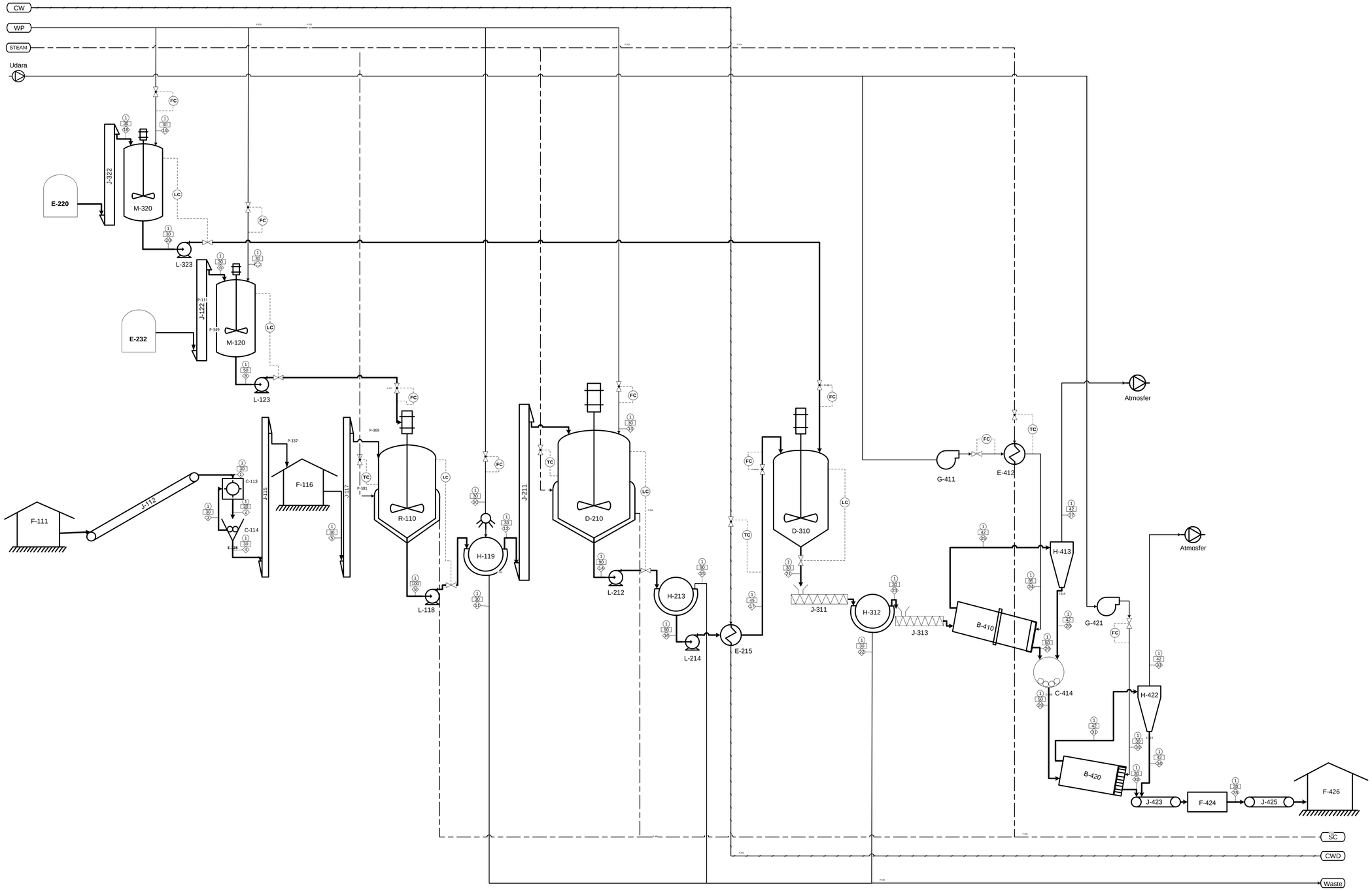
PRA RANCANGAN PABRIK *REFINED CARRAGEENAN* MENGGUNAKAN PROSES PRESIPITASI KALIUM KLORIDA DENGAN KAPASITAS 30.000 TON/TAHUN



KETERANGAN

WP	Water Process
CW	Cooling Water
CWD	Cooling Water DIscharge
STEAM	Steam
SC	Steam Condensate
	Tekanan
	Nomor Aliran
	Suhu
FC	Flow Control
TC	Temperature Control

