

Lampiran 1. Record Pengambilan Data Mesin Seamer.

RECORD HASIL SETTING MESIN SEAMER VARIN-41											
NO :	1	Tanggal :	03/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0,10 mm		Tekanan spring lifter (BPP) :				1200 N		
	Kerapatan roll samping 2nd roll :		1,10 mm								
	Standart			1	2	3					
Can Height	CAH	39,45 mm ± 0,30	39,63	39,58	39,61	39,67	39,70	39,62	39,55	39,66	39,69
Countersink	CS	4,80 mm ± 0,25	4,80	4,83	4,78	4,86	4,83	4,85	4,81	4,85	4,87
Seam Width	W	2,90 mm ± 0,15	2,94	2,97	2,95	2,93	2,96	2,94	2,98	2,96	2,93
			Min-Max : 2,93 - 3,00		Min-Max : 2,91 - 2,99		Min-Max : 2,91 - 2,98				
Seam Thickness	T	1,22 mm ± 0,10	1,20	1,23	1,24	1,25	1,21	1,18	1,20	1,22	1,22
			Min-Max : 1,20 - 1,25		Min-Max : 1,18 - 1,25		Min-Max : 1,20 - 1,23				
Body Hook	BH	2,00 mm ± 0,20	2,00	2,03	1,99	1,98	2,02	2,03	2,00	2,03	1,98
			Min-Max : 1,99 - 2,05		Min-Max : 1,98 - 2,04		Min-Max : 1,98 - 2,05				
Cover Hook	CH	1,90 mm ± 0,20	1,90	1,95	1,93	1,93	1,90	1,91	1,93	1,93	1,94
			Min-Max : 1,90 - 1,95		Min-Max : 1,90 - 1,94		Min-Max : 1,91 - 1,95				
Seam Tightness (%)	ST (%)	Minimum 75 %	90								
			90								
Over Lap	OL	Minimum 1,02 mm	1,19	1,24	1,20	1,21	1,19	1,23	1,18	1,23	1,22
			1,21		1,21		1,21		1,21		

RECORD HASIL SETTING MESIN SEAMER VARIN-41

NO :	2	Tanggal :	04/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0.10 mm		Tekanan spring lifter (BPP) :	1300 N					
	Kerapatan roll samping 2nd roll :		0.15 mm								
	Standart			1		2		3			
Can Height	CaH	39,45 mm ± 0,30	39,53	39,56	39,50	39,54	39,48	39,47	39,55	39,57	39,52
Countersink	CS	4,80 mm ± 0,25	4,88	4,87	4,84	4,90	4,86	4,85	4,85	4,89	4,83
Seam Width	W	2,90 mm ± 0,15	2,97	2,95	2,93	2,94	2,98	2,98	3,00	2,94	2,97
			Min-Max : 2,91 - 2,98		Min-Max : 2,93 - 3,00		Min-Max : 2,91 - 3,00				
Seam Thickness	T	1,22 mm ± 0,10	1,23	1,24	1,21	1,22	1,24	1,21	1,20	1,23	1,22
			Min-Max : 1,21 - 1,24		Min-Max : 1,21 - 1,24		Min-Max : 1,20 - 1,25				
Body Hook	BH	2,00 mm ± 0,20	2,10	2,13	2,07	2,06	2,11	2,08	2,13	2,07	2,05
			Min-Max : 2,06 - 2,14		Min-Max : 2,05 - 2,13		Min-Max : 2,03 - 2,14				
Cover Hook	CH	1,90 mm ± 0,20	1,90	1,87	1,91	1,92	1,89	1,90	1,90	1,88	1,90
			Min-Max : 1,86 - 1,93		Min-Max : 1,88 - 1,94		Min-Max : 1,85 - 1,92				
Seam Tighness (%)	ST (%)	Minimum 75 %	90		90		90				
Over Lap	OL	Minimum 1,02 mm	1,26	1,28	1,28	1,27	1,25	1,23	1,26	1,24	1,21
			1,27		1,25		1,24				

