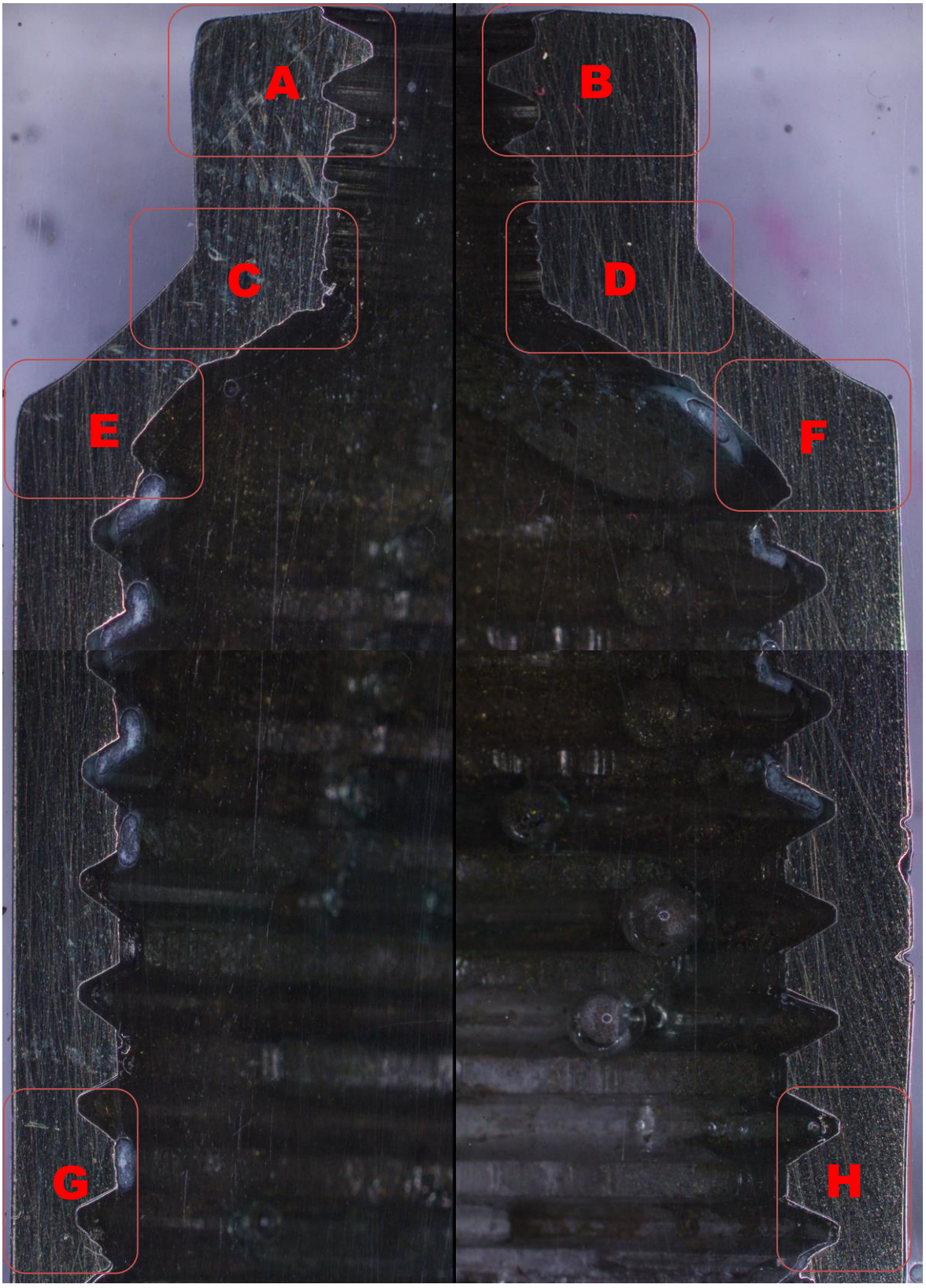
LAMPIRAN 1



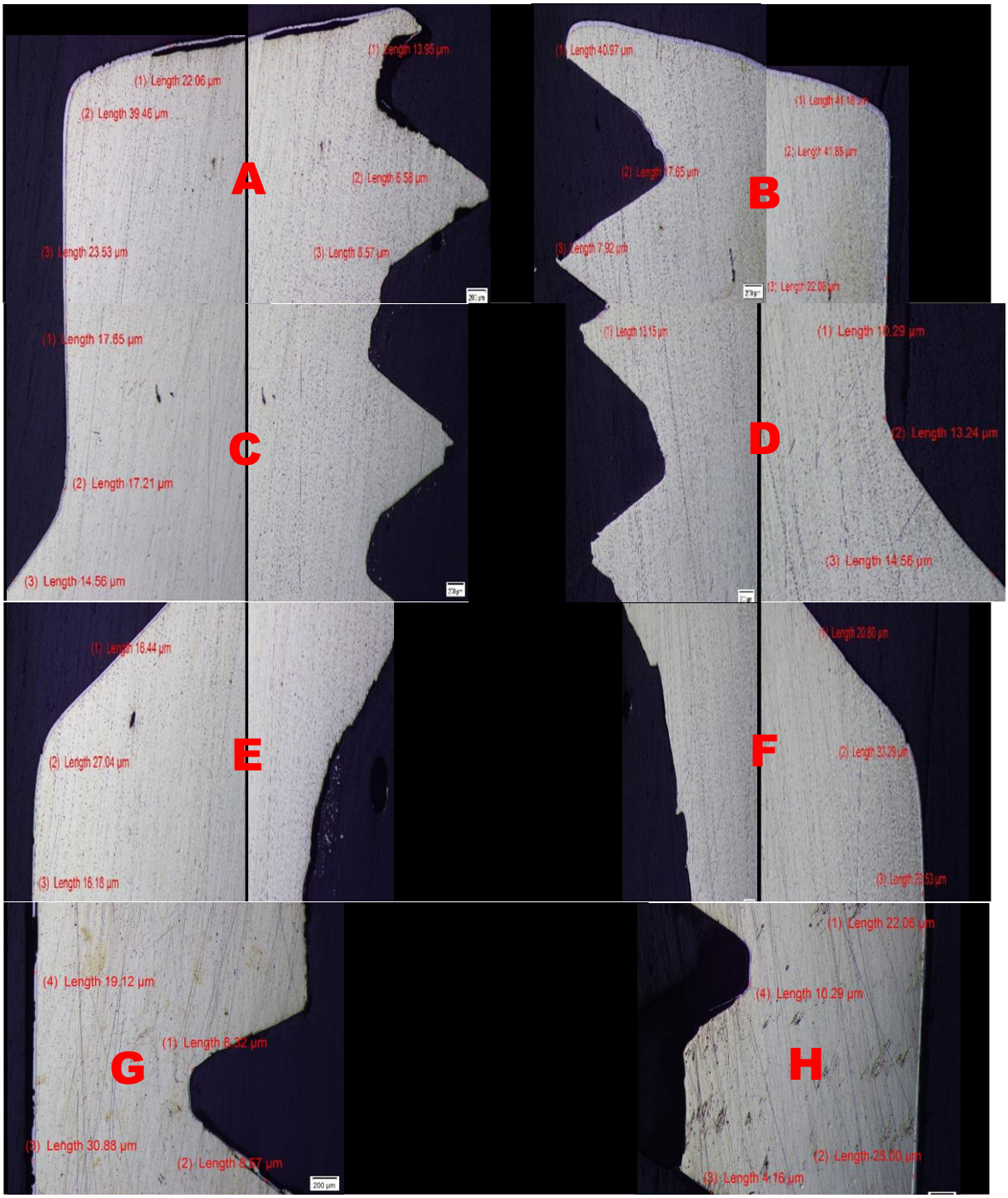
LAMPIRAN 2

Tabel 4.1 Data dari hasil pengukuran ketebalan di dapatsebagai berikut:

Bagian	No	Ketebalan lapisan elektroplating					
		30 menit		60 menit		90 menit	
		Luar	Dalam	Luar	Dalam	Luar	Dalam
A	1	22,06 µm	13,95 µm	38,24 µm	44,12 µm	47,06 µm	14,48 µm
	2	39,36 µm	6,58 µm	74,67 µm	31,16 µm	75,92 µm	8,57 µm
	3	23,36 µm	8,57 µm	50,00 µm	19,62 µm	54,41 µm	7,35 µm
B	4	41,18 µm	40,97 µm	38,24 µm	42,65 µm	88,24 µm	14,71 µm
	5	41,85 µm	17,65 µm	72,79 µm	23,02 µm	73,01 µm	32,35 µm
	6	22,06 µm	7,92 µm	42,65 µm	14,71 µm	76,70 µm	18,43 µm
C	7	17,65 µm	-	30,88 µm	7,35 µm	39,71 µm	4,41 µm
	8	17,21 µm	-	32,35 µm	5,88 µm	38,24 µm	3,29 µm
	9	14,65 µm	-	24,96 µm	-	29,12 µm	3,29 µm
