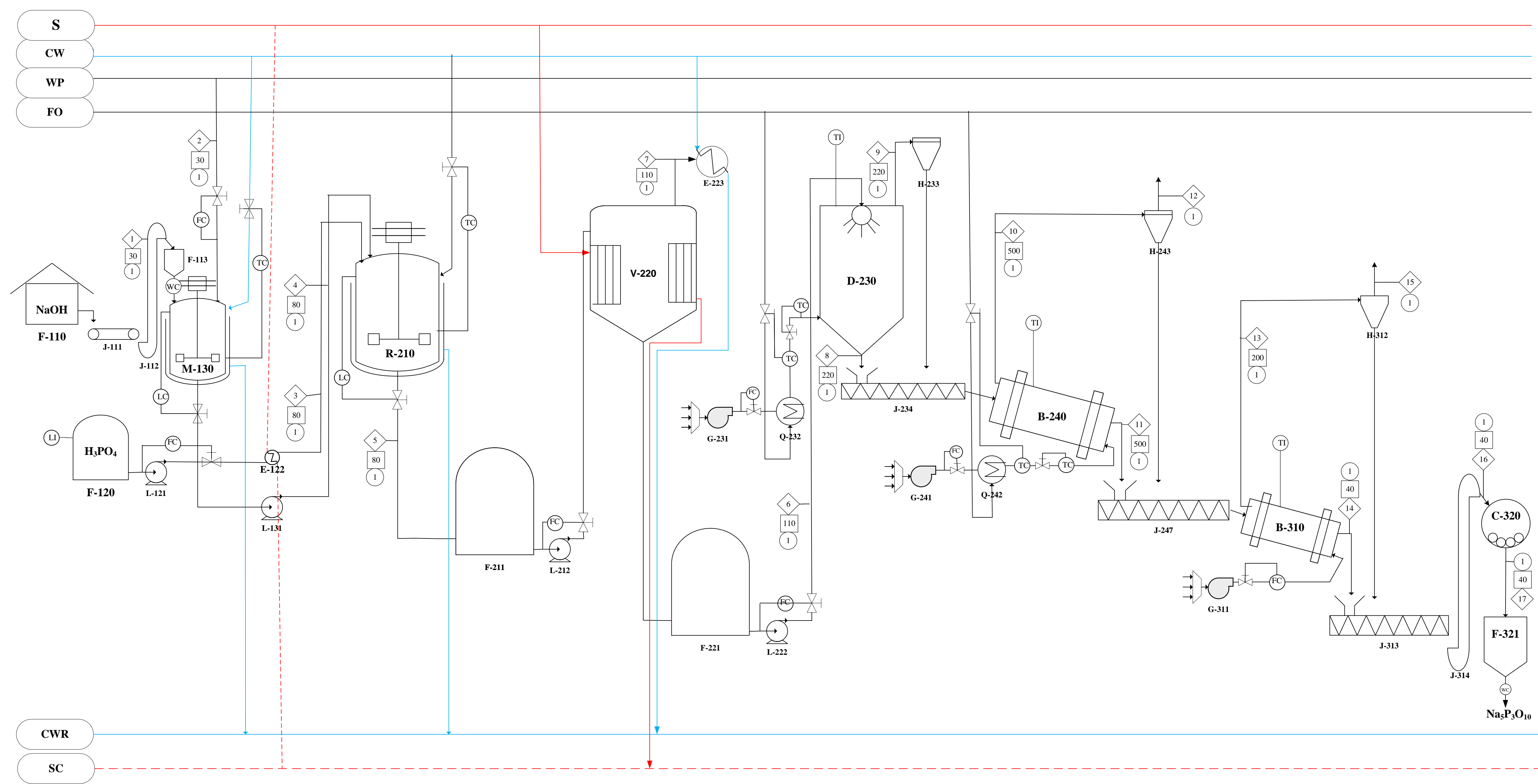


# PRA DESAIN PABRIK PENTASODIUM TRIPHOSPHATE DARI ASAM PHOSPHATE DAN SODIUM HIDROKSIDA DENGAN PROSES DUA TAHAP

**KETERANGAN:**

- ALIRAN MASSA
- TEKANAN
- TEMPERATUR (°C)
- WP WATER PROSES
- CW COOLING WATER
- FO FUEL OIL
- CWR COOLING WATER RECYCLE



