LAMPIRAN 1

PENGUKURAN ARUS

Tabel arus benda kerja *non masking*

No	Tegangan (*volt*)	Arus (*Ampere*)		*Gap* (mm)	Waktu (s)	*Tool Movement* (mm)	Keterangan
		Spesimen 1	Spesimen 2				
1	7	12,8	12,8	0,5	0	0,25	Berlubang
2		13,112	12,86	0,5	36	0,25	
3		14,8739	13,8625	0,5	72	0,25	
4		16,3672	15,96	0,5	108	0,25	
5		10,1122	12,6954	0,5	144	0,25	
6	10	18,5	17,8	0,5	0	0,25	Berlubang
7		17,8681	17,33	0,5	36	0,25	
8		19,1648	15,6587	0,5	72	0,25	
9		11,3933	14,0872	0,5	108	0,25	
10		16,8181	3,0895	0,5	144	0,25	
11	13	23,7	25,2	0,5	0	0,25	Berlubang
12		22,4389	24,5764	0,5	36	0,25	
13		21,88	21,91095	0,5	72	0,25	
14		17,0333	8,1592	0,5	108	0,25	
15		18,8194	5,879	0,5	144	0,25	

Tabel arus benda kerja *masking*

No	Tegangan (*volt*)	Arus (*Ampere*)		*Gap* (mm)	Waktu (s)	*Tool Movement* (mm)	Keterangan
		Spesimen 1	Spesimen 2				
1	7	13,9	13,5	0,5	0	0,25	Berlubang
2		13,064	12,7125	0,5	36	0,25	
3		14,18	13,825	0,5	72	0,25	
4		16,8875	16,9575	0,5	108	0,25	
5		7,62783	8,16591	0,5	144	0,25	
6	10	18,7	19,6	0,5	0	0,25	Berlubang
7		16,95	17,2111	0,5	36	0,25	
8		18,9059	19,34	0,5	72	0,25	
9		19,95	20,0065	0,5	108	0,25	
10		6,738	6,95294	0,5	144	0,25	
11	13	29,8	22,5	0,5	0	0,25	Berlubang
12		28,1076	21,7	0,5	36	0,25	
13		31,7714	22,45	0,5	72	0,25	
14		11,8421	6,649	0,5	108	0,25	
15		11,2548	6,063	0,5	144	0,25	

Tabel *error bars non masking*

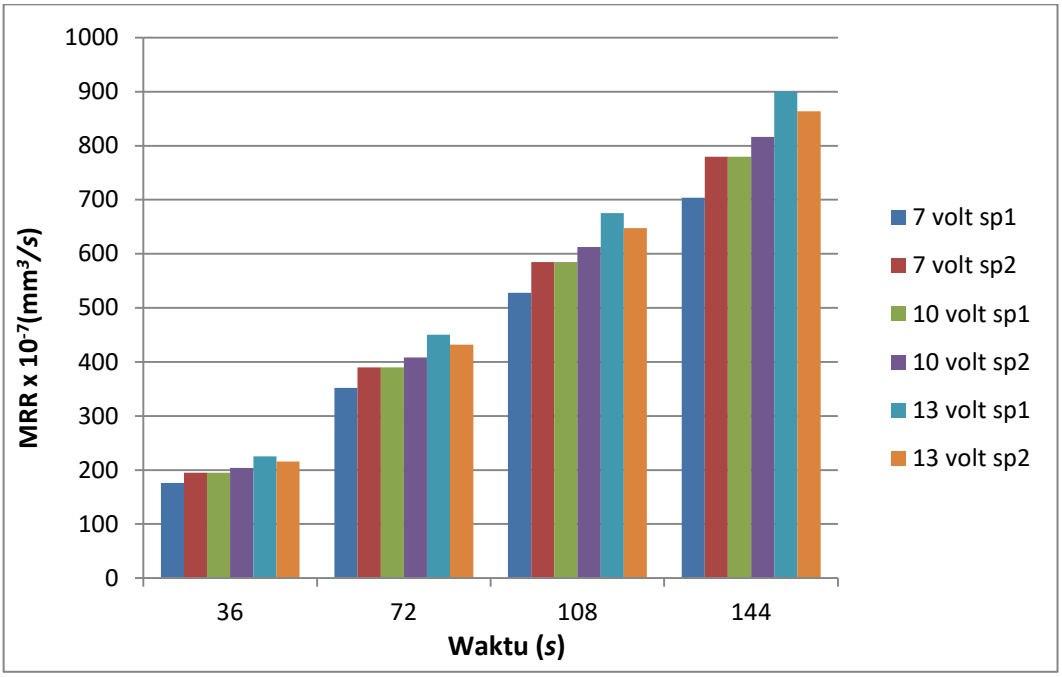
Tegangan	Sp1	Sp2	Rata-Rata	*error bars*
7	12,8	12,8	12,8	0
	13,112	12,86	12,986	0,089095454
	14,8739	13,8625	14,3682	0,357583899
	16,3672	15,96	16,1636	0,143966941
	10,1122	12,6954	11,4038	0,913299119
10	18,5	17,8	18,15	0,247487373
	17,8681	17,33	17,59905	0,190247079
	19,1648	15,6587	17,41175	1,239593543
	11,3933	14,0872	12,74025	0,952437479
	16,8181	3,0895	9,9538	4,853793078
13	23,7	25,2	24,45	0,530330086
	22,4389	24,5764	23,50765	0,755720372
	21,88	21,91095	21,895475	0,010942477
	17,0333	8,1592	12,59625	3,137468143
	18,8194	5,879	12,3492	4,575122296