RECORD HASIL SETTING MESIN SEAMER VARIN-41

NO :	3	Tanggal :	05/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0,10 mm		Tekanan spring lifter (BPP) :	1400 N					
	Kerapatan roll samping 2nd roll :		1,20 mm								
	Standart			1	2	3					
Can Height	CaH	39,45 mm ± 0,30	39,40	39,43	39,38	39,37	39,41	39,36	39,35	39,41	39,46
Countersink	CS	4,80 mm ± 0,25	4,83	4,85	4,81	4,78	4,84	4,82	4,86	4,84	4,83
			2,98	3,01	3,00	2,96	2,93	2,95	2,99	3,01	2,97
Seam Width	W	2,90 mm ± 0,15	Min-Max : 2,97 - 3,01		Min-Max : 2,91 - 2,98		Min-Max : 2,95 - 3,02				
Seam Thickness	T	1,22 mm ± 0,10	1,28	1,25	1,24	1,23	1,27	1,28	1,27	1,25	1,27
			Min-Max : 1,24 - 1,28		Min-Max : 1,21 - 1,28		Min-Max : 1,24 - 1,27				
Body Hook	BH	2,00 mm ± 0,20	2,13	2,08	2,15	2,11	2,14	2,10	2,16	2,13	2,09
			Min-Max : 2,06 - 2,15		Min-Max : 2,10 - 2,15		Min-Max : 2,08 - 2,16				
Cover Hook	CH	1,90 mm ± 0,20	1,84	1,86	1,85	1,85	1,82	1,82	1,80	1,83	1,78
Seam Tightness (%)	ST (%)	Minimum 75 %	Min-Max : 1,81 - 1,87		Min-Max : 1,80 - 1,88		Min-Max : 1,78 - 1,85				
			85		85		90				
Over Lap	OL	Minimum 1,02 mm	1,22	1,16	1,23	1,23	1,26	1,20	1,20	1,18	1,13
			1,20		1,23		1,17				

RECORD HASIL SETTING MESIN SEAMER VARIN-41

NO :	4	Tanggal :	06/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0,15 mm		Tekanan spring lifter (BPP) :	1300 N					
	Kerapatan roll samping 2nd roll :		1,10 mm								
	Standart	1	2	3							
Can Height	CaH	39,45 mm ± 0,30	39,55	39,51	39,46	39,57	39,59	39,62	39,49	39,56	39,55
Countersink	CS	4,80 mm ± 0,25	4,88	4,87	4,91	4,93	4,92	4,90	4,87	4,94	4,91
Sean Width	W	2,90 mm ± 0,15	2,98	2,97	2,96	2,98	2,97	3,00	2,99	2,97	2,98
			Mfn-Max : 2,95 - 2,99	Mfn-Max : 2,95 - 3,01	Mfn-Max : 2,94 - 3,00						
Sean Thickness	T	1,22 mm ± 0,10	1,21	1,2	1,21	1,23	1,2	1,2	1,22	1,24	1,21
			Mfn-Max : 1,20 - 1,22	Mfn-Max : 1,20 - 1,23	Mfn-Max : 1,19 - 1,25						
Body Hook	BH	2,00 mm ± 0,20	2,10	2,11	2,09	2,10	2,08	2,13	2,09	2,12	2,08
			Mfn-Max : 2,07 - 2,13	Mfn-Max : 2,05 - 2,13	Mfn-Max : 2,08 - 2,15						
Cover Hook	CH	1,90 mm ± 0,20	1,88	1,83	1,85	1,88	1,88	1,86	1,87	1,88	1,86
			Mfn-Max : 1,81 - 1,88	Mfn-Max : 1,85 - 1,90	Mfn-Max : 1,84 - 1,88						
Sean Tightness (%)	ST (%)	Mfimum 75 %	90	90	90	90	90	90	90	90	90
Over Lap	OL	Mfimum 1,02 mm	1,23	1,20	1,21	1,23	1,22	1,22	1,20	1,26	1,19
			1,21	1,21	1,21	1,22	1,22	1,22	1,22	1,22	1,22

