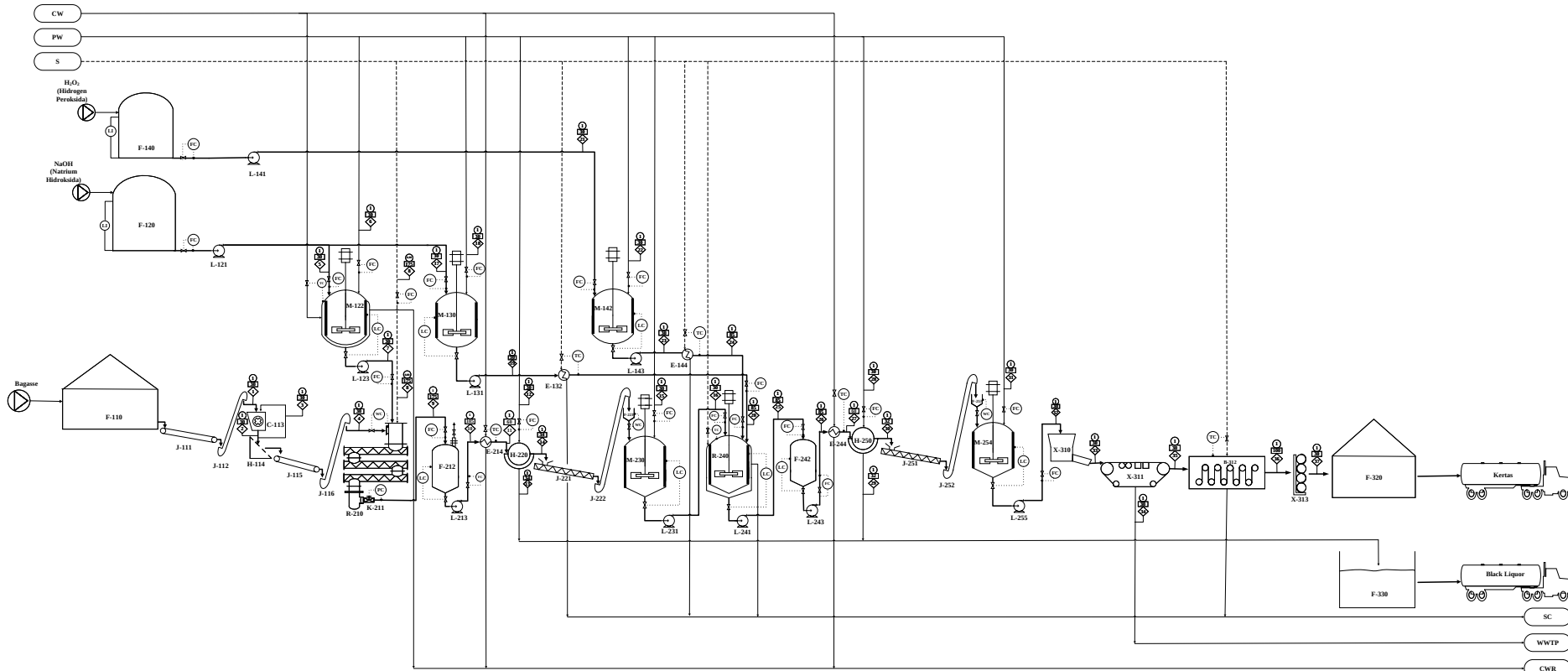


PRA RANCANGAN PABRIK KERTAS DARI PULP BERBAHAN DASAR BAGASSE TEBU DENGAN PROSES SODA



	Cooling Water		Temperatur Control
	Process Water		Flow Control
	Steam		Level Control
	Steam Condensate		Alarm
	Wastewater Treatment Plant		Temperatur : °C
	Cooling Water Return		Teleman : Atm