Tabel *error bars masking*

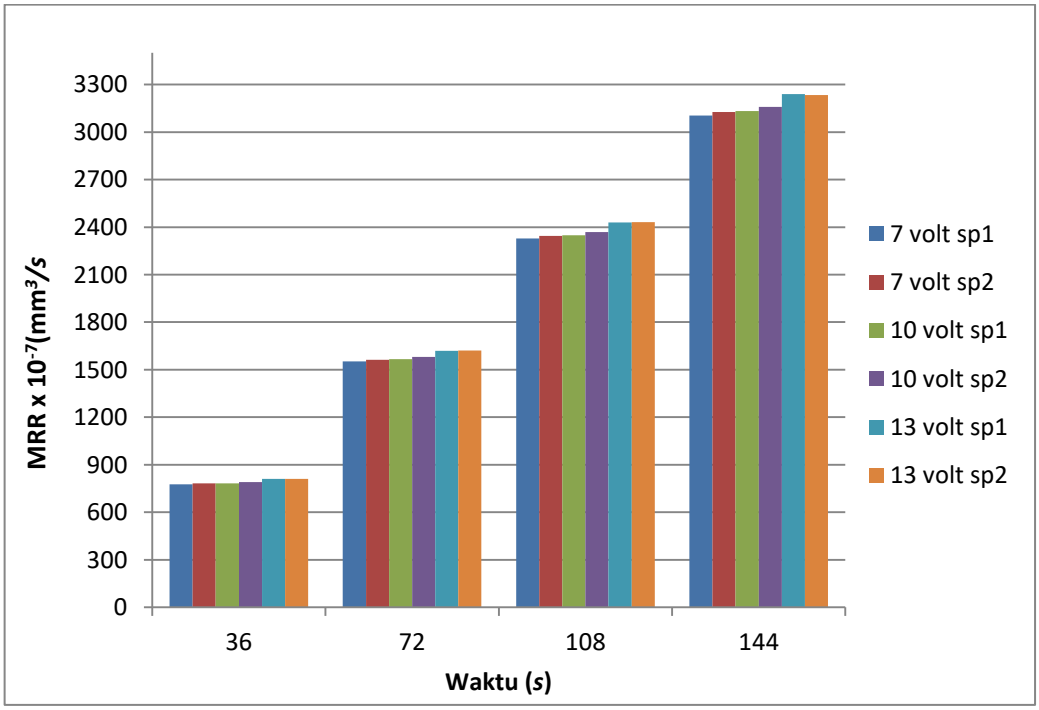
Tegangan	Sp1	Sp2	Rata-Rata	*error bars*
7	13,9	13,5	13,7	0,141421356
	13,064	12,7125	12,88825	0,124274017
	14,18	13,825	14,0025	0,125511454
	16,8875	16,9575	16,9225	0,024748737
	7,62783	8,16591	7,89687	0,190240008
10	18,7	19,6	19,15	0,318198052
	16,95	17,2111	17,08055	0,09231279
	18,9059	19,34	19,12295	0,153477527
	19,95	20,0065	19,9783	0,019975767
	6,738	6,95294	6,84547	0,075992766
13	29,8	22,5	26,15	2,580939751
	28,1076	21,7	24,9038	2,265428706
	31,7714	22,45	27,1107	3,295612575
	11,8421	6,649	9,24555	1,836038113
	11,2548	6,063	8,6589	1,835578493

LAMPIRAN 2

PERHITUNGAN MRR



Grafik MRR benda kerja *masking*



Grafik MRR benda kerja *non masking*

Tabel MRR *masking*

Spesimen	Tegangan (*volt*)	*mo* (gr)	*mt* (gr)	$\Delta m = mo-mt$ (g)	*t* (s)	MRR (g/s)	MRR $x10^{-7}$ (mm^3/s)
1	7	4,1917	4,0017	0,19	144	0,001319	4,88
2	7	4,2414	4,0309	0,2105	144	0,001461	5,4161
1	10	4,3217	4,1001	0,2216	144	0,00153	5,7017
2	10	4,1109	3,8815	0,2294	144	0,00159	5,9023
1	13	4,2076	3,9636	0,243	144	0,00168	6,2523
2	13	4,1085	3,8754	0,2331	144	0,00161	5,9975