KODE ALAT PROSES		
NO	NAMA ALAT	KODE
1	GUDANG SODIUM CARBONATE	F - 110
2	BELT CONVEYOR-1	J - 111
3	BUCKET ELEVATOR-1	J - 112
4	HOPPER SODIUM CARBONATE	F - 113
5	TANGKI PELARUTAN SODIUM CARBONATE	M - 130
6	TANGKI PENYIMPANAN PHOSPORIC ACID	F - 120
7	POMPA PHOSPORIC ACID	L - 121
8	POMPA LARUTAN SODIUM CARBONATE	L - 131
9	HEATER LARUTAN PHOSPORIC ACID	E - 122
10	REAKTOR	R - 210
11	TANGKI PENYIMPANAN ORTHOPHOSPHATE	F - 211
12	POMPA LARUTAN ORTHOPHOSPHATE	L - 212
13	EVAPORATOR	V - 220
14	TANGKI PENYIMPANAN ORTHOPHOSPHATE	F - 221
15	POMPA LARUTAN ORTHOPHOSPHATE	L - 222
16	KONDENSOR	E - 223
17	SPRAY DRYER	D - 230
18	BLOWER SPRAY DRYER	G - 231
19	BURNER SPRAY DRYER	Q - 232
20	CYCLONE SPRAY DRYER	H - 233
21	SCREW CONVEYOR-1	J - 234
22	ROTARY KILN	B - 240
23	BLOWER ROTARY KILN	G - 241
24	BURNER ROTARY KILN	Q - 242
25	CYCLONE ROTARY KILN	H - 243
26	COOLING CONVEYOR-2	J - 247
27	ROTARY COOLER	B - 310
28	BLOWER ROTARY COOLER	G - 311
29	CYCLONE ROTARY COOLER	H - 312
30	SCREW CONVEYOR-2	J - 313
31	BUCKET ELEVATOR-2	J - 314
32	BALL MILL	C - 320
33	SILO SODIUM TRIPOLYPHOSPHATE	F - 321

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FLOWSHEET PERANCANGAN PABRIK PENTASODIUM TRIPHOSPHATE  
DARI ASAM PHOSPHATE DAN SODIUM HIDROKSIDA DENGAN PROSES  
DUA TAHAP

Komponen	Aliran Massa (kg/jam)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NaOH	3089,4445			3089,4445													
H <sub>2</sub> O	1775,5428	1712,4929	799,8386	1775,5428	3965,6314	2670,6913	1294,9401	125,9040	2544,7873	673,9574							
H <sub>3</sub> PO <sub>4</sub>			4532,4186														
NaH <sub>2</sub> PO <sub>4</sub>					1831,4671	1831,4671		1813,1524	18,3147	0,3663	36,2594	0,0037	0,3662	36,2558	0,0037	36,6184	38,4493
Na <sub>2</sub> HPO <sub>4</sub>					4400,1459	4400,1459		4356,1445	44,0015								
Na <sub>5</sub> P <sub>3</sub> O <sub>10</sub>										55,0362	5448,5825	0,5503	55,0307	5448,0376	0,5503	5502,5180	5777,6439
Na <sub>4</sub> P <sub>2</sub> O <sub>7</sub>										1,4269	141,2652	0,0143	1,4268	141,2511	0,0143	142,6636	149,7968
Air Proses																	
<b>Total</b>	<b>4864,9873</b>	<b>1712,4929</b>	<b>5332,2571</b>	<b>4864,9873</b>	<b>10197,2444</b>	<b>8902,3043</b>	<b>1294,9401</b>	<b>6295,2009</b>	<b>2607,1034</b>	<b>730,7867</b>	<b>5626,1072</b>	<b>0,5682</b>	<b>56,8237</b>	<b>5625,5446</b>	<b>0,5682</b>	<b>5681,8000</b>	<b>5965,8900</b>