D	10	10,29 µm	13,15 µm	25,00 µm	8,82 µm	57,35 µm	20,43 µm
	11	13,24 µm	-	27,94 µm	7,35 µm	52,94 µm	5,30 µm
	12	14,56 µm	-	22,88 µm	2,94 µm	47,83 µm	12,65 µm
E	13	16,44 µm	-	35,36 µm	4,41 µm	43,67 µm	-
	14	27,04 µm	-	54,73 µm	-	68,63 µm	-
	15	16,18 µm	-	48,53 µm	-	60,29 µm	-
F	16	20,80 µm	-	29,12 µm	4,41 µm	50,19 µm	-
	17	32,29 µm	-	49,43 µm	2,08 µm	97,06 µm	-
	18	23,53 µm	-	42,65 µm	-	80,88 µm	-
G	19	19,12 µm	8,20 µm	54,41 µm	10,60 µm	55,88 µm	7,35 µm
	20	30,88 µm	8,57 µm	72,06 µm	19,12 µm	85,29 µm	35,29 µm
	21	-	-	-	33,28 µm	-	27,04 µm
H	22	22,06 µm	10,29 µm	51,47 µm	14,71 µm	91,18 µm	17,15 µm
	23	25,00 µm	4,16 µm	82,38 µm	17,56 µm	120,59 µm	27,94 µm
	24	-	-	-	13,87 µm	-	48,69 µm
Rata-rata		**23,22 µm**	**12,73 µm**	**45,48 µm**	**16,38 µm**	**65,19 µm**	**17,15 µm**