Tabel MRR *non masking*

Spesimen	Tegangan (*volt*)	*mo* (gr)	*mt* (gr)	$\Delta m = mo-mt$ (g)	(*t*) (s)	MRR (g/s)	MRR $x10^{-7}$ (mm^3/s)
1	7	4,2598	3,4218	0,838	144	0,00581	21,56
2	7	4,2391	3,3953	0,8438	144	0,00585	21,71
1	10	4,2092	3,3638	0,8454	144	0,00587	21,75
2	10	4,1923	3,3395	0,8528	144	0,00592	21,95
1	13	4,3373	3,4629	0,8744	144	0,00607	22,49
2	13	4,3018	3,427	0,8748	144	0,006075	22,508

Tabel rata-rata MRR benda *masking*

No	Tegangan (*volt*)	Rata-Rata		$\Delta m = mo-mt$	Waktu (*t*)	MRR	MRR	MRR	MRR	Waktu
		mo(gr)	*mt*(gr)	(g)	(s)	(g/144s)	(g/s)	(mm3/144s) x10 -5	(mm3/s) x10 -7	s
1	7	4,2516	4,0513	0,2003	144	0,2003	0,00139097	7,4213E-05	5,15366E-07	190
2	10	4,1866	3,9607	0,22593	144	0,22593	0,00156898	8,371E-05	5,8132E-07	168,88
3	13	4,15805	3,92	0,23805	144	0,23805	0,00165313	8,8199E-05	6,12495E-07	160,288

Tabel rata-rata MRR benda *non masking*

No	Tegangan (*volt*)	Rata-Rata		$\Delta m = mo-mt$	Waktu (*t*)	MRR	MRR	MRR	MRR	Waktu
		mo(gr)	*mt*(gr)	(g)	(s)	(g/144s)	(g/s)	(mm3/144s)	(mm3/s) x10 -7	s
1	7	4,2157	3,3674	0,8483	144	0,8483	0,00589097	0,0003143	21,8265	44,97
2	10	4,29855	3,44235	0,8562	144	0,8562	0,00594583	0,00031723	22,0298	44,56
3	13	4,3018	3,427	0,8748	144	0,8748	0,006075	0,00032412	22,5083	43,61

Tabel rata-rata *error bars masking*

Tegangan	**sp1**	**sp 2**	**rata-rata**	***error bars***
7	0,19	0,2	0,1952	0,00367696
10	0,2105	0,22	0,21545	0,00350018
13	0,243	0,233	0,23805	0,00350018

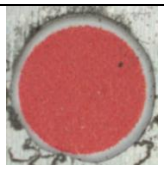
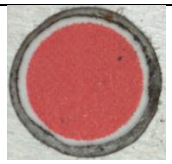
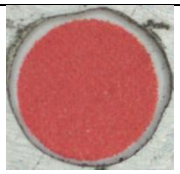
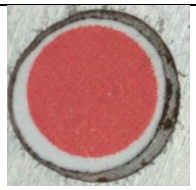
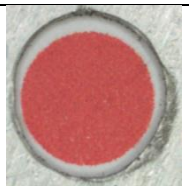
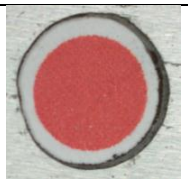
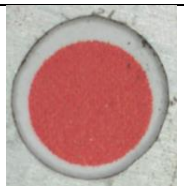
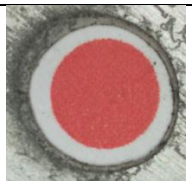
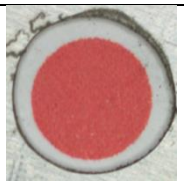
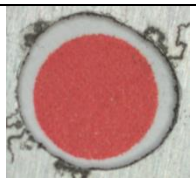
Tabel rata-rata *error bars non masking*

Tegangan	**sp1**	**sp 2**	**rata-rata**	***error bars***
7	0,9	0,844	0,8483	0,00318198
10	0,9	0,838	0,8562	0,01286934
13	0,8	0,875	0,8601	0,01039447

LAMPIRAN 3

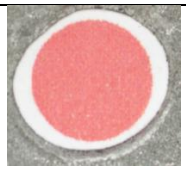
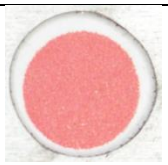
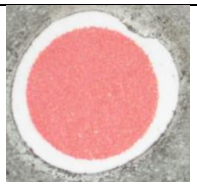
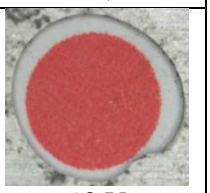
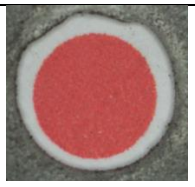
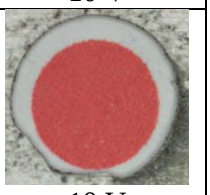
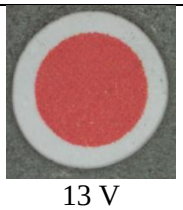
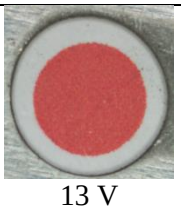
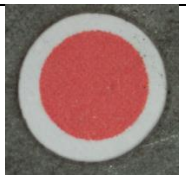
PERHITUNGAN OVERCUT

