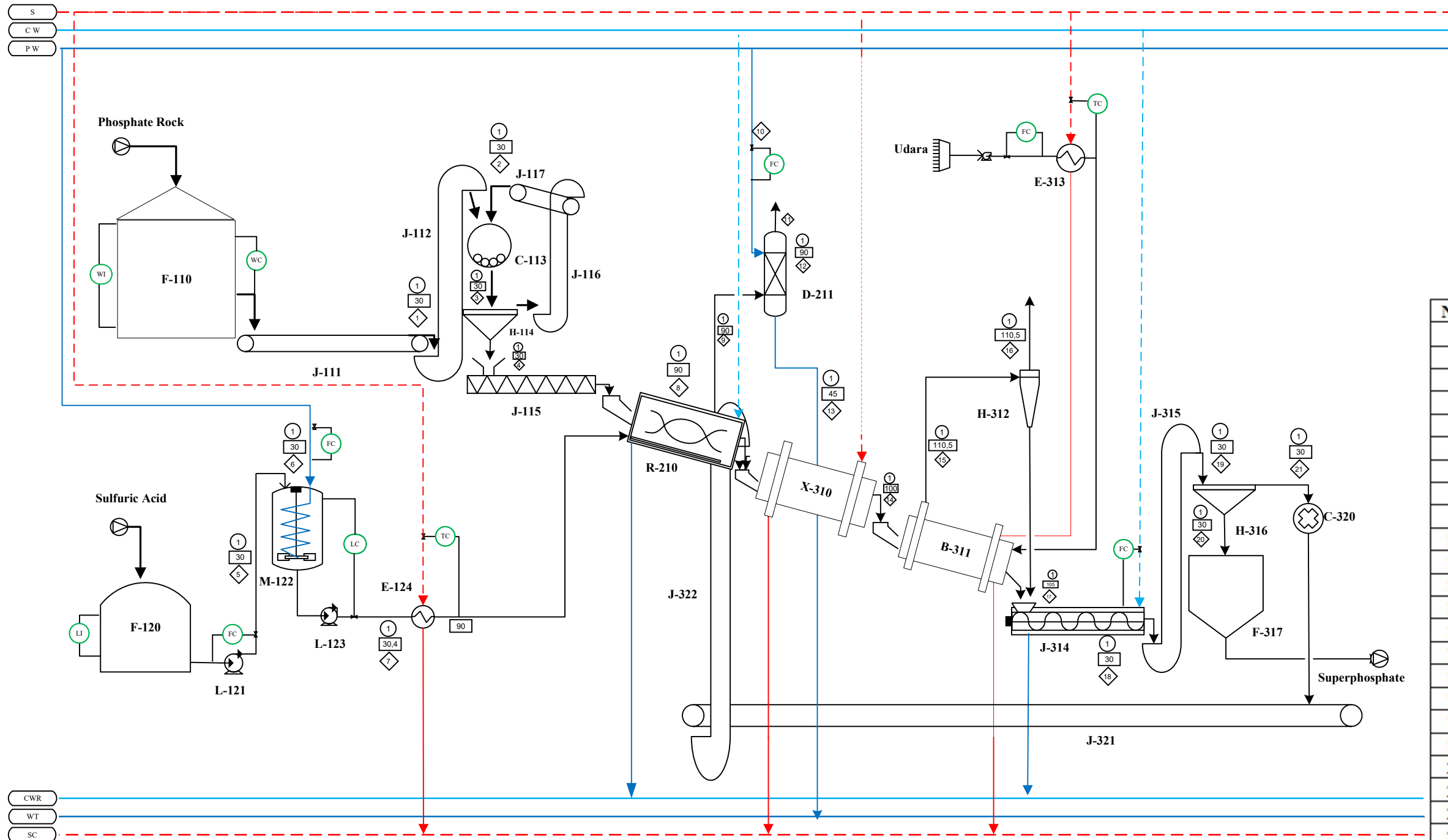


FLOWSHEET PABRIK PUPUK SUPERPHOSPHATE DARI PHOSPHATE ROCK DAN SULFURIC ACID DENGAN PROSES TVA - ROTARY DRUM



KETERANGAN :

 	Temperatur ; °C
◇	Aliran Massa ; kg/jam
○	Tekanan ; atm
S	Steam : 148°C ; 4,5 atm
S C	Steam Condensate
CW	Cooling Water
CWR	Cooling Water Return
P W	Process Water