40	F-426	Gudang Produk
39	J-425	Belt Conveyor III
38	F-424	Packaging
37	J-423	Belt Conveyor II
36	H-422	Cyclone II
35	G-421	Blower II
34	B-420	Rotary Cooler
33	C-414	Ball Mill
32	H-413	Cyclone I
31	E-412	Heater
30	G-411	Blower I
29	B-410	Rotary Dryer
28	J-313	Screw Conveyor II
27	H-312	Rotary Filter II
26	J-311	Screw Conveyor I
25	L-323	Pompa Larutan KCl
24	M-320	Tangki Pelarutan KCl
23	J-322	Bucket Elevator V
22	F-321	Tangki Penyimpanan KCl
21	D-310	Tangki Presipitasi
20	E-215	Cooler
19	L-214	Pompa Rotary Filter
18	H-213	Rotary Filter I
17	L-212	Pompa Tangki Ekstraksi
16	D-210	Tangki Ekstraksi
15	J-211	Bucket Elevator IV
14	L-123	Pompa Larutan KOH
13	J-122	Bucket Elevator III
12	M-120	Tangki Pelarutan KOH
11	F-121	Tangki Penyimpanan KOH
10	H-119	Rotary Washer
9	L-118	Pompa Reaktor
8	J-117	Bucket Elevator II
7	F-116	Gudang Bahan Baku II
6	J-115	Bucket Elevator I
5	C-114	Toothed Roll Crusher
4	C-113	Rotary Cutter
3	J-112	Belt Conveyor I
2	F-111	Gudang Bahan Baku I
1	R-110	Reaktor
No.	**Kode Alat**	**Nama Alat**

PRA RANCANGAN PABRIK *REFINED CARRAGEENAN* MENGGUNAKAN PROSES PRESIPITASI KALIUM KLORIDA DENGAN KAPASITAS 30.000 TON/TAHUN	
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NPM :	20031010161
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	PROGRAM STUDI TEKNIK KIMIA FAKULTAS TEKNIK DAN SAINS UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" JAWA TIMUR 2024

Komponen	Aliran 1	Aliran 2	Aliran 3	Aliran 4	Aliran 5	Aliran 6	Aliran 7	Aliran 8	Aliran 9	Aliran 10	Aliran 11	Aliran 12	Aliran 13	Aliran 14	Aliran 15	Aliran 16	Aliran 17	Aliran 18
	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam
Air	2500,96	2384,13	383,21	2500,96	0	387,42	387,42	3450,37	1087,78	4788,93	1508,14	2383,97	2384,13	114,21	2384,13	2384,13	0	4238,78
Alu	2475,78	2360,82	379,04	2475,78	0	0	0	2475,78	0	0	2475,78	0	2475,78	1,28	2469,26	2469,26	0	0
Protein	268,86	256,36	41,19	268,86	0	0	0	268,86	0	0	268,86	0	268,86	268,86	0	0	0	0
Sera	478,22	456,08	73,27	478,22	0	0	0	478,22	0	0	478,22	0	478,22	478,22	0	0	0	0
Lemak	33,56	32,02	5,15	33,56	0	0	0	33,56	0	0	33,56	0	33,56	33,56	0	0	0	0
α-karageenan	2502,26	2386,08	383,38	2502,26	0	0	0	2481,93	0	0	2481,93	0	2481,93	1,84	2477,10	2477,10	0	0
γ-karageenan	443,88	423,31	68,04	443,88	0	0	0	391,73	0	0	391,73	0	391,73	0,40	391,37	391,37	0	0
KCl	0	0	0	0	2300,47	0	2300,47	1888,49	0	0	1888,49	0	1888,49	0,00	1888,47	1888,47	0	0
K_2SO_4	0	0	0	0	0	0	0	1234,47	0	0	1234,47	0	1234,47	0,01	1234,46	1234,46	0	0
KOH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4403,88	0
Volume Karing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,00	0
Total	12027,92	11434,47	1832,24	12027,92	2300,47	387,42	2687,89	14031,90	1087,78	5076,93	11018,36	2383,97	13402,33	1189,20	13591,94	13591,94	4403,88	4238,78