RECORD HASIL SETTING MESIN SEAMER VARIN-41

NO :	5	Tanggal :	07/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0,15 mm		Tekanan spring lifter (BPP) :			1400 N			
	Kerapatan roll samping 2nd roll :		1,15 mm								
	Standart			1	2	3					
Can Height	CaH	39,45 mm ± 0,30	39,34	39,38	39,39	39,31	39,42	39,37	39,41	39,40	39,32
Countersink	CS	4,80 mm ± 0,25	4,92	4,90	4,89	4,93	4,90	4,90	4,93	4,95	4,89
Seam Width	W	2,90 mm ± 0,15	2,98	3,00	2,98	2,96	2,99	2,97	3,01	2,97	2,98
			Min-Max : 2,95 - 3,00		Min-Max : 2,96 - 3,01		Min-Max : 2,95 - 3,02				
Seam Thickness	T	1,22 mm ± 0,10	1,25	1,26	1,23	1,27	1,24	1,26	1,25	1,24	1,24
			Min-Max : 1,22 - 1,26		Min-Max : 1,23 - 1,28		Min-Max : 1,24 - 1,26				
Body Hook	BH	2,00 mm ± 0,20	2,08	2,11	2,10	2,08	2,07	2,10	2,14	2,10	2,06
			Min-Max : 2,07 - 2,12		Min-Max : 2,07-2,13		Min-Max : 2,05 - 2,15				
Cover Hook	CH	1,90 mm ± 0,20	1,85	1,84	1,90	1,88	1,85	1,86	1,84	1,83	1,89
			Min-Max : 1,84 - 1,90		Min-Max : 1,85 - 1,89		Min-Max : 1,80 - 1,90				
Seam Tightness (%)	ST (%)	Minimum 75 %									
Over Lap	OL	Minimum 1,02 mm	1,18	1,18	1,25	1,23	1,16	1,22	1,20	1,19	1,20
			1,20				1,20				1,20

RECORD HASIL SETTING MESIN SEAMER VARIN-41

NO :	6	Tanggal :	10/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0,15 mm		Tekanan spring lifter (BPP) :	1200 N					
	Kerapatan roll sampling 2nd roll :		1,20 mm								
	Standart			1	2	3					
Can Height	CaH	39,45 mm ± 0,30	39,63	39,67	39,60	39,69	39,63	39,57	39,68	39,62	39,68
Countersink	CS	4,80 mm ± 0,25	4,93	4,95	4,91	4,90	4,94	4,89	4,92	4,94	4,91
			2,97	2,98	2,96	2,97	2,98	2,98	2,96	2,95	3,00
Seam Width	W	2,90 mm ± 0,15	Mfr-Max : 2,95 - 2,99		Mfr-Max : 2,95 - 2,99		Mfr-Max : 2,95 - 3,00		Mfr-Max : 2,95 - 3,00		
Seam Thickness	T	1,22 mm ± 0,10	1,24	1,26	1,26	1,24	1,25	1,24	1,25	1,27	1,23
			Mfr-Max : 1,23 - 1,26		Mfr-Max : 1,22 - 1,25		Mfr-Max : 1,23 - 1,27				
Body Hook	BH	2,00 mm ± 0,20	2,01	2,03	2,05	1,98	2,03	2,00	2,06	1,99	2,01
			Mfr-Max : 2,00 - 2,05		Mfr-Max : 1,98 - 2,04		Mfr-Max : 1,99 - 2,08				
Cover Hook	CH	1,90 mm ± 0,20	1,87	1,85	1,88	1,89	1,85	1,86	1,85	1,84	1,90
			Mfr-Max : 1,83 - 1,88		Mfr-Max : 1,82 - 1,90		Mfr-Max : 1,82 - 1,91				
Seam Tightness (%)	ST (%)	Minimum 75 %	85		85		85		85		
Over Lap	OL	Minimum 1,02 mm	1,14	1,13	1,20	1,13	1,13	1,11	1,18	1,11	1,14
			1,16		1,12		1,14		1,14		