Masking

atas	bawah
 7 V	 7 V
 7 V	 7 V
 10 V	 10 V
 10 V	 10 V
 13 V	 13 V
 13 V	 13 V

Gambar *overcut masking*

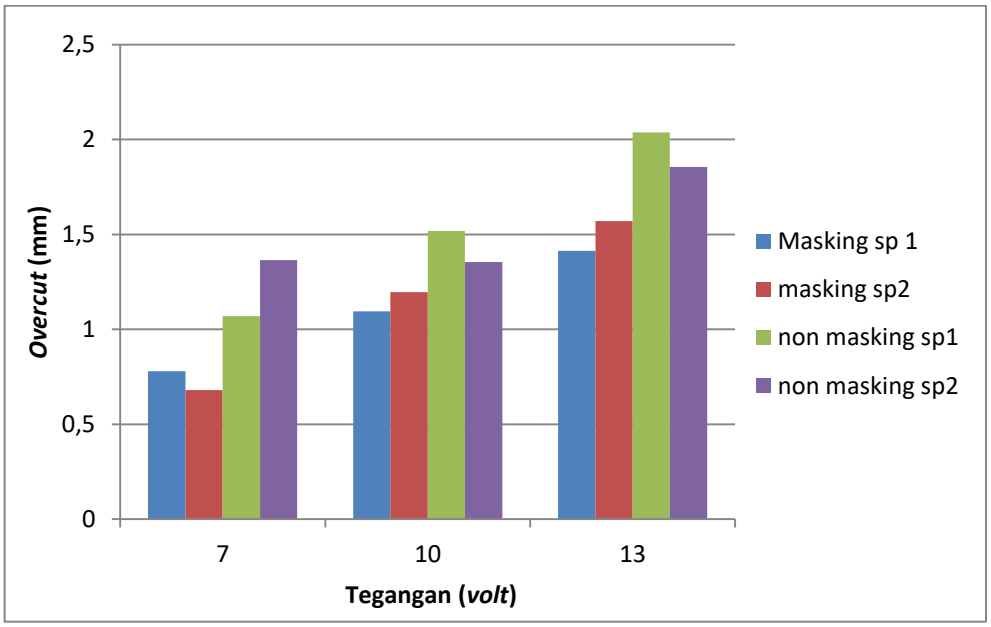
Non Masking

atas	bawah
 7 V	 7 V
 7 V	 7 V
 10 V	 10 V
 10 V	 10 V
 13 V	 13 V
 13 V	 13 V

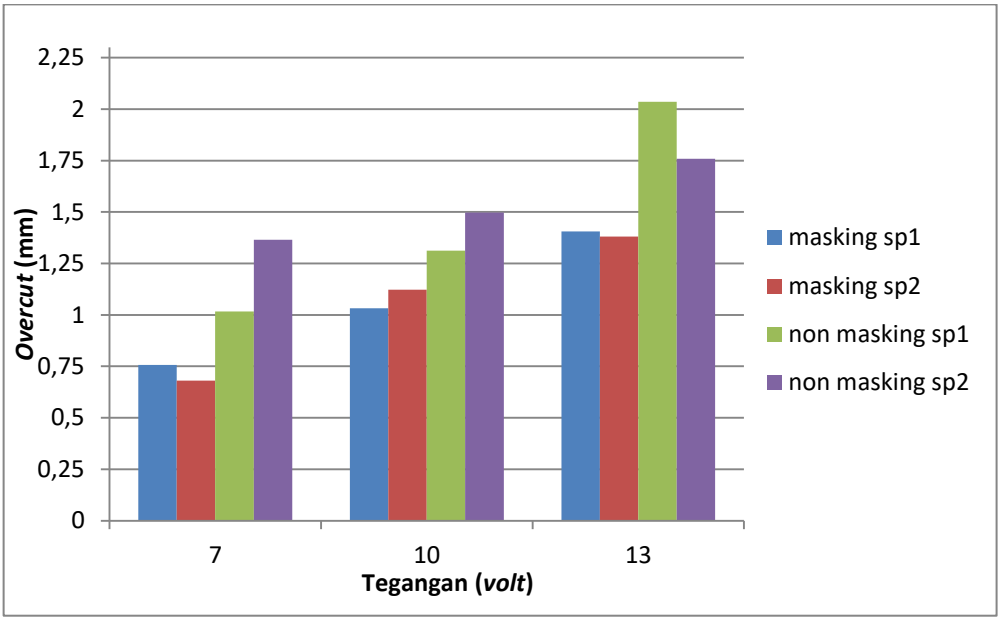
Gambar *overcut non masking*

Tabel hasil nilai *overcut*

Percobaan	Permukaan	Tegangan (*volt*)	Konsentrasi Elektrolit (%)	*Gap* (mm)	*Masking*			*Non Masking*			Presentase	
					d_2 (mm)	d_o (mm)	*Overcut* (mm)	d_2 (mm)	d_o (mm)	*Overcut* (mm)	*Masking*	*Non Masking*
1	Atas	7	15	0,5	5,78	5	0,78	6,069	5	1,069	16%	21%
	Bawah	7	15	0,5	5,757	5	0,757	6,017	5	1,017	15%	20%
2	Atas	7	15	0,5	5,68	5	0,68	6,365	5	1,365	14%	27%
	Bawah	7	15	0,5	5,671	5	0,671	6,337	5	1,337	13%	27%
3	Atas	10	15	0,5	6,095	5	1,095	6,519	5	1,355	22%	27%
	Bawah	10	15	0,5	6,032	5	1,032	6,497	5	1,312	21%	26%
4	Atas	10	15	0,5	6,196	5	1,196	6,355	5	1,519	24%	30%
	Bawah	10	15	0,5	6,123	5	1,123	6,312	5	1,497	22%	30%
