .007 5	.875 .052 5	.840 .075 5	.881* .049 5	.881* .049 5	.840 .075 5	.947* .014 5
p6	Pears on Correlation Sig. (2-tailed) N	.869 .056 5	.845 .071 5	.869 .056 5	.891* .042 5	.873 .057 5	1 .053 5	.869 .057 5	.846 .071 5	.846 .071 5	.963** .009 5	.891* .042 5	.943* .016 5	.733 .159 5	.873 .057 5	.943* .016 5	.845 .071 5	.845 .071 5	.764 .133 5	.963** .009 5	.943* .016 5	.943* .016 5	.733 .159 5	.925* .024 5

Correlations

	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10	p11	p12	p13	p14	p15	p16	p17	p18	p19	p20	p21	p22	TOTAL	
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
p7	Pears on Correlation Sig. (2-tailed) N	1.00* .0000 5	.791 .111 5	1.00* .0000 5	.932* .021 5	.868 .057 5	.869 .056 5	.821 .083 5	.829 .083 5	.943* .016 5	.932* .021 5	.784 .116 5	.943* .016 5	.868 .057 5	.784 .116 5	.791 .111 5	.791 .111 5	.663 .222 5	.943* .016 5	.784 .116 5	.784 .116 5	.943* .016 5	.916* .029 5	
p8	Pears on Correlation Sig. (2-tailed) N	.829 .083 5	.953* .012 5	.829 .083 5	.976** .005 5	.892* .042 5	.846 .071 5	.829 .083 5	1.00* 0.000 5	.879* .050 5	.976** .005 5	.946* .015 5	.879* .050 5	.892* .042 5	.946* .015 5	.953* .012 5	.953* .012 5	.954* .012 5	.879* .050 5	.946* .015 5	.946* .015 5	.879* .050 5	.974** .005 5	
p9	Pears on Correlation Sig. (2-tailed) N	.829 .083 5	.953* .012 5	.829 .083 5	.976** .005 5	.892* .042 5	.846 .071 5	.829 .083 5	1.00* 0.000 5	.879* .050 5	.976** .005 5	.946* .015 5	.879* .050 5	.892* .042 5	.946* .015 5	.953* .012 5	.953* .012 5	.954* .012 5	.879* .050 5	.946* .015 5	.946* .015 5	.879* .050 5	.974** .005 5	
p10	Pears on Correlation Sig. (2-tailed) N	.943* .016 5	.813 .094 5	.943* .016 5	.942* .017 5	.840 .075 5	.963** .009 5	.943* .016 5	.879* .050 5	.879* .050 5	1.00* 0.000 5	.942* .017 5	.908* .033 5	.853 .066 5	.840 .075 5	.908* .033 5	.813 .094 5	.813 .094 5	.735 .157 5	1.00* 0.000 5	.908* .033 5	.908* .033 5	.853 .066 5	.944* .016 5

Correlations

	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10	p11	p12	p13	p14	p15	p16	p17	p18	p19	p20	p21	p22	TOTAL	
)																								
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
p11 Pears on Correlation Sig. (2-tailed)	.932*	.930*	.932*	1.000*	.921*	.891*	.932*	.976**	.976**	.942*	1	.923*	.942*	.921*	.923*	.930*	.930*	.881*	.942*	.923*	.923*	.942*	.993**	
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
p12 Pears on Correlation Sig. (2-tailed)	.784	.930*	.784	.923*	.881*	.943*	.784	.946*	.946*	.908*	.923*	1	.740	.881*	1.000*	.930*	.930*	.921*	.908*	1.000*	1.000*	.740	.954*	
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
p13 Pears on Correlation Sig. (2-tailed)	.943*	.813	.943*	.942*	.840	.733	.943*	.879*	.879*	.853	.942*	.740	1	.840	.740	.813	.813	.735	.853	.740	.740	1.000*	.903*	
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
p14 Pears on Correlation	.868	.968**	.868	.921*	1.000*	.873	.868	.892*	.892*	.840	.921*	.881*	.840	1	.881*	.968**	.968**	.875	.840	.881*	.881*	.840	.947*	

