



15	(PI)	PRESSURE INDICATOR
14	(TI)	TEMPERATURE INDICATOR
13	(PC)	PRESSURE CONTROLLER
12	(TC)	TEMPERATURE CONTROLLER
11	(FI)	FLOW INDICATOR
10	(SC)	STEAM CONDENSAT
9	(WWT)	WASTE WATER TREATMENT
8	(CTWR)	COOLING TOWER WATER RETURN
7	(CW)	COOLING WATER
6	(S)	STEAM
5	(AL)	ALIRAN LIQUID
4	(AG)	ALIRAN GAS
3	(AM)	ALIRAN MASSA
2	(T)	TEMPERATUR (°C)
1	(P)	TEKANAN (atm)
NO	SIMBOL	KETERANGAN

26	F-138	Gudang
25	P-137	Packing Produk
24	F-136	Penyimpanan Sementara
23	E-135	Cooler
22	F-134	Akumulator
21	E-133	Kondensor
20	E-132	Reboiler
19	D-130	Distilasi
18	E-131	Heater
17	L-123	Pompa
16	H-120	Flash Drum
15	E-122	Kondensor
14	G-121	Expander
13	R-110	Reaktor
12	E-111A	Heater
11	G-115B	Kompresor
10	G-119	Blower
9	H-118	Filter Udara
8	G-115A	Kompresor
7	E-117	Heater
6	F-116	Storage Etilena
5	G-115	Kompresor
4	E-114	Heater
3	V-113	Vaporizer
2	L-112	Pompa
1	F-111	Storage Asam Asetat
NO	KODE	KETERANGAN

KOMPONEN	BM (Kg/Kmol)	NERACA MASSA (Kg/Jam)									
		ALIRAN PROSES									
		1	2	3	4	5	6	7	8	9	10
CH <sub>3</sub> COOH	60	11635.9469	9308.7576	2327.1894	-	-	465.4379	-	465.4379	-	465.4379
H <sub>2</sub> O	18	237.4683	189.9746	47.4937	-	-	2842.9705	-	2842.9705	14.2149	2828.7557
O <sub>2</sub>	32	-	-	-	-	2482.3353	124.1168	124.1168	-	-	-
N <sub>2</sub>	28	-	-	-	-	9338.3092	9338.3092	9338.3092	-	-	-
C <sub>2</sub> H <sub>4</sub>	28	-	-	-	4344.0869	-	217.2043	217.2043	-	-	-
CH <sub>4</sub>	16	-	-	-	13.0977	-	13.0977	13.0977	-	-	-
C <sub>2</sub> H <sub>6</sub>	30	-	-	-	8.7318	-	8.7318	8.7318	-	-	-
C <sub>1</sub> H <sub>5</sub> O <sub>2</sub>	86	-	-	-	-	-	12675.4249	-	12675.4249	12612.0477	63.3771
<b>Total</b>		<b>11873.4152</b>	<b>9498.7322</b>	<b>2374.6830</b>	<b>4365.9164</b>	<b>11820.6445</b>	<b>25685.2932</b>	<b>9701.4599</b>	<b>15983.8333</b>	<b>12626.2626</b>	<b>3357.5707</b>

**PROGRAM STUDI TEKNIK KIMIA**  
**FAKULTAS TEKNOLOGI INDUSTRI**  
**INSTITUT TEKNOLOGI NASIONAL MALANG**  
**FLOW SHEET**  
**PRA RENCANA PABRIK**  
**VINIL ASETAT DARI ETILENA DAN ASAM ASETAT**  
**DENGAN PROSES OKSIDASI KAPASITAS 100.000 TON/TAHUN**

**DIRANCANG OLEH :** \_\_\_\_\_ **DOSEN PEMBIMBING :** \_\_\_\_\_

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