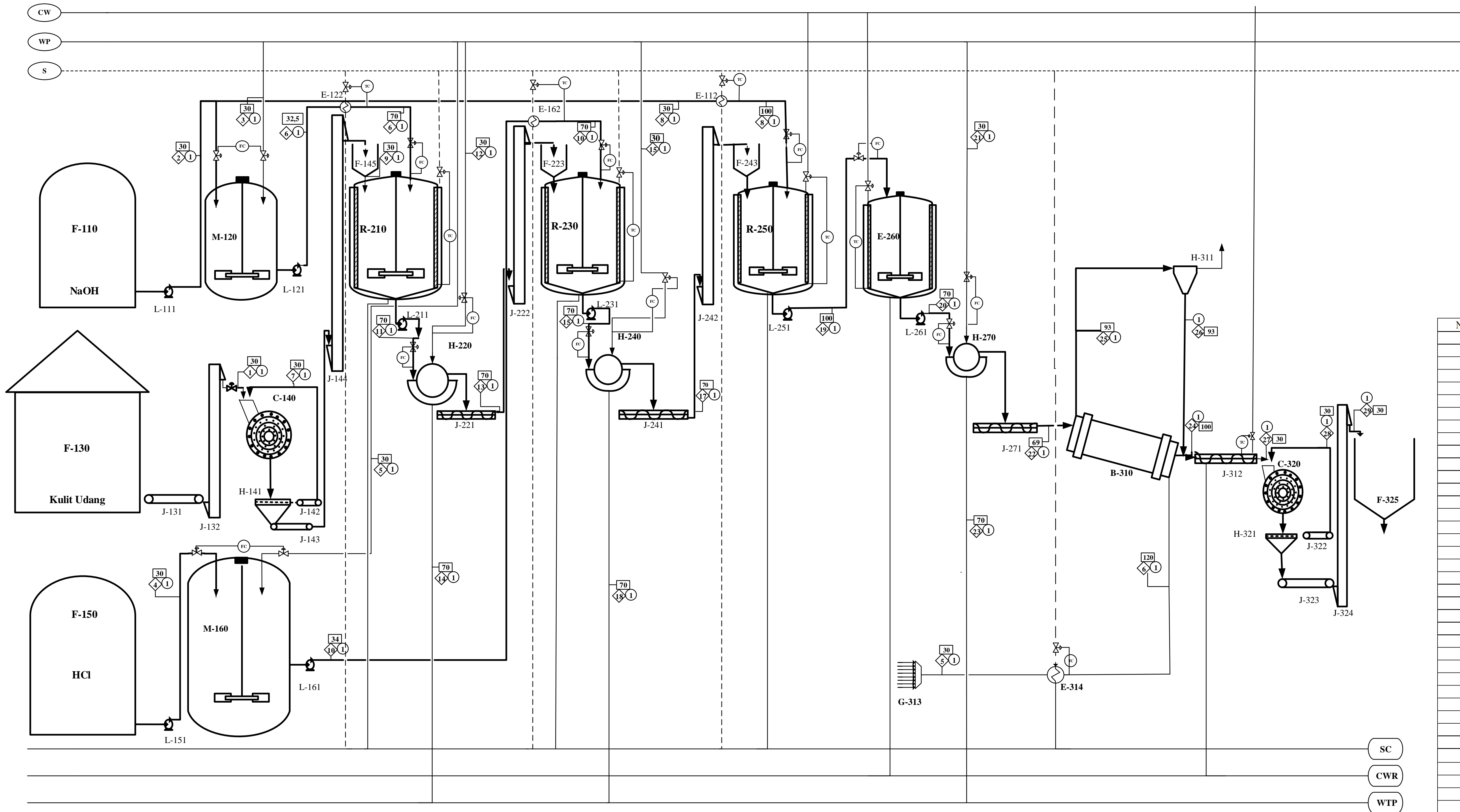


# PABRIK KITOSAN DARI LIMBAH KULIT UDANG DENGAN PROSES KIMIA



KETERANGAN :

<span style="border: 1px solid black; padding: 2px;">  </span>	Temperatur ; °C
<span style="border: 1px solid black; padding: 2px;">◇</span>	Aliran Massa ; kg/jam
<span style="border: 1px solid black; padding: 2px;">○</span>	Tekanan ; atm
<span style="border: 1px solid black; padding: 2px;">S</span>	Steam : 148°C ; 4,5 atm
<span style="border: 1px solid black; padding: 2px;">S C</span>	Steam Condensate
<span style="border: 1px solid black; padding: 2px;">C W</span>	Cooling Water
<span style="border: 1px solid black; padding: 2px;">C W R</span>	Cooling Water Return
<span style="border: 1px solid black; padding: 2px;">P W</span>	Process Water
<span style="border: 1px solid black; padding: 2px;">W T P</span>	Waste Treatment Plant