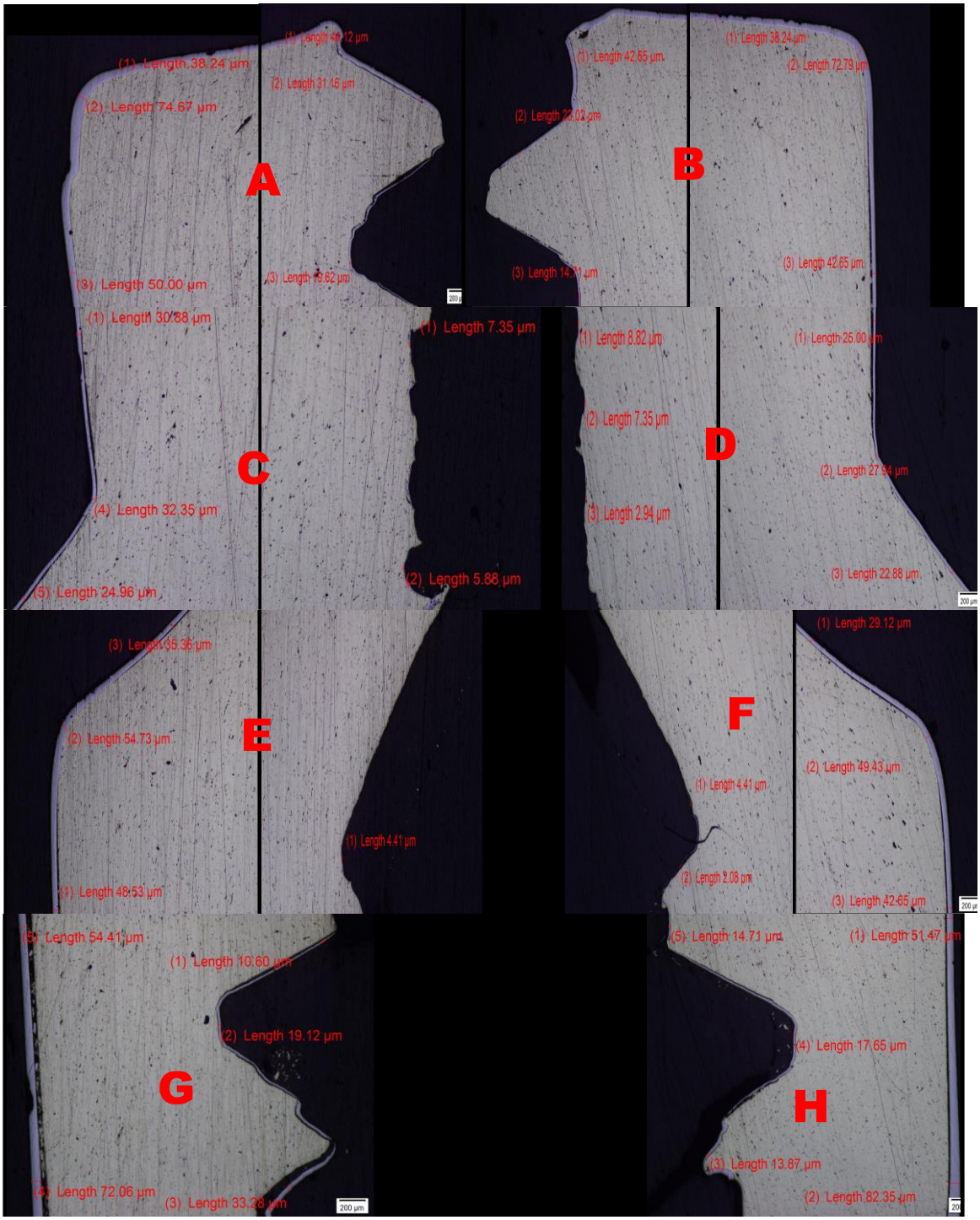
LAMPIRAN 3

30 MENIT



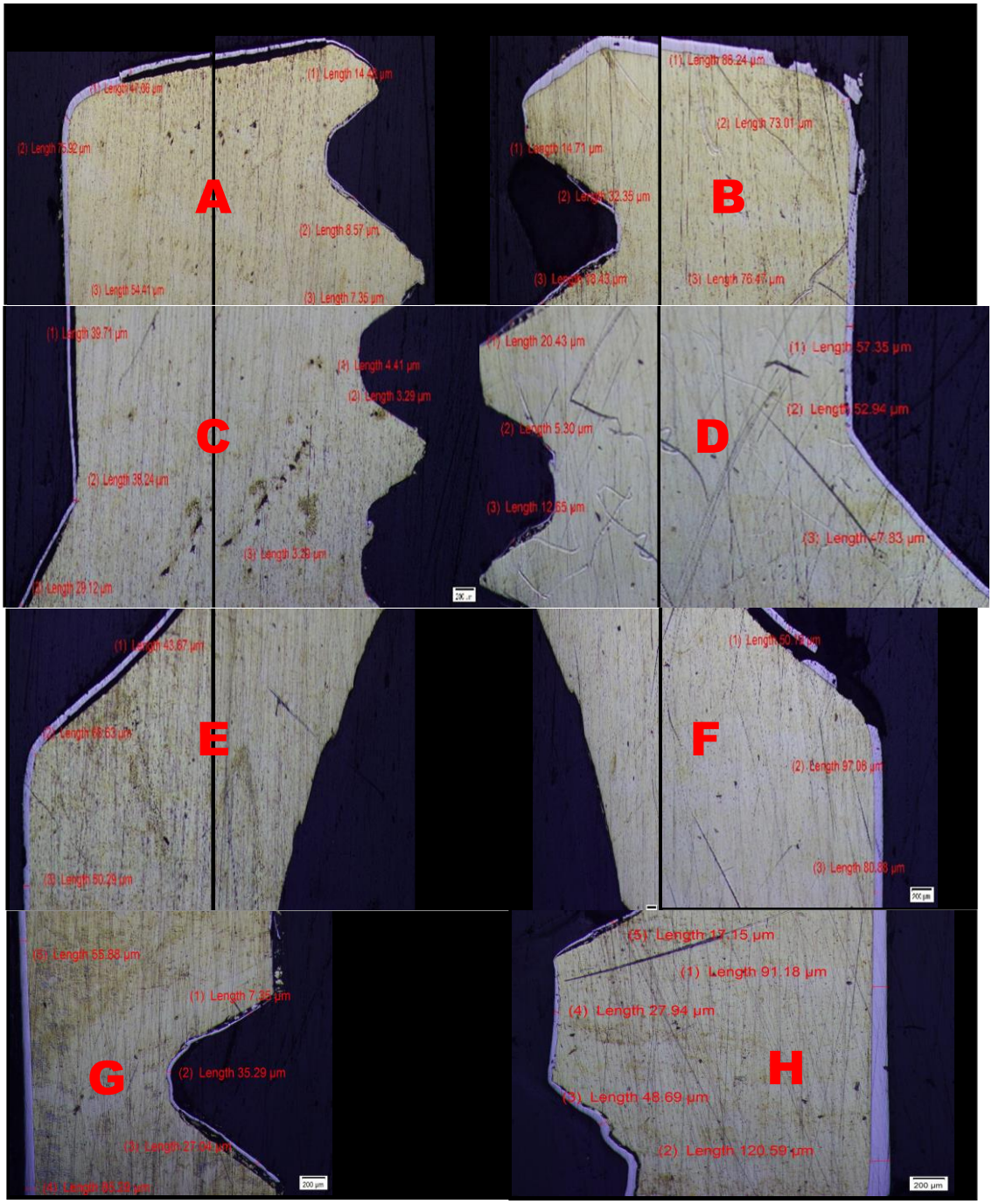
LAMPIRAN 4

60 menit



LAMPIRAN 5

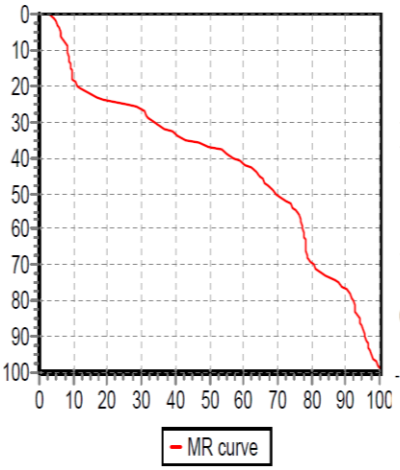