5	Atas	13	15	0,5	6,414	5	1,414	7,038	5	2,038	28%	41%
	Bawah	13	15	0,5	6,405	5	1,405	7,036	5	2,036	28%	41%
6	Atas	13	15	0,5	6,571	5	1,571	6,855	5	1,855	31%	37%
	Bawah	13	15	0,5	6,38	5	1,38	6,758	5	1,758	28%	35%



Gambar grafik hasil *overcut* permukaan atas



Gambar grafik hasil *overcut* permukaan bawah

Tabel *error bars masking* permukaan atas

Tegangan	**sp1**	**sp2**	**rata-rata**	***error bars***
7	0,78	0,68	0,73	0,035355339
10	1,095	1,196	1,1455	0,035708892
13	1,414	1,571	1,4925	0,055507882

Tabel *error bars masking* permukaan bawah

Tegangan	**sp 1**	**sp 2**	**rata-rata**	***error bars***
7	0,757	0,68	0,7185	0,027223611
10	1,032	1,123	1,0775	0,032173359
13	1,405	1,38	1,3925	0,008838835

Tabel *error bars non masking* permukaan atas

Tegangan	**sp1**	**sp2**	**rata-rata**	***error bars***
7	1,069	1,365	1,217	0,104651804
10	1,355	1,519	1,437	0,057982756
13	2,038	1,855	1,9465	0,06470027

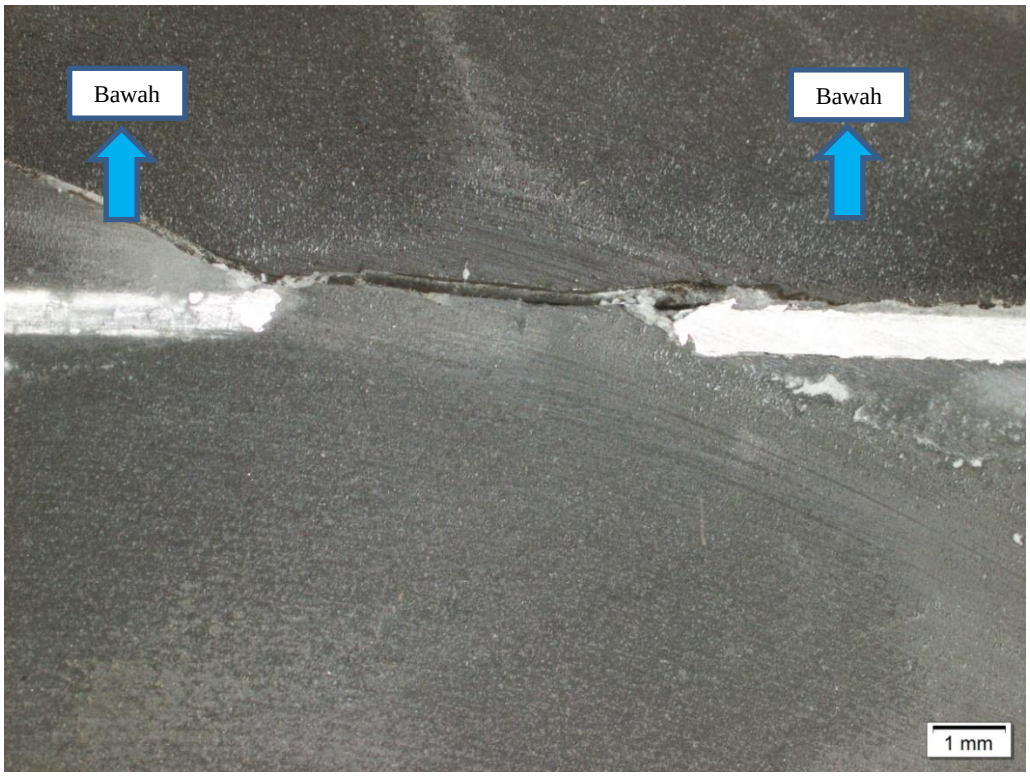
Tabel *error bars non masking* permukaan bawah