Nomor	Nama Alat	Kode
1	GUDANG PENYIMPANAN NaOH	F-110
2	POMPA	L-111
3	HEATER	E-112
4	MIXER 1	M-120
5	POMPA	L-121
6	HEATER	E-122
7	GUDANG PENYIMPANAN KULIT UDANG	F-130
8	BELT CONVEYOR	J-131
9	BUCKET ELEVATOR	J-132
10	CAGE MILL	C-140
11	VIBRATING SCREEN	H-141
12	BELT CONVEYOR	J-142
13	BELT CONVEYOR	J-143
14	BUCKET ELEVATOR	J-144
15	HOOPER 1	F-145
16	GUDANG PENYIMPANAN HCL	F-150
17	POMPA	L-151
18	MIXER 2	M-160
19	POMPA	L-161
20	HEATER 2	E-162
21	REAKTOR DEPROTEINASI	R-210
22	POMPA	L-211
23	RDVF 1	H-220
24	SCREW CONVEYOR	J-221
25	BUCKET ELEVATOR	J-222
26	HOOPER 2	F-223
27	REAKTOR DEMINERASILASI	R-230
28	POMPA	L-231
29	RDVF 2	H-240
30	SCREW CONVEYOR	J-241
31	BUCKET ELEVATOR	J-242
32	HOOPER	F-243
33	REAKTOR DEASETILASI	R-250
34	POMPA	L-251
35	TANGKI PENDINGIN	E-260
36	POMPA	L-261
37	RDVF 3	H-270
38	SCREW CONVEYOR	J-271
39	ROTARY DRYER	B-310
40	CYCLONE	H-311
41	COOLING CONVEYOR	J-312
42	BLOWER	G-313
43	HEATER	E-314
44	CAGE MILL	C-320
45	VIBRATING SCREEN	H-321
46	BELT CONVEYOR	J-322
47	BELT CONVEYOR	J-323
48	BUCKET ELEVATOR	J-324
49	SILO	F-325

Komponen	ALIRAN NERACA 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		
Protein	1236,4884						65,0783			1236,4884																					
Kitin	1472,01						77,4742			1472,01		1472,00998		1472,01		1472,01		1472,01		147,201	147,201		147,201		132,4809	14,7201	14,572899	147,0538	25,95067	147,0538	
CaCO <sub>3</sub>	1413,1296						74,375241			1413,1296		1413,12958		1413,1296																	
Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	1766,412						92,9691			1766,412		1766,41197		1766,412																	
NaOH		10552,972				2118,8259				2118,8259		2118,82588		17,727287	2101,0986	17,727287		0,0492319	17,678055	8329,3461	8329,3461	299,43391	51,501823	8277,8443	46,351641	5,1501823	5,0986805	51,450321	9,0794684	51,450321	
H <sub>2</sub> O		15829,458	55240,818	3758,1393	49853,318	58419,056				58419,056		53611,457	58419,06	1162,8879	488,76662	59093,178	54354,587	368,002	150,95245	54571,637	12645,443	12645,443		78,189016	12866,688	11,273449			11,273449	1,9894322	11,273449
HCl				2207,1612						2207,1612						343,9886		0,9553181	343,03328												
Udara																															
Na-Proteinat											1236,48838		10,345156	1226,1432	10,345156		0,0287304	343,03328	0,0287304	0,0287304		0,0001776	0,0285527	0,0001599	0,00002	0,00002	0,0001775	0,00003	0,0001775		
Ca(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub>																															
CaCl <sub>2</sub>																															
CO <sub>2</sub>																															
Kitosan																															
NaCl																															
CH <sub>3</sub> COONa																															
TOTAL	5888,0399	26382,43	55240,818	5965,3005	49853,318	60537,882	309,89684	60537,882	5888,0399	55818,618	66425,9222	1162,8879	5168,3906	62420,419	60987,009	368,00249	1635,5666	56615,384	22720,932	22720,932	299,43391	1330,8174	21689,549	1138,6184	125,26055	124,00794	1262,6263	222,81641	1262,6263		

Digambar Oleh : Tsania Hilda Nur Addini  
 NPM : 17031010173

Dosen Pembimbing : Ir. Isni Utami, MT

**FLWSHEET PERANCANGAN PABRIK KITOSAN  
 DARI LIMBAH KULIT UDANG  
 DENGAN PROSES KIMIA  
 KAPASITAS 10000 TON/TAHUN**  
 PROGRAM STUDI TEKNIK KIMIA  
 FAKULTAS TEKNIK