90 MENIT

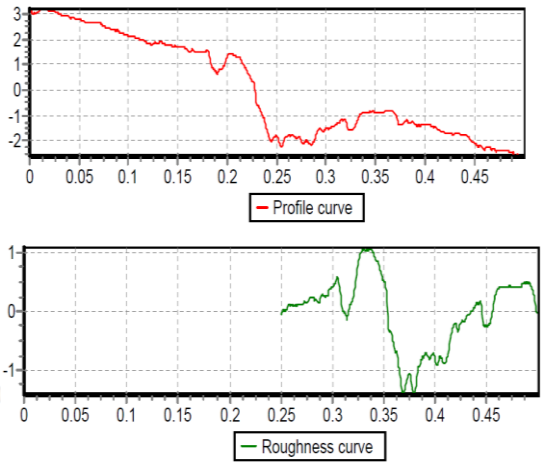


LAMPIRAN 6

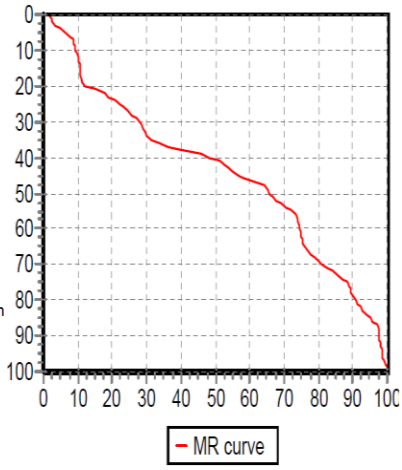
Kekasaran sebelum proses *electroplating*

