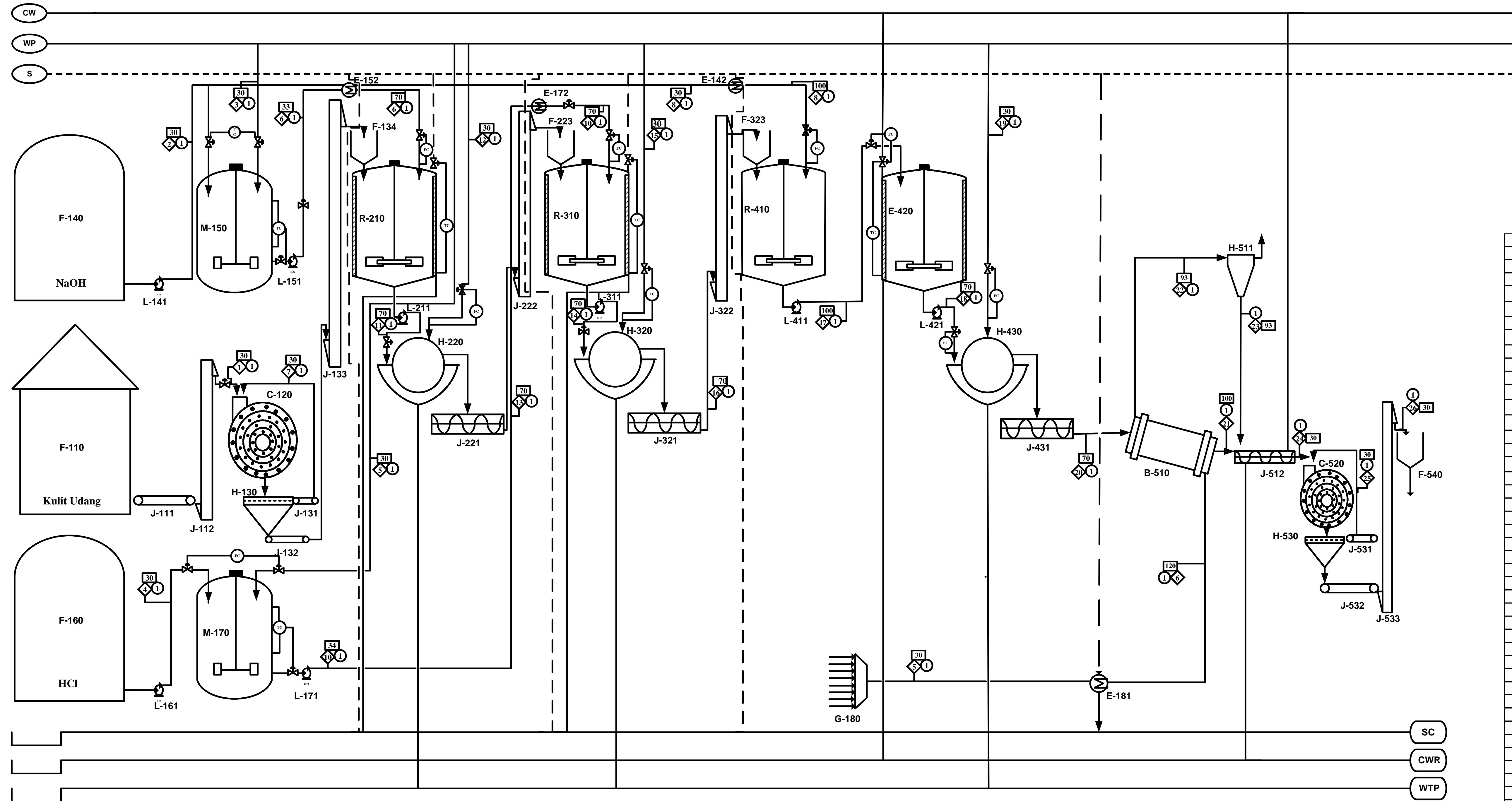


PABRIK KITOSAN DARI LIMBAH KULIT UDANG DENGAN PROSES KIMIA



KETERANGAN :

	Temperatur ; °C
	Aliran Massa ; kg/jam
	Tekanan ; atm
	Steam : 148°C ; 4,5 atm
	Steam Condensate
	Cooling Water
	Cooling Water Return
	Process Water
	Waste Treatment Plant