RECORD HASIL SETTING MESIN SEAMER VARIN-41

NO :	7	Tanggal :	11/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0,20 mm		Tekanan spring lifter (BPP) :	1400 N					
	Kerapatan roll samping 2nd roll :		1,10 mm								
	Standart			1	2	3					
Can Height	CaH	39,45 mm ± 0,30	39,31	39,38	39,32	39,39	39,36	39,33	39,42	39,37	39,35
Countersink	CS	4,80 mm ± 0,25	4,98	4,99	4,95	5,05	5,01	4,98	4,99	5,02	5,04
Seam Width	W	2,90 mm ± 0,15	3,00	3,01	3,03	3,01	2,99	3,02	2,97	2,99	3,03
			Mfn-Max : 2,98 - 3,04	Mfn-Max : 2,97 - 3,03							
Seam Thickness	T	1,22 mm ± 0,10	1,20	1,21	1,19	1,21	1,20	1,20	1,18	1,21	1,20
			Mfn-Max : 1,19 - 1,22	Mfn-Max : 1,20 - 1,23							
Body Hook	BH	2,00 mm ± 0,20	2,11	2,08	2,12	2,10	2,15	2,07	2,09	2,08	2,13
			Mfn-Max : 2,07 - 2,13	Mfn-Max : 2,06 - 2,15							
Cover Hook	CH	1,90 mm ± 0,20	1,81	1,78	1,80	1,75	1,78	1,83	1,84	1,80	1,77
			Mfn-Max : 1,75 - 1,83	Mfn-Max : 1,72 - 1,80							
Seam Tightness (%)	ST (%)	Minimum 75 %	90		85		90				
Over Lap	OL	Minimum 1,02 mm	1,15	1,08	1,12	1,07	1,17	1,11	1,19	1,12	1,10
			1,12		1,12		1,14				

RECORD HASIL SETTING MESIN SEAMER VARIN-41

NO :	8	Tanggal :	12/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0,20 mm		Tekanan spring lifter (BPP) :			1200 N			
	Kerapatan roll samping 2nd roll :		1,15 mm								
	Standart			1	2	3					
Can Height	CaH	39,45 mm ± 0,30	39,71	39,69	39,73	39,68	39,66	39,64	39,61	39,69	39,70
Countersink	CS	4,80 mm ± 0,25	5,00	5,01	4,97	4,98	4,96	4,99	5,03	5,00	4,97
Seam Width	W	2,90 mm ± 0,15	2,98	2,94	2,93	2,95	2,92	2,94	2,90	2,93	2,99
			Min-Max : 2,91 - 2,98		Min-Max : 2,91 - 2,96		Min-Max : 2,90 - 3,00				
Seam Thickness	T	1,22 mm ± 0,10	1,25	1,24	1,25	1,26	1,23	1,26	1,24	1,22	1,27
			Min-Max : 1,23 - 1,26		Min-Max : 1,23 - 1,28		Min-Max : 1,22 - 1,27				
Body Hook	BH	2,00 mm ± 0,20	2,01	2,00	1,98	1,97	1,98	2,00	1,97	2,01	2,01
			Min-Max : 1,98 - 2,02		Min-Max : 1,97 - 2,03		Min-Max : 1,96 - 2,02				
Cover Hook	CH	1,90 mm ± 0,20	1,80	1,78	1,81	1,85	1,79	1,80	1,74	1,80	1,82
			Min-Max : 1,76 - 1,83		Min-Max : 1,77 - 1,85		Min-Max : 1,74 - 1,84				
Seam Tighness (%)	ST (%)	Minimum 75 %	90		85		85				
Over Lap	OL	Minimum 1,02 mm	1,06	1,07	1,09	1,10	1,08	1,09	1,04	1,11	1,07
			1,07		1,09		1,07				