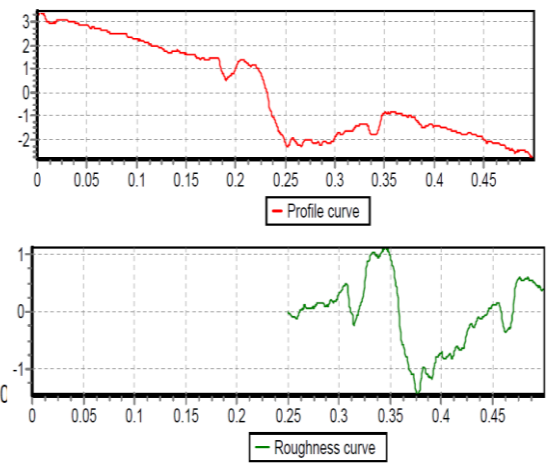
Ra = 0.477 ¦İm
R3z = 0.655 ¦İm
Rv = 1.437 ¦İm
Rp = 1.084 ¦İm
Rt = 2.521 ¦İm
Rz = 2.521 ¦İm
RS = 0.036 mm
Rsk = -0.549
RSm = 0.063 mm
Rq = 0.602 ¦İm
RzJIS = 0.857 ¦İm
R3y = 0.655 ¦İm
Rku = 2.677



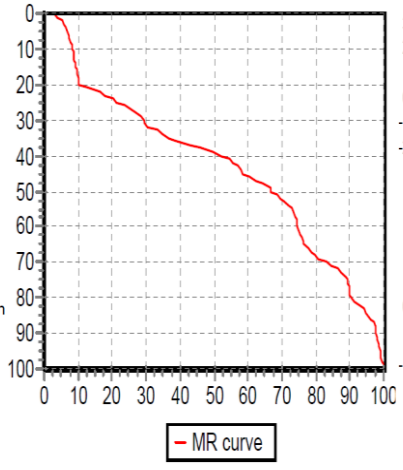


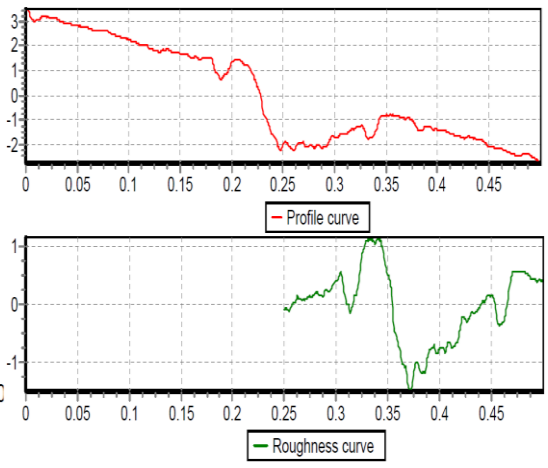
Ra = 0.493 ¦İm
R3z = 0.781 ¦İm
Rv = 1.487 ¦İm
Rp = 1.159 ¦İm
Rt = 2.647 ¦İm
Rz = 2.647 ¦İm
RS = 0.050 mm
Rsk = -0.381
RSm = 0.083 mm
Rq = 0.624 ¦İm
RzJIS = 0.933 ¦İm
R3y = 0.781 ¦İm
Rku = 2.492





Ra = 0.497 ¦İm
R3z = 0.756 ¦İm
Rv = 1.512 ¦İm
Rp = 1.159 ¦İm
Rt = 2.672 ¦İm
Rz = 2.672 ¦İm
RS = 0.049 mm
Rsk = -0.381
RSm = 0.063 mm
Rq = 0.624 ¦İm
RzJIS = 0.933 ¦İm
R3y = 0.756 ¦İm
Rku = 2.531