Tegangan	**sp1**	**sp2**	**rata-rata**	***error bars***
7	1,017	1,365	1,191	0,12303658
10	1,312	1,497	1,4045	0,065407377
13	2,036	1,758	1,897	0,098287843

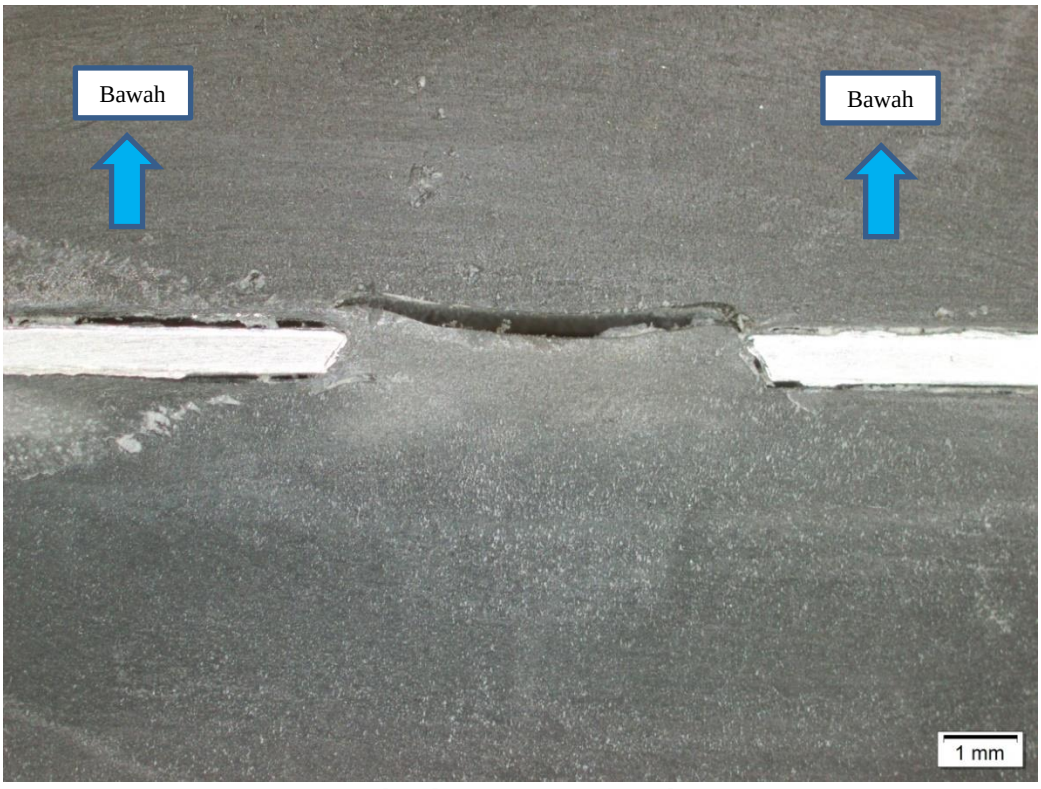
LAMPIRAN 4