RECORD HASIL SETTING MESIN SEAMER VARIN-41

NO :	9	Tanggal :	13/05/2021	Spec Kaleng :	211 x 109	SCH :	33,75 mm				
Keterangan :	Kerapatan roll atas 1st roll :		0,20 mm		Tekanan spring lifter (BPP) :	1300 N					
	Kerapatan roll samping 2nd roll :		1,20 mm								
	Standart		1		2		3				
Can Height	CaH	39,45 mm ± 0,30	39,52	39,60	39,54	39,61	39,63	39,56	39,52	39,57	39,55
Countersink	CS	4,80 mm ± 0,25	5,02	5,01	5,00	4,98	4,99	5,02	5,00	4,97	4,98
Seam Width	W	2,90 mm ± 0,15	2,94	2,90	2,88	2,93	2,94	2,90	2,94	2,92	2,94
			Mfn-Max : 2,88 - 2,96	Mfn-Max : 2,90 - 2,95	Mfn-Max : 2,91 - 2,96						
Seam Thickness	T	1,22 mm ± 0,10	1,30	1,29	1,26	1,28	1,29	1,28	1,31	1,28	1,30
			Mfn-Max : 1,25 - 1,30	Mfn-Max : 1,27 - 1,30	Mfn-Max : 1,27 - 1,31						
Body Hook	BH	2,00 mm ± 0,20	2,08	2,06	2,09	2,09	2,12	2,13	2,11	2,08	2,10
			Mfn-Max : 2,05 - 2,10	Mfn-Max : 2,09 - 2,13	Mfn-Max : 2,08 - 2,12						
Cover Hook	CH	1,90 mm ± 0,20	1,78	1,81	1,75	1,76	1,76	1,72	1,84	1,78	1,79
			Mfn-Max : 1,75 - 1,84	Mfn-Max : 1,72 - 1,80	Mfn-Max : 1,76 - 1,86						
Seam Tighness (%)	ST (%)	Minimum 75 %	85		85		85		85		
Over Lap	OL	Minimum 1,02 mm	1,15	1,20	1,19	1,15	1,17	1,18	1,24	1,17	1,18
			1,18		1,17		1,20				

Lampiran 2. Menghitung rata-rata

$$\bar{y} \text{ Exp} = \frac{\sum_{i=1}^n y_i}{n}$$

Karena dilakukan replika sebanyak tiga kali maka perhitungan rata-rata dari data ke-1 sampai data ke-9 menggunakan persamaan berikut :

$$\bar{y} \text{ Exp} = \frac{\sum_{i=1}^3 y_i}{3}$$

Spesimen 1

$$\bar{y} \text{ Exp} = \frac{1.21+1.21+1.21}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.63}{3}$$

$$\bar{y} \text{ Exp} = 1.21$$

Spesimen 2

$$\bar{y} \text{ Exp} = \frac{1.27+1.25+1.24}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.76}{3}$$

$$\bar{y} \text{ Exp} = 1.25$$

Spesimen 3

$$\bar{y} \text{ Exp} = \frac{1.20+1.23+1.17}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.6}{3}$$

$$\bar{y} \text{ Exp} = 1.20$$

Spesimen 4

$$\bar{y} \text{ Exp} = \frac{1.21+1.22+1.22}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.65}{3}$$

$$\bar{y} \text{ Exp} = 1.22$$

Spesimen 5

$$\bar{y} \text{ Exp} = \frac{1.20+1.20+1.20}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.6}{3}$$

$$\bar{y} \text{ Exp} = 1.20$$

Spesimen 6

$$\bar{y} \text{ Exp} = \frac{1.16+1.12+1.14}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.42}{3}$$

$$\bar{y} \text{ Exp} = 1.14$$

Spesimen 7

$$\bar{y} \text{ Exp} = \frac{1.12+1.12+1.14}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.38}{3}$$

$$\bar{y} \text{ Exp} = 1.13$$

Spesimen 8

$$\bar{y} \text{ Exp} = \frac{1.07+1.09+1.07}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.23}{3}$$

$$\bar{y} \text{ Exp} = 1.08$$

Spesimen 9

$$\bar{y} \text{ Exp} = \frac{1.18+1.17+1.20}{3}$$

$$\bar{y} \text{ Exp} = \frac{3.55}{3}$$

$$\bar{y} \text{ Exp} = 1.18$$

Lampiran 3. Perhitungan nilai SNR

$$SNR = -10\log\left(\frac{1}{n} \sum_{i=1}^n \frac{1}{y_i^2}\right)$$

Replikasi sebanyak tiga kali dari data ke-1 sampai ke-9 :

$$SNR \text{ Exp} = -10\log\left(\frac{1}{3} \sum_{i=1}^3 \frac{1}{y_i^2}\right)$$