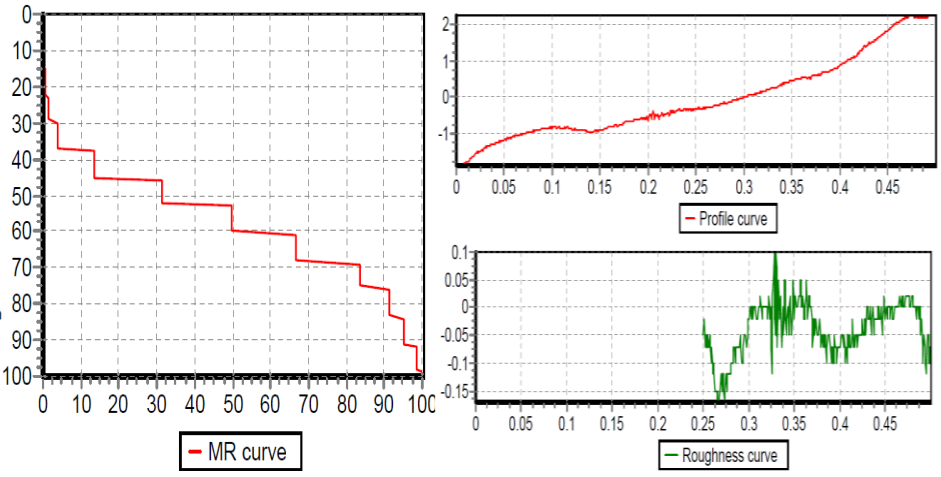


LAMPIRAN 7

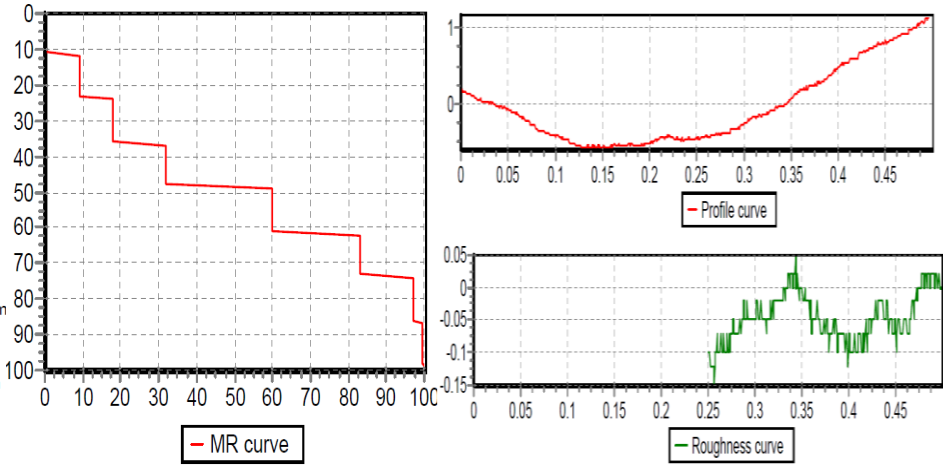
Kekasaran setelah proses *electroplating*

30 menit

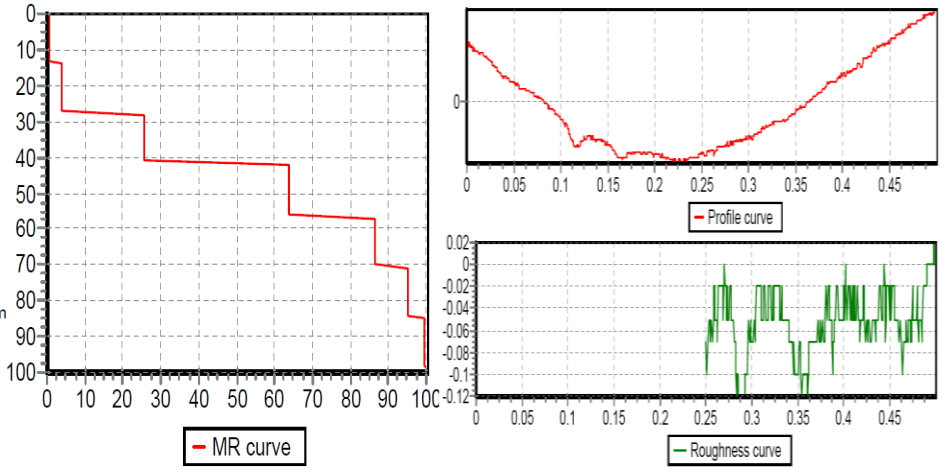
Ra = 0.051 µm
R3z = 0.202 µm
Rv = 0.176 µm
Rp = 0.151 µm
Rt = 0.328 µm
Rz = 0.328 µm
RS = 0.008 mm
Rsk = -1.478
RSm = 0.017 mm
Rq = 0.066 µm
RzJIS = 0.227 µm
R3y = 0.202 µm
Rku = 2.975



Ra = 0.055 µm
R3z = 0.050 µm
Rv = 0.151 µm
Rp = 0.050 µm
Rt = 0.202 µm
Rz = 0.202 µm
RS = 0.017 mm
Rsk = -1.308
RSm = 0.125 mm
Rq = 0.064 µm
RzJIS = 0.076 µm
R3y = 0.050 µm
Rku = 1.922



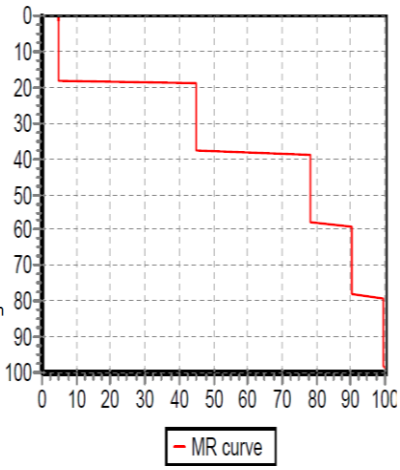
Ra = 0.057 µm
R3z = 0.000 µm
Rv = 0.151 µm
Rp = 0.025 µm
Rt = 0.176 µm
Rz = 0.176 µm
RS = 0.018 mm
Rsk = -1.304
RSm = 0.125 mm
Rq = 0.064 µm
RzJIS = 0.025 µm
R3y = 0.000 µm
Rku = 1.911