Correlations

	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10	p11	p12	p13	p14	p15	p16	p17	p18	p19	p20	p21	p22	TOTAL	
Sig. (2-tailed)	.057	.007	.057	.026	0.000	.053	.057	.042	.042	.075	.026	.049	.075		.049	.007	.007	.052	.075	.049	.049	.075	.075	.014
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pears on Correlation	.784	.930*	.784	.923*	.881*	.943*	.784	.946*	.946*	.908*	.923*	1.000*	.740	.881*	.931*	.930*	.921*	.908*	1.000*	1.000*	1.000*	.740	.954*	
Sig. (2-tailed)	.116	.022	.116	.025	.049	.016	.116	.015	.015	.033	.025	0.000	.153	.049		.022	.022	.026	.033	0.000	0.000	.153	.012	
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pears on Correlation	.791	1.000*	.791	.930*	.968**	.845	.791	.953*	.953*	.813	.930*	.930*	.813	.968**	.930*	1.000*	.968**	.813	.930*	.930*	.813	.955*		
Sig. (2-tailed)	.111	0.000	.111	.022	.007	.071	.111	.012	.012	.094	.022	.022	.094	.007		0.000	.007	.094	.022	.022	.094	.011		
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pears on Correlation	.791	1.000*	.791	.930*	.968**	.845	.791	.953*	.953*	.813	.930*	.930*	.813	.968**	.930*	1.000*	1.000*	.968**	.813	.930*	.930*	.813	.955*	
Sig. (2-tailed)	.111	0.000	.111	.022	.007	.071	.111	.012	.012	.094	.022	.022	.094	.007		0.000	.007	.094	.022	.022	.094	.011		
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pears on Correlation	.663	.968**	.663	.881*	.875	.764	.663	.954*	.954*	.735	.881*	.921*	.735	.875	.921*	.968**	.968**	1.000*	.735	.921*	.921*	.735	.902*	



Correlations

	p1	p2	p3	p4	p5	p6	p7	p8	p9	p10	p11	p12	p13	p14	p15	p16	p17	p18	p19	p20	p21	p22	TOTAL	
Pearson Correlation	.943*	.813	.943*	.942*	.840	.733	.943*	.879*	.879*	.853	.942*	.740	1.000*	.840	.740	.813	.813	.735	.853	.740	.740	1	.903*	
Sig. (2-tailed)	.016	.094	.016	.017	.075	.159	.016	.050	.050	.066	.017	.153	0.000	.075	.153	.094	.094	.157	.066	.153	.153		.036	
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pearson Correlation	.916*	.955*	.916*	.993**	.947*	.925*	.916*	.974**	.974**	.944*	.993**	.954*	.903*	.947*	.954*	.955*	.955*	.902*	.944*	.954*	.954*	.903*	1	
Sig. (2-tailed)	.029	.011	.029	.001	.014	.024	.029	.005	.005	.016	.001	.012	.036	.014	.012	.011	.011	.036	.016	.012	.012	.036		
N	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Dasar pengambilan keputusan dalam uji validitas

1. Jika nilai R hitung > R tabel, maka *item* pertanyaan atau pernyataan dalam kuesioner berkorelasi signifikan terhadap skor, sehingga dinyatakan valid
2. Jika nilai R hitung < R tabel, maka *item* pertanyaan atau pernyataan dalam kuesioner tidak berkorelasi signifikan terhadap skor, sehingga dinyatakan tidak valid

Dengan demikian jika dilihat nilai seluruh R hitung (Pearson Correlation) pada tabel di atas, yang telah ditandai dengan warna kuning telah lebih dari R tabel yaitu 0,878 (dengan n:5). Sehingga seluruh *item* kuesioner adalah dinyatakan valid atau layak digunakan untuk penelitian.