Spesimen 1

$$SNR \text{ Exp} = -10\log\left(\frac{1}{3} \left(\frac{1}{y_1^2} + \frac{1}{y_2^2} + \frac{1}{y_3^2}\right)\right)$$

$$SNR \text{ Exp} = -10\log\left(\frac{1}{3} \left(\frac{1}{1.21^2} + \frac{1}{1.21^2} + \frac{1}{1.21^2}\right)\right)$$

$$SNR \text{ Exp} = -10\log(0.683)$$

$$SNR \text{ Exp} = 1.656$$

Spesimen 2

$$SNR \text{ Exp} = -10\log\left(\frac{1}{3} \left(\frac{1}{y_1^2} + \frac{1}{y_2^2} + \frac{1}{y_3^2}\right)\right)$$

$$SNR \text{ Exp} = -10\log\left(\frac{1}{3} \left(\frac{1}{1.27^2} + \frac{1}{1.25^2} + \frac{1}{1.24^2}\right)\right)$$

$$SNR \text{ Exp} = -10\log(0.637)$$

$$SNR \text{ Exp} = 1.938$$

Spesimen 3

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{y_i^2} + \frac{1}{y_i^2} + \frac{1}{y_i^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{1.20^2} + \frac{1}{1.23^2} + \frac{1}{1.17^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log (0.695)$$

$$SNR \text{ Exp} = 1.584$$

Spesimen 4

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{y_i^2} + \frac{1}{y_i^2} + \frac{1}{y_i^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{1.21^2} + \frac{1}{1.22^2} + \frac{1}{1.22^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log (0.676)$$

$$SNR \text{ Exp} = 1.727$$

Spesimen 5

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{y_i^2} + \frac{1}{y_i^2} + \frac{1}{y_i^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{1.20^2} + \frac{1}{1.20^2} + \frac{1}{1.20^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log (0.694)$$

$$SNR \text{ Exp} = 1.584$$

Spesimen 6

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{y_i^2} + \frac{1}{y_i^2} + \frac{1}{y_i^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{1.16^2} + \frac{1}{1.12^2} + \frac{1}{1.14^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log (0.770)$$

$$SNR \text{ Exp} = 1.138$$

Spesimen 7

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{y_i^2} + \frac{1}{y_i^2} + \frac{1}{y_i^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{1.12^2} + \frac{1}{1.12^2} + \frac{1}{1.14^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log (0.788)$$

$$SNR \text{ Exp} = 1.061$$

Spesimen 8

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{y_i^2} + \frac{1}{y_i^2} + \frac{1}{y_i^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{1.07^2} + \frac{1}{1.09^2} + \frac{1}{1.07^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log (0.863)$$

$$SNR \text{ Exp} = 0.668$$

Spesimen 9

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{y_i^2} + \frac{1}{y_i^2} + \frac{1}{y_i^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log \left(\frac{1}{3} \left(\frac{1}{1.18^2} + \frac{1}{1.17^2} + \frac{1}{1.20^2} \right) \right)$$

$$SNR \text{ Exp} = -10 \log (0.714)$$

$$SNR \text{ Exp} = 1.438$$

Lampiran 4. Perhitungan rata-rata SNR

Faktor Kerapatan Atas (Ka) :

$$\bar{A}_{\text{SNR}} = \frac{\sum_{i=1}^3 y_i}{3}$$

Level 1

$$\bar{A}_{\text{Exp}} = \frac{1.656+1.960+1.578}{3}$$

$$\bar{A}_{\text{Exp}} = 1.72$$

Level 2

$$\bar{A}_{\text{Exp}} = \frac{1.703+1.584+1.135}{3}$$

$$\bar{A}_{\text{Exp}} = 1.48$$

Level 3

$$\bar{A}_{\text{Exp}} = \frac{1.035+0.641+1.461}{3}$$

$$\bar{A}_{\text{Exp}} = 1.05$$

Faktor Kerapatan Samping (Ks) :