Komponen	Aliran 19	Aliran 20	Aliran 21	Aliran 22	Aliran 23	Aliran 24	Aliran 25	Aliran 26	Aliran 27	Aliran 28	Aliran 29	Aliran 30	Aliran 31	Aliran 32	Aliran 33	Aliran 34	Aliran 35	Aliran 36
	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam
Air	4238,78	4238,78	4238,78	4238,78	0	4238,78	4238,78	4238,78	0	4238,78	4238,78	4238,78	0	4238,78	4238,78	4238,78	0	4238,78
Alu	0	2469,26	2469,26	2469,26	0	2469,26	2469,26	2469,26	0	2469,26	2469,26	2469,26	0	2469,26	2469,26	2469,26	0	2469,26
Protein	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lemak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
α-karageenan	0	2477,10	2477,10	2477,10	0	2477,10	2477,10	2477,10	0	2477,10	2477,10	2477,10	0	2477,10	2477,10	2477,10	0	2477,10
γ-karageenan	0	391,37	391,37	391,37	0	391,37	391,37	391,37	0	391,37	391,37	391,37	0	391,37	391,37	391,37	0	391,37
KCl	0	1888,47	1888,47	1888,47	0	1888,47	1888,47	1888,47	0	1888,47	1888,47	1888,47	0	1888,47	1888,47	1888,47	0	1888,47
K_2SO_4	0	1234,46	1234,46	1234,46	0	1234,46	1234,46	1234,46	0	1234,46	1234,46	1234,46	0	1234,46	1234,46	1234,46	0	1234,46
KOH	4403,88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volume Karing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	8642,66	13209,24	13209,24	13209,24	0	13209,24	13209,24	13209,24	0	13209,24	13209,24	13209,24	0	13209,24	13209,24	13209,24	0	13209,24

Komponen	Aliran 37	Aliran 38	Aliran 39	Aliran 40	Aliran 41	Aliran 42	Aliran 43	Aliran 44	Aliran 45	Aliran 46	Aliran 47	Aliran 48	Aliran 49	Aliran 50	Aliran 51	Aliran 52	Aliran 53	Aliran 54
	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam
Air	0	4238,78	4238,78	4238,78	0	0,78	0,78	0,78	0	0,78	0,78	0,78	0	0,78	0,78	0,78	0	0,78
Alu	0	2469,26	0	2469,26	2469,26	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0,13	0	0,13
Protein	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lemak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
α-karageenan	0	2477,10	2477,10	2477,10	0	24,77	24,77	24,77	0	24,77	24,77	24,77	0	24,77	24,77	24,77	0	24,77
γ-karageenan	0	391,37	0	391,37	391,37	3,91	3,91	3,91	0	3,91	3,91	3,91	0	3,91	3,91	3,91	0	3,91
KCl	0	1888,47	1888,47	1888,47	0	0,00001887471	0,00	0,00001887471	0	0,00001887471	0,00	0,00001887471	0	0,00001887471	0,00	0,00001887471	0	0,00001887471
K_2SO_4	0	1234,46	1234,46	1234,46	0	0,01	0,01	0,01	0	0,01	0,01	0,01	0	0,01	0,01	0,01	0	0,01
KOH	4403,88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Volume Karing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4403,88	13209,24	8805,76	13209,24	3861,01	28,79	28,79	28,79	0,13	28,79	28,79	28,79	0,13	28,79	28,79	28,79	0,13	28,79

Komponen	Aliran 55	Aliran 56	Aliran 57	Aliran 58	Aliran 59	Aliran 60	Aliran 61	Aliran 62	Aliran 63	Aliran 64	Aliran 65	Aliran 66
	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam	kg/jam
Air	0,78	0,78	0,78	0	0,78	0,78	0,78	0	0,78	0,78	0,78	0
Alu	0,13	0,13	0,13	0	0,13	0,13	0,13	0	0,13	0,13	0,13	0
Protein	0	0	0	0	0	0	0	0	0	0	0	0
Sera	0	0	0	0	0	0	0	0	0	0	0	0
Lemak	0	0	0	0	0	0	0	0	0	0	0	0
α-karageenan	24,77	24,77	24,77	0	24,77	24,77	24,77	0	24,77	24,77	24,77	0
γ-karageenan	3,91	3,91	3,91	0	3,91	3,91	3,91	0	3,91	3,91	3,91	0
KCl	0,00001887471	0,00	0,00001887471	0	0,00001887471	0,00	0,00001887471	0	0,00001887471	0,00	0,00001887471	0
K_2SO_4	0,01	0,01	0,01	0	0,01	0,01	0,01	0	0,01	0,01	0,01	0
KOH	0	0	0	0	0	0	0	0	0	0	0	0
Volume Karing	0	0	0	0	0	0	0	0	0	0	0	0
Total	28,79	28,79	28,79	0	28,79	28,79	28,79	0	28,79	28,79	28,79	0