NO	KODE	NAMA ALAT
1	F-110	Gudang Phosphate Rock
2	J-111	Belt Conveyor
3	J-112	Bucket Elevator
4	C-113	Ball Mill
5	H-114	Screen
6	J-115	Screw Conveyor
7	J-116	Bucket Elevator
8	J-117	Belt Conveyor
9	F-120	Tangki Asam Sulfat
10	M-122	Tangki Pengencer Asam Sulfat
11	L-121	Pompa
12	L-123	Pompa
13	E-124	Heater
14	R-210	Rotary Drum Reaktor
15	D-211	Scrubber
16	X-310	Granulator
17	B-311	Rotary Dryer
18	H-312	Cyclone
19	E-313	Heater
20	J-314	Cooling Conveyor
21	J-315	Bucket Elevator
22	H-316	Screen
23	F-317	Silo Superphosphate
24	C-320	Hammer Mill
25	J-321	Belt Conveyor
26	J-322	Bucket Elevator

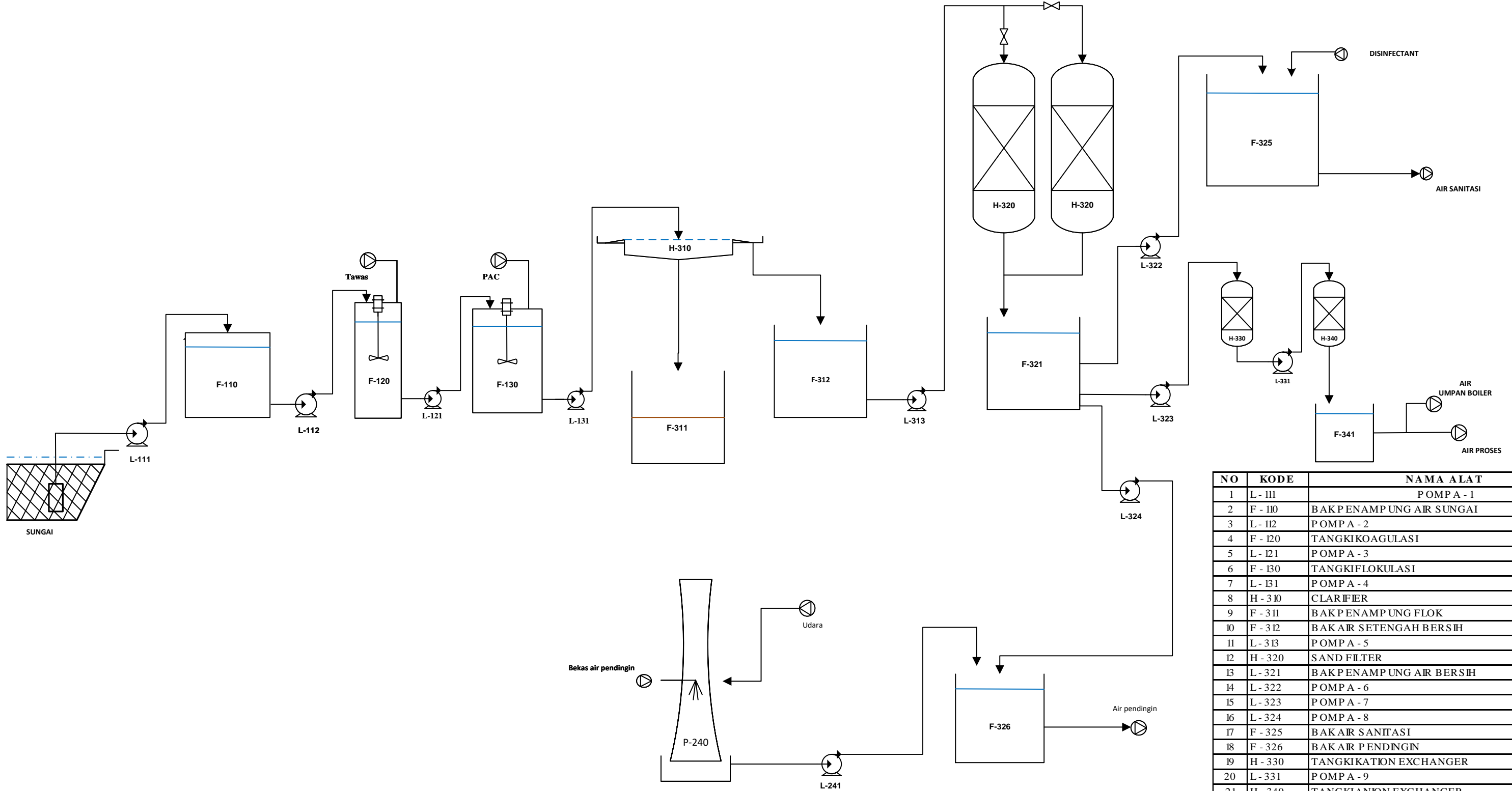
Komponen	Aliran Massa (Kg/Jam)																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Ca ₃ (PO ₄) ₂	2289.8165	114.4908	2289.8165	2175.3257																		
Fe ₂ O ₃	284.9565	14.2478	284.9565	270.7087																		
Al ₂ O ₃	235.5360	11.7768	235.5360	223.7592																		
SiO ₂	103.0470	5.1524	103.0470	97.8947																		
MgO	133.1900	6.6595	133.1900	126.5305																		
CaF ₂	34.3490	1.7175	34.3490	32.6316																		
H ₂ O	424.1050	21.2053	424.1050	402.8998	57.9845	2362.3297	2420.3142	2966.1463		3.0091		0.5015	0.5015	2971.7701	2329.8678	2329.8678	47.5483	47.5483	47.5483	41.9138	5.6345	
H ₂ SO ₄					2841.2384		2841.2384															
CaH ₂ (PO ₄) ₂ ·H ₂ O							1697.5961							1898.7592	1.8988	0.0190	1898.7402	1898.7402	1898.7402	1673.7395	225.0007	
CaHPO ₄ ·2H ₂ O							86.4517							96.6961	0.0967	0.0010	96.6951	96.6951	96.6951	85.2367	11.4584	
Fe ₂ (SO ₄) ₃							676.7717							756.9683	0.7570	0.0076	756.9608	756.9608	756.9608	667.2609	89.6999	
Al ₂ (SO ₄) ₃							750.2514							839.1553	0.8392	0.0084	839.1469	839.1469	839.1469	739.7080	99.4389	
MgSO ₄							379.5915							424.5726	0.4246	0.0042	424.5684	424.5684	424.5684	374.2570	50.3114	
CaSO ₄							1927.3954							2155.7895	2.1558	0.0216	2155.7679	2155.7679	2155.7679	1900.3094	255.4585	
SiO ₂							85.3441						4.1793	4.1793	95.4572	0.0955	0.0010	95.4563	95.4563	95.4563	84.1447	11.3116
SiF ₄							21.7544	21.7544				0.0218	0.0218									
H ₂ SiF ₆												20.0609	20.0609									
Total	3505	175.25	3505	3329.75	2899.2228	2362.3297	5261.5525	8591.3025	21.7544	3.0091	0.0218	24.7635	24.7417	9239.1685	2336.1352	2329.9905	6314.8840	6314.8840	6314.8840	5566.5702	748.3138	