No.	Kode	Nama
1	F-110	Gedung Penyimpanan Bagasse
2	J-111	Belah Conveyor-1
3	J-112	Bucket Elevator-1
4	C-113	Shredder (Crushing)
5	H-114	Vibrating Screen
6	J-115	Belah Conveyor-2
7	J-116	Bucket Elevator-2
8	F-120	Tangki Penyimpanan NaOH
9	L-121	Pompa-1
10	M-122	Tangki Pengenceran NaOH-1
11	L-123	Pompa-2
12	M-130	Tangki Pengenceran NaOH-2
13	L-131	Pompa-3
14	E-132	Heater-1
15	F-140	Tangki Penyimpanan H_2O_2
16	L-141	Pompa-4
17	M-142	Tangki Pengenceran H_2O_2
18	L-143	Pompa-5
19	E-144	Heater-2
20	R-210	Digester
21	R-211	Eksapansi Valve
22	F-212	Blotwash
23	L-213	Pompa-7
24	E-214	Cooler-1
25	H-220	Rotary Vacuum Filter-1
26	J-221	Screw Conveyor-1
27	L-222	Bucket Elevator-3
28	F-223	Hopper-1
29	M-230	Tangki Mixer Pulp
30	L-231	Pompa-8
31	R-240	Reaktor Bleaching
32	L-241	Pompa-9
33	F-242	Tangki Buffer
34	L-243	Pompa-10
35	E-244	Cooler-2
36	H-250	Rotary Vacuum Filter-2
37	J-251	Screw Conveyor-2
38	L-252	Bucket Elevator-4
39	F-253	Hopper-2
40	M-254	Tangki Pengenceran Pulp
41	L-255	Pompa-11
42	X-310	Headbox
43	X-311	Wire Section
44	B-312	Roller Dryer
45	X-313	Calendering Section
46	F-320	Gedung Penyimpanan Kertas
47	F-330	Tangki Black Liquor

FLWSHEET PRA RANCANGAN PABRIK KERTAS DARI PULP BERBAHAN DASAR BAGASSE TEBU DENGAN PROSES SODA

Dusun Oleh:
Adelita Sababur (210101010196)

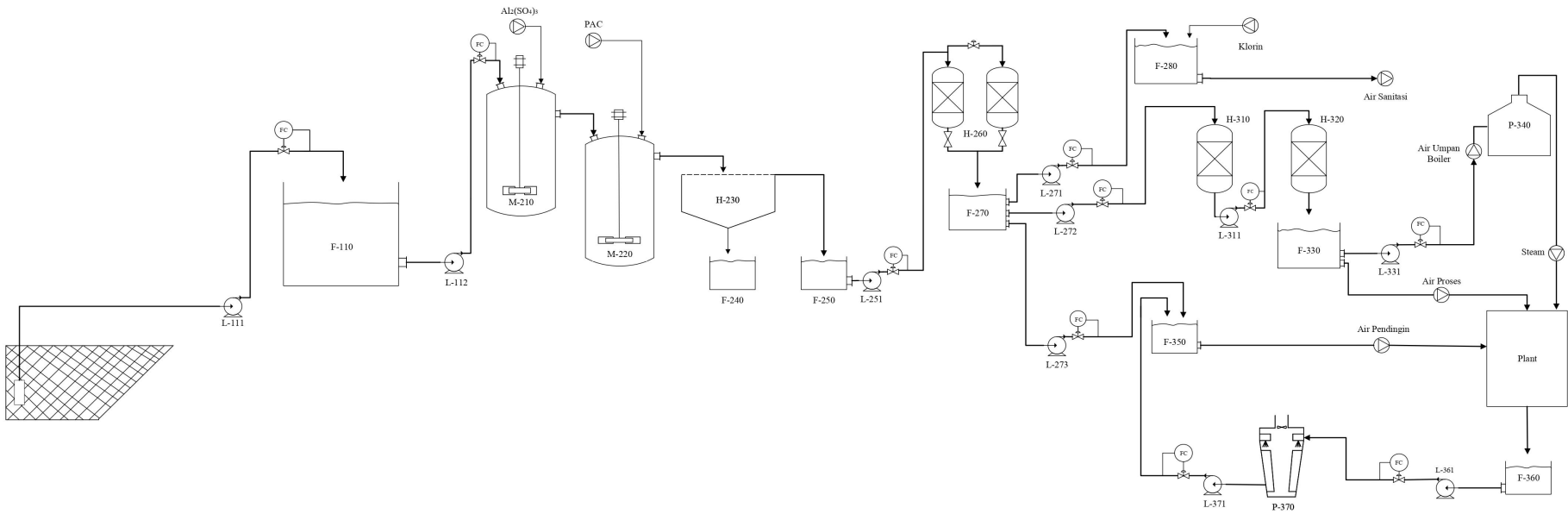
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2026