FOTO MAKRO

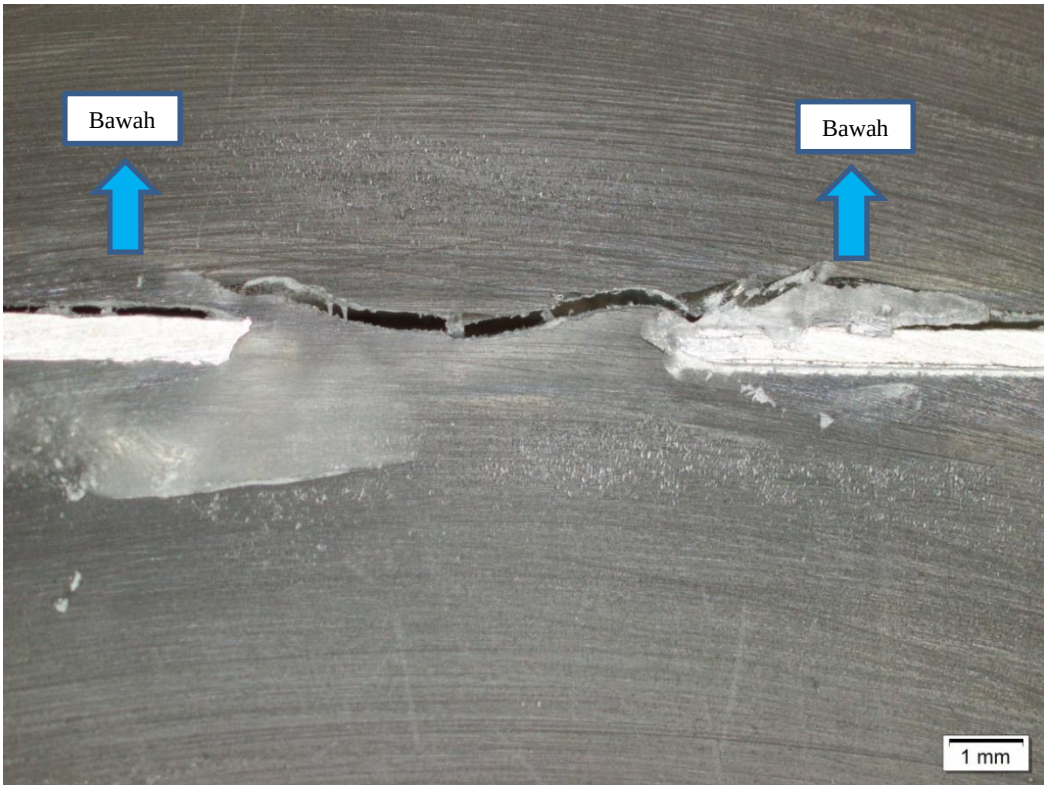
KETIRUSAN



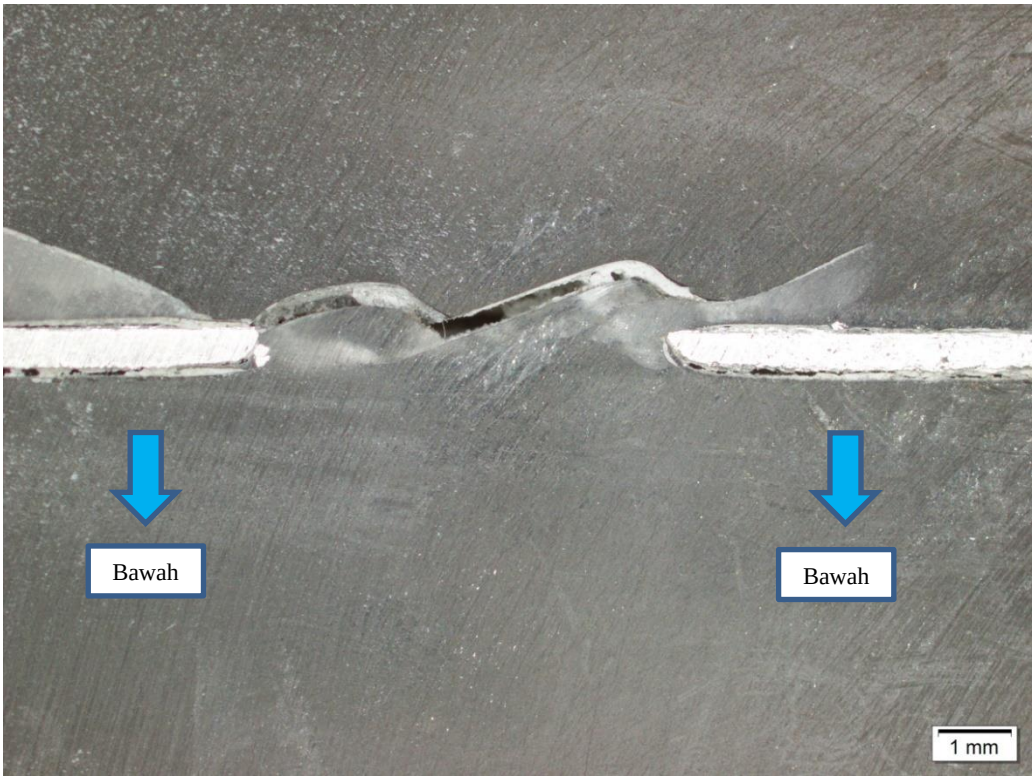
Gambar ketirusan 7v *masking*



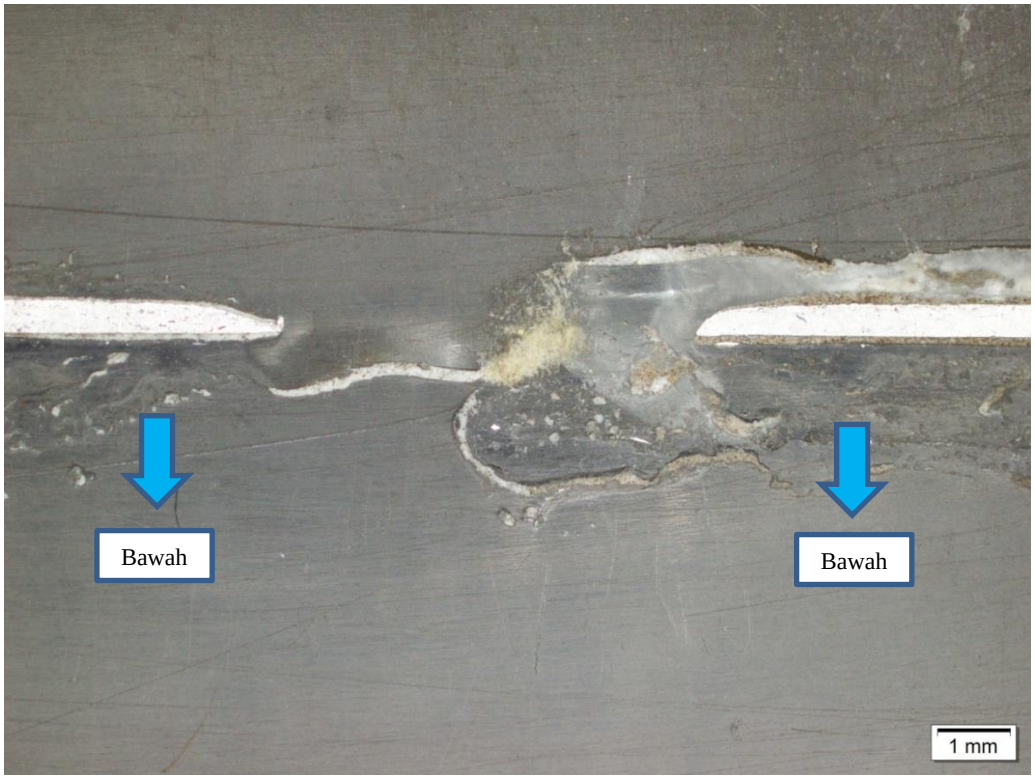