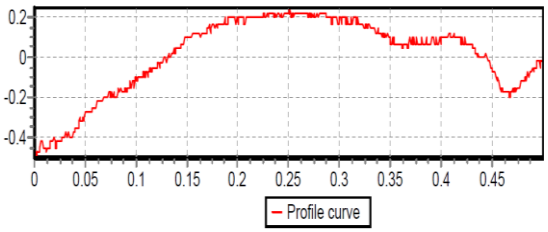


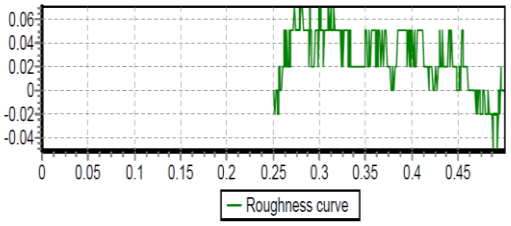
LAMPIRAN 8

60 menit

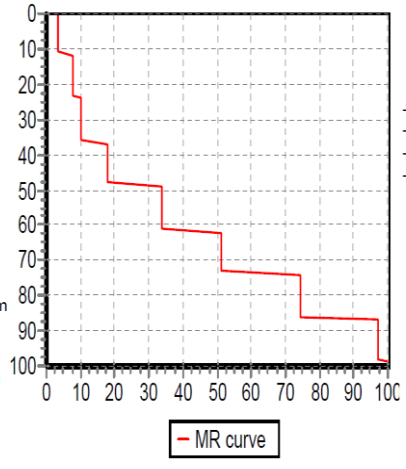
Ra = 0.035 ¦İm
R3z = 0.000 ¦İm
Rv = 0.050 ¦İm
Rp = 0.076 ¦İm
Rt = 0.126 ¦İm
Rz = 0.126 ¦İm
RS = 0.023 mm
Rsk = 1.206
RSm = 0.125 mm
Rq = 0.040 ¦İm
RzJIS = 0.025 ¦İm
R3y = 0.000 ¦İm
Rku = 1.762

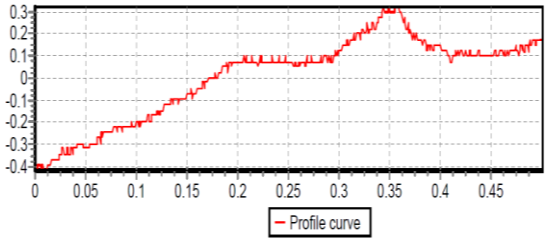


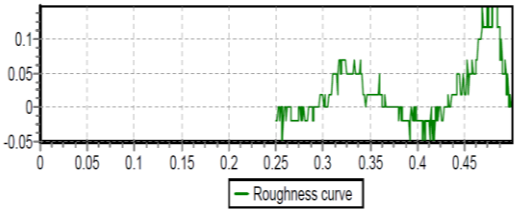




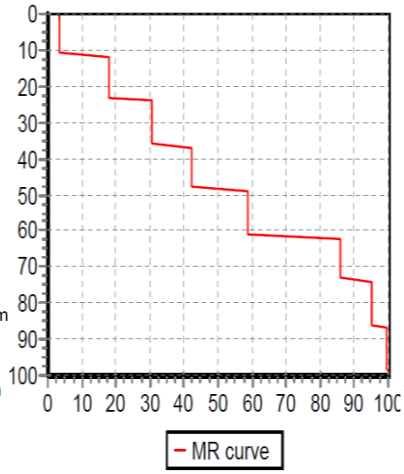
Ra = 0.038 ¦İm
R3z = 0.050 ¦İm
Rv = 0.050 ¦İm
Rp = 0.151 ¦İm
Rt = 0.202 ¦İm
Rz = 0.202 ¦İm
RS = 0.023 mm
Rsk = 1.785
RSm = 0.250 mm
Rq = 0.054 ¦İm
RzJIS = 0.076 ¦İm
R3y = 0.050 ¦İm
Rku = 4.184