DIDESAIN OLEH : MOH ABIYU HAIDAR
 NPM : 1631010191
 DOSEN PEMBIMBING : Ir. Lucky Indrati Utami, MT

**FLOWSHEET PABRIK PUPUK SUPERPHOSPHATE
 DARI PHOSPHATE ROCK DAN SULFURIC ACID
 DENGAN PROSES TVA - ROTARY DRUM**

PROGRAM STUDI TEKNIK KIMIA
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**FLWSHEET UTILITAS PENGOLAHAN AIR
PABRIK SUPERPHOSPHATE DARI PHOSPHATE ROCK DAN SULFURIC ACID
DENGAN PROSES TVA-ROTARY DRUM**



NO	KODE	NAMA ALAT
1	L - 111	POMPA - 1
2	F - 110	BAK PENAMPUNG AIR SUNGAI
3	L - 112	POMPA - 2
4	F - 120	TANGKIOAGULASI
5	L - 121	POMPA - 3
6	F - 130	TANGKIFLOKULASI
7	L - 131	POMPA - 4
8	H - 310	CLARIFIER
9	F - 311	BAK PENAMPUNG FLOK
10	F - 312	BAK AIR SETENGAH BERSIH
11	L - 313	POMPA - 5
12	H - 320	SAND FILTER
13	L - 321	BAK PENAMPUNG AIR BERSIH
14	L - 322	POMPA - 6
15	L - 323	POMPA - 7
16	L - 324	POMPA - 8
17	F - 325	BAK AIR SANTIASI
18	F - 326	BAK AIR PENDINGIN
19	H - 330	TANGKIKATION EXCHANGER
20	L - 331	POMPA - 9
21	H - 340	TANGKIANION EXCHANGER
22	F - 341	TANGKI AIR DEMINERALISASI
23	P - 240	COOLING TOWER
24	L - 241	POMPA - 10

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SKALA 1 : 100



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