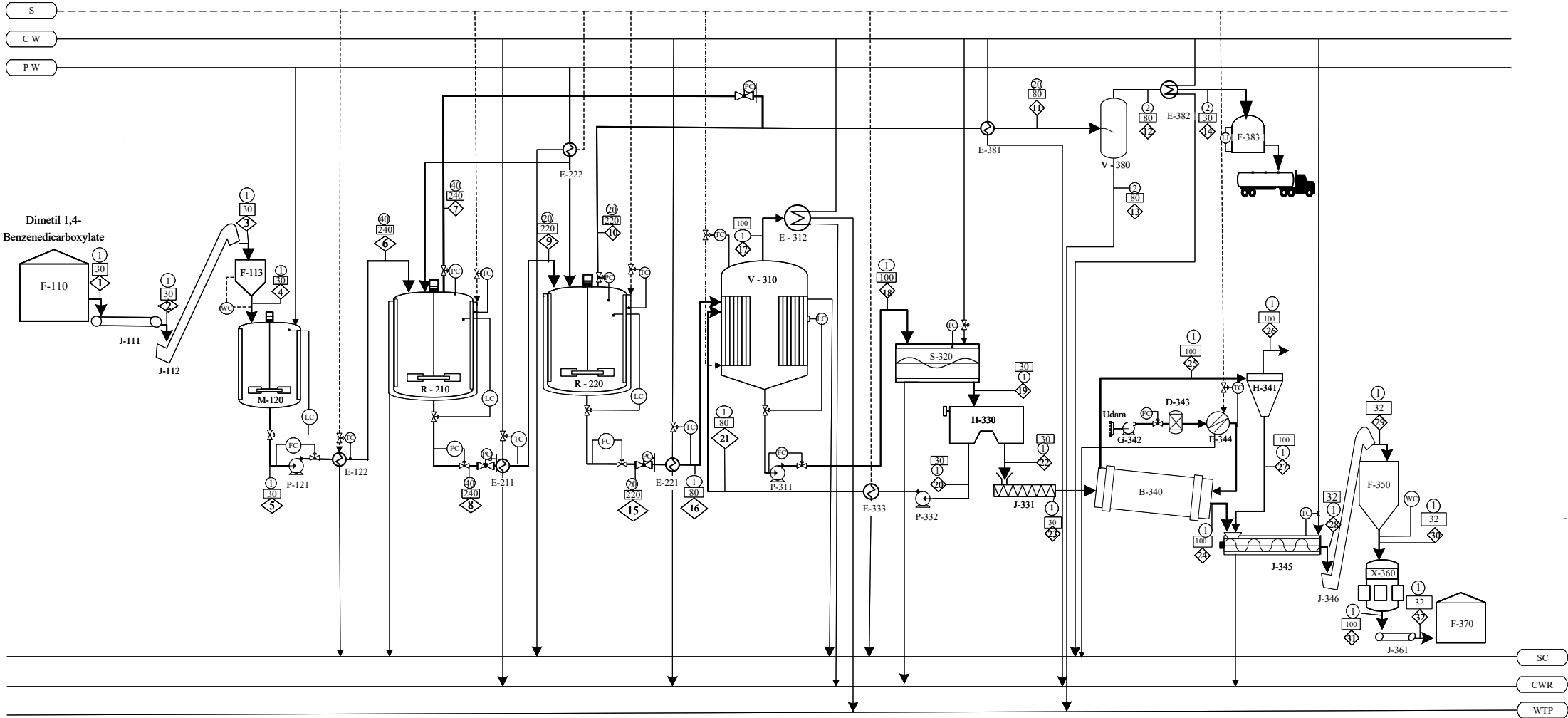


PABRIK TEREPHTHALIC ACID DARI DIMETIL 1,4-BENZENEDICARBOXYLATE MENGGUNAKAN
PROSES HIDROLISIS



KETERANGAN :

	Temperatur ; °C
	Tekanan ; atm
	Steam : 260°C ; 4,5 atm
	Steam Condensate
	Cooling Water
	Cooling Water Return
	Process Water
	Waste Treatment Plant