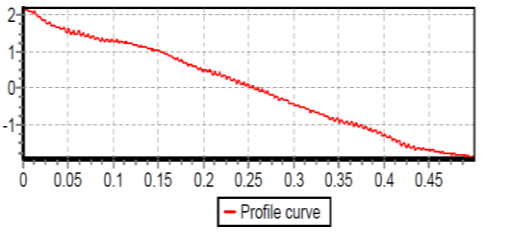


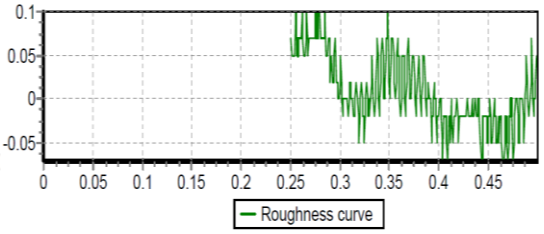




Ra = 0.039 ¦İm
R3z = 0.126 ¦İm
Rv = 0.101 ¦İm
Rp = 0.101 ¦İm
Rt = 0.202 ¦İm
Rz = 0.202 ¦İm
RS = 0.006 mm
Rsk = 0.702
RSm = 0.014 mm
Rq = 0.048 ¦İm
RzJIS = 0.126 ¦İm
R3y = 0.126 ¦İm
Rku = 2.258



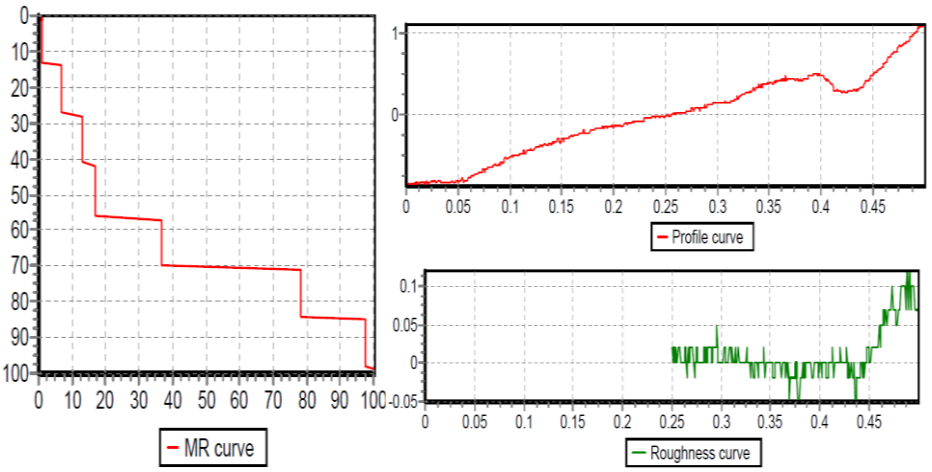




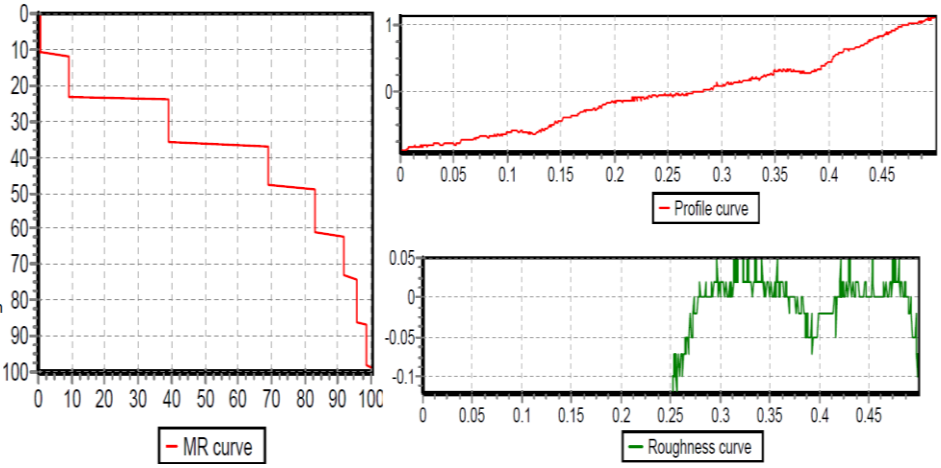
LAMPIRAN 9

90 menit

Ra = 0.025 ¦İm
R3z = 0.076 ¦İm
Rv = 0.050 ¦İm
Rp = 0.126 ¦İm
Rt = 0.176 ¦İm
Rz = 0.176 ¦İm
RS = 0.016 mm
Rsk = 1.821
RSm = 0.031 mm
Rq = 0.039 ¦İm
RzJIS = 0.076 ¦İm
R3y = 0.076 ¦İm
Rku = 4.771



Ra = 0.028 ¦İm
R3z = 0.126 ¦İm
Rv = 0.126 ¦İm
Rp = 0.076 ¦İm
Rt = 0.202 ¦İm
Rz = 0.202 ¦İm
RS = 0.015 mm
Rsk = -1.221
RSm = 0.063 mm
Rq = 0.039 ¦İm
RzJIS = 0.101 ¦İm
R3y = 0.126 ¦İm
Rku = 4.217



Ra = 0.031 ¦İm
R3z = 0.151 ¦İm
Rv = 0.101 ¦İm
Rp = 0.126 ¦İm
Rt = 0.227 ¦İm
Rz = 0.227 ¦İm
RS = 0.006 mm
Rsk = 0.803
RSm = 0.011 mm
Rq = 0.042 ¦İm
RzJIS = 0.151 ¦İm
R3y = 0.151 ¦İm
Rku = 3.090