$$\bar{B}_{\text{SNR}} = \frac{\sum_{i=1}^3 y_i}{3}$$

Level 1

$$\bar{B}_{\text{Exp}} = \frac{1.656+1.703+1.035}{3}$$

$$\bar{B}_{\text{Exp}} = 1.48$$

Level 2

$$\bar{B}_{\text{Exp}} = \frac{1.960+1.584+0.641}{3}$$

$$\bar{B}_{\text{Exp}} = 1.39$$

Level 3

$$\bar{B}_{\text{Exp}} = \frac{1.578+1.135+1.461}{3}$$

$$\bar{B}_{\text{Exp}} = 1.38$$

Faktor Tekanan Spring (T) :

$$\bar{C}_{\text{SNR}} = \frac{\sum_{i=1}^3 y_i}{3}$$

Level 1

$$\bar{C}_{\text{Exp}} = \frac{1.656+1.135+0.641}{3}$$

$$\bar{C}_{\text{Exp}} = 1.15$$

Level 2

$$\bar{C}_{\text{Exp}} = \frac{1.960+1.703+1.461}{3}$$

$$\bar{C}_{\text{Exp}} = 1.70$$

Level 3

$$\bar{C}_{\text{Exp}} = \frac{1.578+1.584+1.035}{3}$$

$$\bar{C}_{\text{Exp}} = 1.41$$

Lampiran 5. Lembar Bimbingan Skripsi

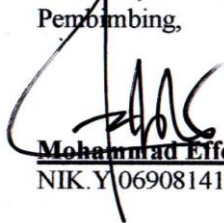
LEMBAR BIMBINGAN SKRIPSI

Nama : Kiki Mardianto
 NIM : 2017.69.02.0002
 Jurusan : Teknik Mesin
 Konsentrasi : Manufaktur
 Judul : PENGARUH SETTINGAN MESIN SEAMER
 (PENUTUP KALENG) VARIN-41 PADA
 HASIL KERAPATAN DOUBLE SEAM
 DIKEMASAN PENGALENGAN IKAN
 TUNA.

Hari	Tanggal	BAB	Materi Bimbingan	Tanda Tangan Pembimbing
minggu	14.03.2021	I	Latihan belah ketupat	eff
minggu	21.03.2021	I	Revisi dan klarifikasi tugas penelitian	eff
minggu	28.03.2021	II	Teori jerman & pustaka	eff
rumah	02.04.2021	II	Analisa & tugas di forum	eff
minggu	06.06.2021	III	Identifikasi penyaji Data	eff

Minggu	20.06.2021	III	Aliran metabolisme penelitian	SH
Minggu	27.06.2021	IV	Pengelolaan data eksperimen	SH
Minggu	11.07.2021	IV	Manajemen Variabel	SH
Minggu	18.07.2021	IV	Analisis	SH
Minggu	25.07.2021	V	Penelitian lengkap & Saran	SH

Pasuruan, 01 Agustus 2021
 Pembimbing,



Mohammad Eifendi, ST., M.MT.
 NIK.Y0690814135

Lampiran 6. Daftar Riwayat Hidup

DAFTAR RIWAYAT HIDUP

DATA PRIBADI



Nama : Kiki Mardianto
Tempat, tgl lahir : Ngawi, 19 November
1996.
Jenis Kelamin : Laki-laki
Kebangsaan : Indonesia
Agama : Islam
Status : Menikah
Perguruan Tinggi : Universitas Yudharta Pasuruan
Fakultas / Jurusan : Teknik / Teknik Mesin
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RIWAYAT PENDIDIKAN

SDN Tambakromo 2 Kab.Ngawi : 2002 – 2008
SMPN 2 Geneng Kab.Ngawi : 2008 – 2011
SMK PGRI 2 Geneng Kab.Ngawi : 2011 – 2014
Universitas Yudharta Pasuruan : 2017 – 2021