No	Kode	Nama Alat
1	F-110	TANGKI KULIT UDANG
2	J-111	BELT CONVEYOR
3	J-112	BUCKET ELEVATOR
4	C-120	CAGE MILL
5	H-130	SCREEN
6	J-131	BELT CONVEYOR
7	J-132	BELT CONVEYOR
8	J-133	BUCKET ELEVATOR
9	F-134	HOPPER
10	F-140	TANGKI NaOH
11	L-140	POMPA
12	E-142	HEATER
13	M-150	MIXER I
14	L-151	POMPA
15	E-152	HEATER
16	F-160	TANGKI HCl
17	L-161	POMPA
18	M-170	MIXER II
19	L-171	POMPA
20	E-172	HEATER
21	G-180	BLOWER
22	E-181	HEATER
23	R-210	REAKTOR DEPROTEINASI
24	L-211	POMPA
25	H-220	ROTARY DRUM VAKUM FILTER
26	J-221	SCREW CONVEYOR
27	J-222	BUCKET ELEVATOR
28	F-223	HOPPER
29	R-310	REAKTOR DEMINERALISASI
30	L-311	POMPA
31	H-320	ROTARY DRUM VAKUM FILTER
32	J-321	SCREW CONVEYOR
33	J-322	BUCKET ELEVATOR
34	F-323	HOPPER
35	R-410	REAKTOR DEASETILASI
36	L-411	POMPA
37	E-420	TANGKI PENDINGIN
38	L-421	POMPA
39	H-430	ROTARY DRUM VAKUM FILTER
40	J-431	SCREW CONVEYOR
41	B-510	ROTARY DRYER
42	H-511	CYCLONE
43	E-512	COOLING CONVEYOR
44	C-520	CAGE MILL II
45	H-530	SCREEN
46	J-531	BELT CONVEYOR
47	J-532	BELT CONVEYOR
48	J-533	BUCKET ELEVATOR
49	F-540	SILO

ALIRAN NERACA MASSA (KG/JAM)

Komponen	1	2	3	4	5	6	7	8	9	10	11	12a	12b	13	14	15a	15b	16	17	18	19a	19b	20	21	22	23a	23b	24	25	26		
Protein	1880,8555						98,9924		1880,8555																							
Kitin	2239,1137						117,8481		2239,1137		2239,1137			2239,1137	2239,1137			2239,1137	223,9114	223,9114				223,9114	201,5202	22,3911	19,0325	3,3587	220,5527	38,9211	220,5527	
CaCO ₃	2149,5492						113,1342		2149,5492		2149,5492			2149,5492																		
Ca ₃ (PO ₄) ₂	2686,9364						141,4177		2686,9364		2686,9364			2686,9364																		
NaOH	16052,4077							3223,0027			3223,0027		3196,0372	26,9654	26,9654		26,8906	0,0749	12669,9909	12669,9909		12591,6501	78,3408	70,5067	7,8341	6,6590	1,1751	77,1657	13,6175	77,1657		
H ₂ O	24078,6115	84028,2837	5716,6062	75833,2138			4834,5040		81549,8199	88862,7877	1768,8998	89888,2116	743,4760	82680,2147	559,7784	83010,3753	229,6178	19235,3216	19235,3216	455,4769	19571,8631	118,9354	17,1483				101,7871	17,1483	3,0262	17,1483		
HCl			3357,3719						3357,3719								523,2502	521,7971	1,4532													
Udara						3745,9044																										
Na-Proteinat											1880,8555		1865,1192	15,7363	15,7363		15,6926	0,0437	0,0437	0,0437		0,0434	0,0003	0,0002	0,0000	0,0000	0,0000	0,0003	0,0000	0,0003		
Ca ₃ (H ₂ PO ₄) ₂															2028,2538		2022,6209	5,6328	5,6328	5,6328		5,5980	0,0348					0,0348				
CaCl ₂															4309,4180		4297,4500	11,9680	11,9680	11,9680		11,8940	0,0740	0,0666	0,0074	0,0063	0,0011	0,0729	0,0129	0,0729		
CO ₂																																
Kitosan																				1597,9963	1597,9963			1597,9963	1438,1967	159,7996	135,8297	23,9699	1574,0264	277,7694	1574,0264	
NaCl																				2,3282	2,3282			0,0144	0,0130	0,0014	0,0012	0,0002	0,0142	0,0025	0,0142	
CH ₃ COONa																				814,2238	814,2238			809,1893	5,0345	4,5310	0,5034	0,4279	0,0755	4,9590	0,8751	4,9590
Total	8956,4548	40131,0192	84028,2837	9073,9780	75833,2138	3745,9044	471,3924	8057,5067	8956,4548	84907,1918	101042,2452	1768,8998	94949,3680	7861,7770	91822,9522	559,7784	89894,8265	2487,9041	34561,4167	34561,4167	455,4769	32992,5518	2024,3419	1731,9828	190,5372	161,9566	130,4025	1893,9394	334,2246	1893,9394		

DIGAMBAR OLEH : ABDULLAH TSANI MUTTAQIN NK
 NPM : 17031010067
 DOSEN PEMBIMBING : Ir. ISNI UTAMI, MT

FLOWSHEET
 PABRIK KITOSAN DARI LIMBAH KULIT UDANG DENGAN PROSES KIMIA

JURUSAN TEKNIK KIMIA
 FAKULTAS TEKNIK
 UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" JAWA TIMUR
 2023