## 2. Hasil Uji Reliabilitas

Setelah melakukan uji validasi, selanjutnya peneliti perlu melakukan uji reliabilitas untuk memastikan tingkat kepercayaan kuesioner yang dipakai memang benar-benar terpercaya sehingga hasilnya dapat digunakan tanpa ada keraguan. Berikut ini hasil Uji Reliabilitas yang dilakukan menggunakan *software* SPSS:

Cronbach's Alpha	N of Items
.992	22

Dalam buku V. Wiratna Sujarweni. 2014. SPSS untuk Penelitian. Yogyakarta : Pustaka Baru Press. Hal-193. Menjelaskan bahwa uji realibilitas bisa dilakukan baik untuk setiap butir pertanyaan atau secara keseluruhan dalam sebuah kuesioner. Dasar pengambilan keputusannya:

1. Jika nilai Cronbach's Alpha  $> 0,6$  maka kuesioner dinyatakan reliabel atau konsisten
2. Dan jika nilai Cronbach's Alpha  $< 0,6$  maka kuesioner dinyatakan tidak reliabel atau tidak konsisten

Jumlah varian total Kriteria koefisien reliabilitas menurut Guilford (Ruseffendi, 2005:160) adalah sebagai berikut :

Nilai	Keterangan
$r_{11} < 0,20$	Sangat rendah
$0,20 \leq r_{11} < 0,40$	Rendah
$0,40 \leq r_{11} < 0,70$	Sedang
$0,70 \leq r_{11} < 0,90$	Tinggi
$0,90 \leq r_{11} < 1,00$	Sangat tinggi

Gambar 1. Nilai Koefisien Reliabilitas

Sumber: (Guilford, 1956)

Dari literatur di atas dapat dikatakan bahwa hasil kuesioner yang diperoleh telah reliabel atau konsisten karena nilai Cronbach's Alpha yang diperoleh yaitu 0.992 atau lebih dari 0.6.