Gambar ketirusan 10v *masking*



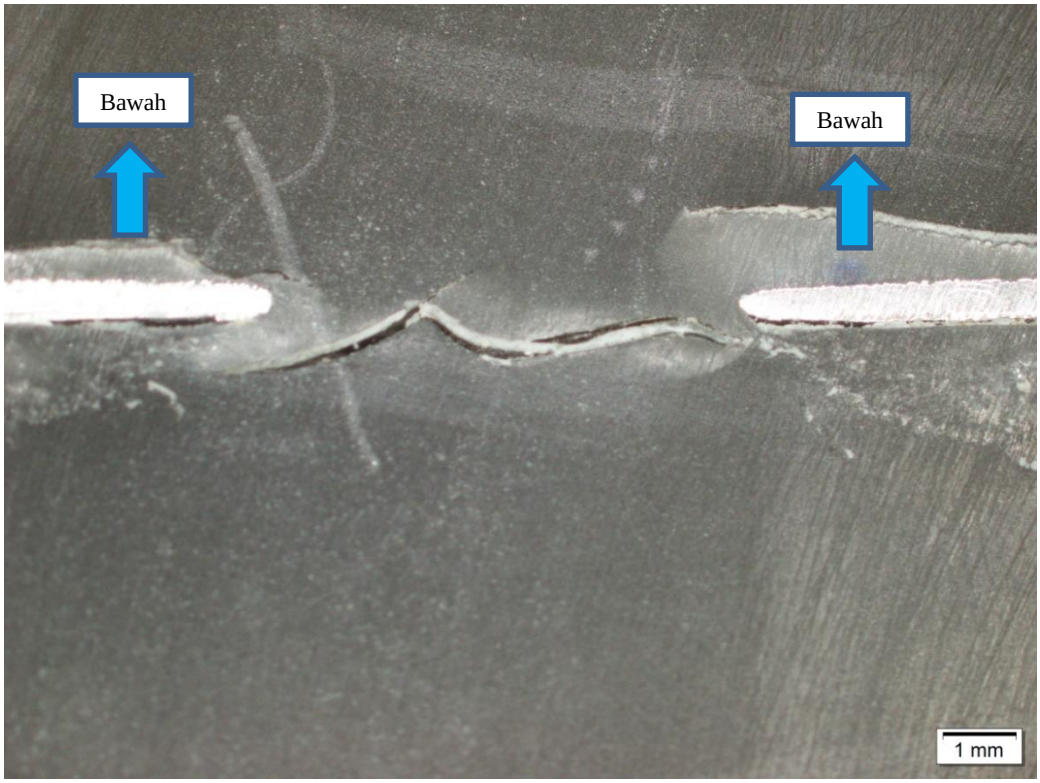
Gambar ketirusan 13v *masking*



Gambar ketirusan 7v *non masking*



Gambar ketirusan 10v *non masking*



Gambar ketirusan 13v *non masking*