No.	Kode Alat	Nama Alat
1	F-110	Gudang Penyimpanan DMT
2	J-111	Belt Conveyor-1
3	F-113	Hopper
4	M-120	Tangki Pelarut
5	P-121	Pompa-1
6	E-122	Heater-1
7	R-210	Reaktor Hidrolisis-1
9	E-211	Cooler-1
9	R-220	Reaktor Hidrolisis-2
9	E-221	Cooler-2
11	E-222	Heater-2
17	V-310	Evaporator
18	P-311	Pompa-2
19	E-312	Kondensor-2
20	S-320	Kristalizer
21	H-330	Centrifuge
22	J-331	Screw Conveyor-2
23	P-332	Pompa-3
24	E-333	Heater-3
25	B-340	Rotary Dryer
26	H-341	Cyclone
27	G-342	Blower
28	D-343	Molecular Sieve Tray
29	E-344	Heater Udara
30	J-345	Cooling Conveyor
31	J-346	Bucket Elevator-2
32	F-350	Silo Terephthalic Acid
33	X-360	Packer Terephthalic Acid
34	J-361	Belt Conveyor-2
35	F-370	Gudang Terephthalic Acid
36	V-380	Flash Drum
37	E-381	Cooler-3
38	E-382	Kondensor Methanol-Air
39	F-383	Tangki Methanol-Air

Komponen	Aliran Massa (Kg/Jam)																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
C ₁₀ H ₁₀ O ₄	15031,3404	15031,3404	15031,3404	15031,3404	15031,3404	15031,3404																											
H ₂ O	15,0464	15,0464	34971,6519	34956,6055	34956,6055	34971,6519	3841,68187	13946,6045	33347,8812	11579,3183	15421,0002	6997,2566	8423,7436	6997,2566	29745,8720	29745,8720	29132,1889	15342,0786	15342,0786	14728,3954	14728,3954	613,6831	613,6831	12,9779	600,7053	600,7053		12,9779	12,9779	12,9779	12,9779	12,9779	
C ₈ H ₈ O ₄									33347,8812	13946,6045					278,9321	278,9321		279,4167	279,4167	268,2400	268,2400	11,1767	11,1767	10,9531	0,2235	0,0022	0,2213	11,1744	11,1744	11,1744	11,1744	11,1744	
C ₈ H ₆ O ₄															12604,6312	12604,6312		12626,5307	22,8119188	21,899442	21,899442												
C ₈ H ₆ O _{4(c)}																			12603,7187														
CH ₃ OH							2479,39635				2429,80842	4909,20478	3722,78958	1186,4152	3722,78958								12604,6312	12604,6312	12352,5386	252,0926	2,5209	249,5717	12602,1103	12602,1103	12602,1103	12602,1103	12602,1103
TOTAL	15046,3868	15046,3868	50002,9923	49987,9459	34956,6055	34971,6519	3841,68187	47294,4857	47294,4857	14009,1268	20330,2050	10720,0462	9610,1588	10720,0462	42629,4353	42629,4353	29132,1889	28248,0259	28248,0259	15018,5349	15018,5349	13229,4910	13229,4910	12376,4696	853,0214	603,2284	249,7930	12626,2626	12626,2626	12626,2626	12626,2626	12626,2626	

Digambar oleh : HENDRI ARI DWIYANTO 21031010022

Diperiksa Oleh :
Prof. Dr. Ir Sri Muljani, M.T.

FLWSHEET PRA RENCANA PABRIK
PABRIK TEREPHTHALIC ACID
DARI DYMETIL 1,4-BENZENEDICARBOXYLATE
MENGGUNAKAN PROSES HIDROLISIS



PROGRAM STUDI TEKNIK KIMIA
FAKULTAS TEKNIK & SAINS
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JAWA TIMUR
2025

No.	Kode Alat	Nama Alat
1	L-111	Pompa Bak Penampung Air Sungai
2	F-110	Bak Penampung Air Sungai
3	L-211	Pompa Tangki Koagulasi
4	M-210	Tangki Koagulasi
5	M-220	Tangki Flukulasi
6	F-310	Clarifier
7	F-311	Bak Penampung Flok Clarifier
8	F312	Bak penampung Air Bersih Clarifier
9	L-313	Pompa Sand Filter
10	H-320 A/B	Sand Filter
11	F-321	Bak penampung Air Bersih Sand Filter
12	L-322	Pompa Bak Penampung Air Sanitasi
13	F-323	Bak Penampung Air Sanitasi
14	L-324	Pompa Kation Exchanger
15	L-325	Pompa Bak Penampung Air Pendingin 1
16	F-326	Bak Penampung Air Pendingin
17	H-330	Kation Exchanger
18	L-331	Pompa Anion Exchanger
19	H-340	Anion Exchanger
20	L-341	Bak Penampung Air Demineralisasi
21	L-342	Pompa Air Umpan Boiler
22	S-350	Boiler
23	L-343	Pompa Air Proses
24	F-351	Bak Penampung Air Bekas Pendingin
25	L-352	Pompa Cooling Tower
26	P-360	Cooling Tower
27	P-353	Pompa Bak Penampung Air Pendingin 2