## LAMPIRAN 2

### 1. Penampakan Kondisi Area Kerja Produksi Divisi Astoetik



Gambar 1. Area pemotongan dan pembentukan bodi



Gambar 1. Area perakitan



Gambar 2. Area penyimpanan WIP dan peralatan



Gambar 3. Area penyimpanan bahan baku dan peralatan



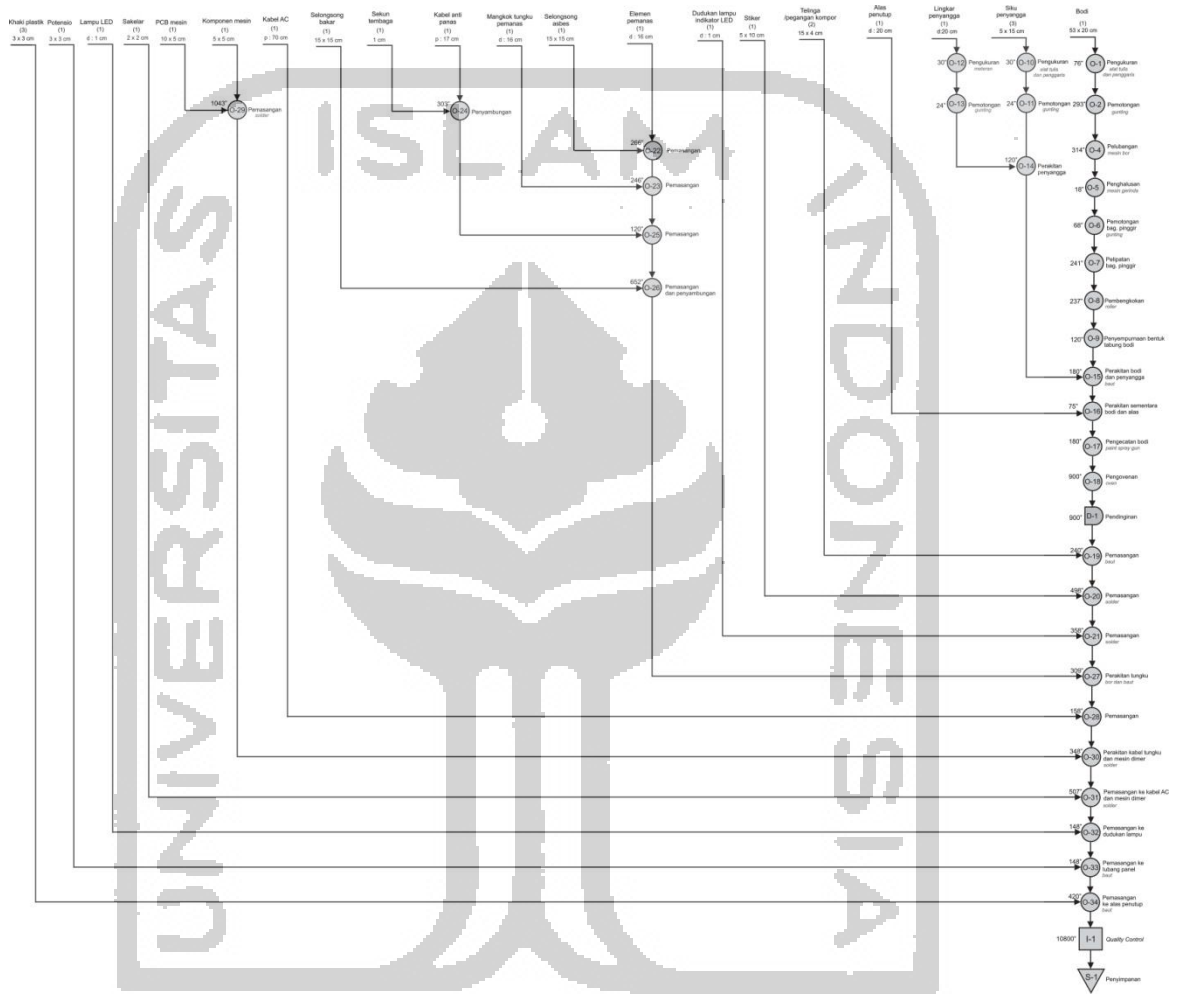
Gambar 4. Area Packing



Gambar 5. Area Penyimpanan peralatan dan dispenser

### LAMPIRAN 3

#### 1. Operation Process Chart



## LAMPIRAN 4

Menghitung Waktu Standar

Waktu Proses (detik)	Waktu Normal (detik)	Waktu Standar (detik)
136	152.320	227.343
293	328.160	489.791
48	53.760	80.239
314	351.680	524.896
18	20.160	30.090
68	76.160	113.672
241	269.920	402.866
237	265.440	396.179
5	5.600	8.358
139	155.680	232.358
179	200.480	299.224
4	4.480	6.687
900	1008.000	1504.478
9	10.080	15.045
12	13.440	20.060
126	141.120	210.627
140	156.800	234.030
246	275.520	411.224
303	339.360	506.507
255	285.600	426.269
397	444.640	663.642
4	4.480	6.687
405	453.600	677.015
638	714.560	1066.507
5	5.600	8.358
498	557.760	832.478
358	400.960	598.448
309	346.080	516.537
158	176.960	264.119
348	389.760	581.731
236	264.320	394.507
271	303.520	453.015
148	165.760	247.403
148	165.760	247.403
180	201.600	300.896

Waktu Proses (detik)	Waktu Normal (detik)	Waktu Standar (detik)
240	268.800	401.194
21	23.520	35.104
10800	12096.000	18053.731

**Rumus Waktu Normal : Waktu Proses x Rating Factor**

Rating Factor yang digunakan

Faktor	Kelas	Lambang	Penyesuaian
Keterampilan	Baik	C1	+0.06
Usaha	Baik	C1	+0.05
Kondisi	Kurang	D	0
Ketetapan	Baik	C	+0.01
<b>Jumlah</b>			<b>0.12</b>

Sumber: (Idris *et al.*, 2016)

**Rumus Waktu Standar : Waktu Normal x 100% / 100% - Allowance**

Allowance yang digunakan

ALLOWANCE		Persentase (%)
Kelonggaran Melepaskan Lelah	<b>Kelonggaran Kebutuhan Pribadi :</b>	
	- Kamar mandi	2
	- Minum	2
	- Ngobrol (merokok)	3
	<b>Kelonggaran Kelelahan Dasar :</b>	
	- Kelonggaran Allowance	4
	- Kedudukan Normal	4
	- Menggunakan Kekuatan	2
	- Keadaan Penerangan	4
	- Keadaan Udara	2
	- Ketegangan Penglihatan	2
	- Ketegangan Pendengaran	0
	- Ketegangan Mental	2
	- Keadaan Mental	1
- Keadaan Fisik	2	
<b>Jumlah</b>	<b>30</b>	

Sumber: (Idris *et al.*, 2016)