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	33	34	35	36	37	
$(C_6H_{10}O_5)_{bag}$	6.298,7996	128,5469	128,5469	6.298,7996					6.427,3465	6.427,3465	6.427,3465		443,4869	5.983,8596		5.983,8596										5.983,8596	5.983,8596	5.983,8596		119,6772	5.864,1824		5.864,1824	5.864,1824	5.864,1824	5.864,1824		
$(C_6H_8O_6)_{bag}$	3.224,1270	65,7985	65,7985	3.224,1270					3.289,9255	3.289,9255	3.289,9255		710,6239	2.579,3016		2.579,3016										2.579,3016	2.579,3016	2.579,3016		51,5860	2.527,7155		2.527,7155	2.527,7155	2.527,7155	2.527,7155		
$(C_6H_8O_6)_{bag}$	817,5282	16,6842	16,6842	817,5282					83,4212	83,4212	83,4212		1,6684	81,7528		81,7528										4,9052	4,9052	4,9052		0,0981	4,8071		4,8071	4,8071	4,8071	4,8071		
Alas	517,3421	10,5580	10,5580	517,3421					527,9001	527,9001	527,9001		527,9001																									
H ₂ O	1.916,0818	39,1037	39,1037	1.916,0818	8.472,4703	61.914,2077	70,386,6782	32,401,9344	104,818,8775	5,311,3305	5,311,3305	60,340,9450	27,477,3763	72,6578	240,355,9082	240,428,5661	141,6695	8,445,1477	8,586,8082	8,586,8082	1,871,3721	119,911,3862	34,068,2706	34,068,2706	283,091,3297	283,091,3297	283,091,3297	21,439,3777	304,523,1763	7,5311	231,716,7945	231,724,3256	231,724,3256	231,724,3256	231,724,3256	231,724,3256		
H ₂ O sap							7.820,7420		7.820,7420						7.653,8995	7.653,8995	7.653,8995																					
NaOH																																						
$(C_{12}H_{10}O_5)_{bag}$																																						
$(C_{12}H_{10}O_5)_{bag}$																																						
H ₂ O ₂																																						
Total	12,773,8786	260,6914	260,6914	12,773,8786	16,293,2126	61,914,2077	78,207,4203	32,401,9344	123,643,9247	123,643,9247	123,643,9247	60,340,9450	37,657,3098	8,717,5718	240,355,9082	240,873,4880	272,4241	8,445,1477	8,717,5718	8,717,5718	2,673,3887	919,911,3862	34,876,2872	34,876,2872	292,661,3391	292,661,3391	292,661,3391	21,439,3777	305,696,4807	8,484,2361	231,716,7945	240,121,0306	240,121,0306	240,121,0306	240,121,0306	240,121,0306		

UNIT PENGOLAHAN AIR PABRIK KERTAS DARI PULP BERBAHAN DASAR BAGASSE TEBU DENGAN PROSES SODA



No.	Kode	Nama Alat
1	L-111	Pompa Sentrifugal - 1
2	F-110	Bak Penampung Air Sungai
3	L-112	Pompa Sentrifugal - 2
4	M-210	Tangki Koagulasi
5	M-220	Tangki Flokulasi
6	H-230	Clarifier
7	F-240	Bak Penampung Flok
8	F-250	Bak Penampung Air Bersih
9	L-251	Pompa Sentrifugal - 3
10	H-260	Sand Filter
11	F-270	Bak Penampung Air Bersih
12	L-271	Pompa Sentrifugal - 4
13	F-280	Bak Penampung Air Sanitasi
14	L-272	Pompa Sentrifugal - 5
15	H-310	Kation Exchanger
16	L-311	Pompa Sentrifugal - 6
17	H-320	Anion Exchanger
18	F-330	Bak Penampung Air Demineralisasi
19	L-331	Pompa Sentrifugal - 7
20	P-340	Boiler
21	L-273	Pompa Sentrifugal - 8
22	F-350	Bak Penampung Air Pendingin
23	F-360	Bak Penampung Air Bekas Pendinginan
24	L-361	Pompa Sentrifugal - 9
25	P-370	Cooling Tower
26	L-371	Pompa Sentrifugal - 10

FLWSHEET UTILITAS PRA RENCANA PABRIK KERTAS DARI PULP BERBAHAN DASAR BAGASSE TEBU DENGAN PROSES SODA

Disusun Oleh:
Adelita Sidabutar (21031010196)

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