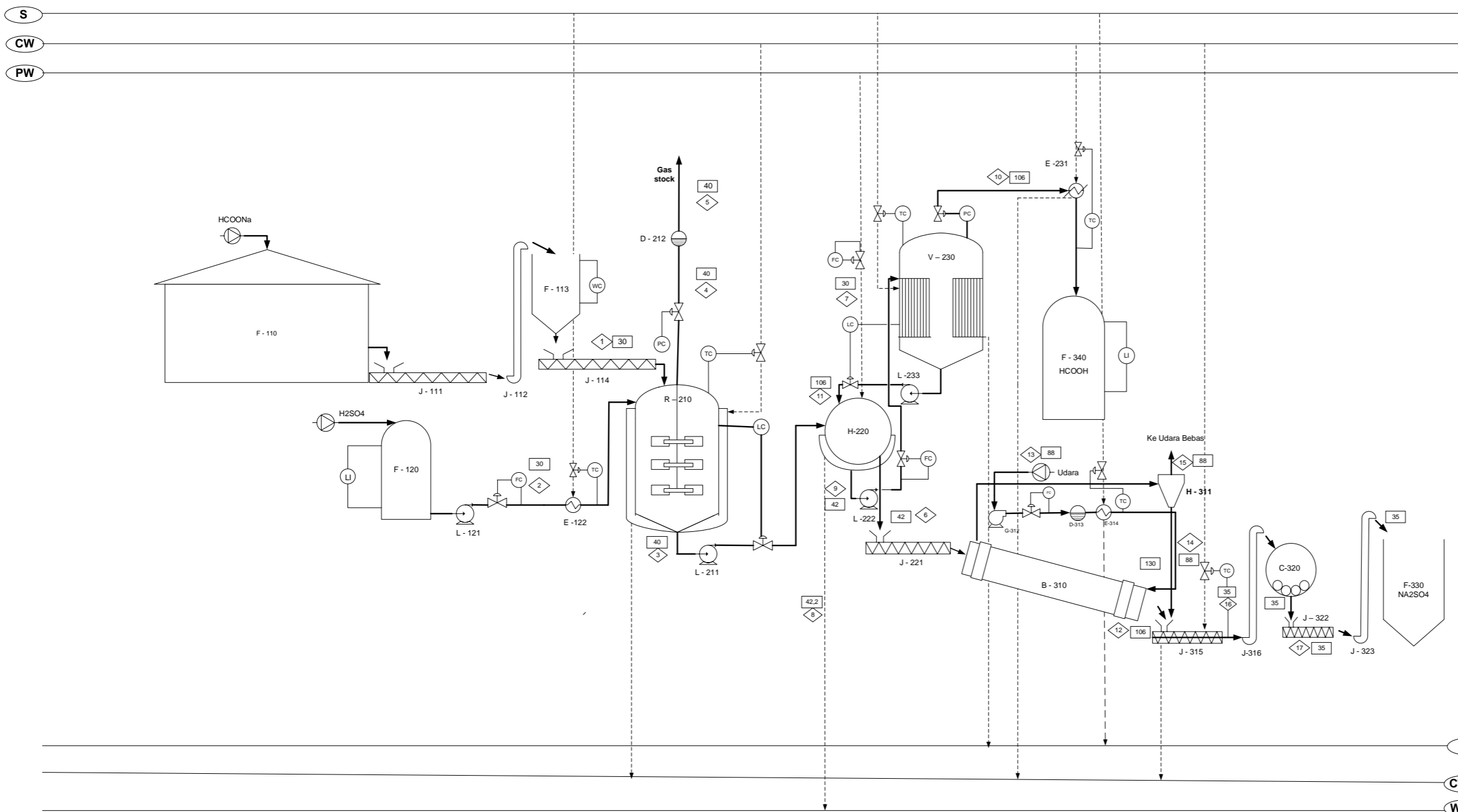


FLOWSHEET PRA-RENCANA PABRIK SODIUM SULPHATE DARI SODIUM FORMATE DAN SULFURIC ACID DENGAN PROSES FORMIC ACID



KETERANGAN :

	Temperatur ; °C		Cooling Water
	Aliran Massa ; kg/jam		Cooling Water Return
	Tekanan ; atm		Process Water
	Steam : 148 °C ; 4,45 atm		Water Treatment Plant
	Steam Condensate		

29	F - 340	TANGKI PENAMPUNG FORMIC ACID
28	F - 330	SILO SODIUM SULPHATE
27	J - 323	BUCKET ELEVATOR - 3
26	J - 322	SCREW CONVEYER - 4
25	C - 320	BALL MILL
24	J - 316	BUCKET ELEVATOR - 2
23	J - 315	COOLING CONVEYOR
22	E - 314	HEAT EXCHANGER
21	D - 313	MOLE CULAR SIEVE
20	G - 312	BLOWER
19	H - 311	CYCLONE
18	B - 310	ROTARY DRYER
17	L - 233	POMPA - 4
16	E - 231	CONDENSER
15	V - 230	EVAPORATOR
14	L - 222	POMPA - 3
13	J - 221	SCREW CONVEYER - 3
12	H - 220	ROTARY DRUM VACUM FILTER
11	D - 212	MOLE CULAR SIEVE
10	L - 211	POMPA - 2
9	R - 210	REAKTOR
8	E - 122	HEATER
7	L - 121	POMPA - 1
6	F - 120	TANGKI SULFURIC ACID
5	J - 114	SCREW CONVEYER - 2
4	F - 113	HOPPER SODIUM FORMATE
3	J - 112	BUCKET ELEVATOR - 1
2	J - 111	SCREW CONVEYER - 1
1	F - 110	GUDANG SODIUM FORMATE

PRA-RENCANA PABRIK SODIUM SULPHATE DARI SODIUM FORMATE DAN SULFURIC ACID DENGAN PROSES FORMIC ACID

DIDESAIN OLEH : YURICO SISWAHYUDA PUTRA
18031010141

DOSEN PEMBIMBING : DR. IR. SHINTA SORAYA SANTI, MT

PROGRAM STUDI TEKNIK KIMIA
FAKULTAS TEKNIK
UNIVERSITAS PEMBANGUNAN NASIONAL
"VETERAN" JAWA TIMUR
2022

ALIRAN NERACA MASSA (KG/JAM)																	
KOMPONEN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
HCOONa	10818,3342		540,9167			107,4037			431,3211		431,3211	106,3297	1,0740	1,0739	0,0001	107,4036	107,4036
NaOH	22,0782																
NaCl	22,0782																
Na2CO3	55,1956																
Na2S	11,0391																
H2O	110,3912	153,3923	283,0915			2,7743	2690,8650	2910,5275	280,2606	778,8443	587,3694	1,10972	1,6646		1,6646	1,1097	1,1097
H2SO4		7516,2244															
Na2SO4			10890,8557			10585,1489			89,6834		67,2625	10501,0501	106,0712	105,0105	1,0607	10606,0606	10606,0606
HCOOH			6952,3706			68,1332			6882,8469	6882,8469		0,0000	68,1332		68,1332	0,0000	0,0000
CO2				13,7753	0,1378												
HCl				22,9114	0,2291												
H2S				4,8119	0,0481												
TOTAL	11039,1165	7669,6167	18667,2346	41,4986	0,4150	10763,4601	2690,8650	2910,5275	7684,1121	7661,6912	10608,4895	176,9431	106,0844	70,8586	10714,5739	10714,5739	