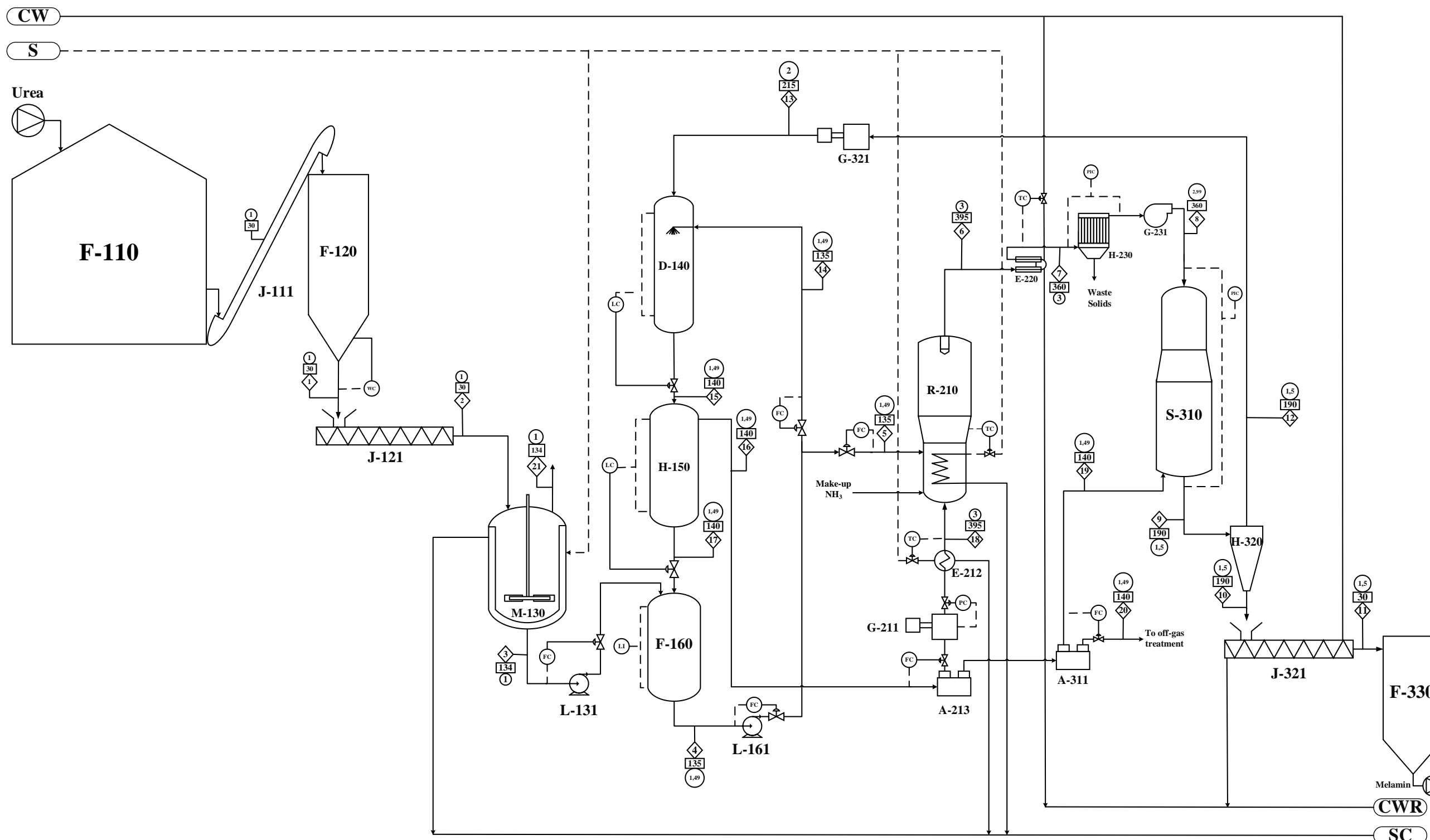


PRA RANCANGAN PABRIK MELAMINE DARI UREA DENGAN PROSES BASF

KAPASITAS 40.000 TON



◇	Nomor Aliran Massa (Kg/Jam)
□	Temperatur (°C)
○	Tekanan (atm)
S	Steam
CW	Cooling Water
SC	Steam Condensate
CWR	Cooling Water Return

Nomor	Kode	Nama Alat
1	F-110	Gudang Penyimpanan Urea
2	J-111	Screw Conveyor-1
3	F-120	Silo Urea
4	J-121	Screw Conveyor-2
5	M-130	Melter Urea
6	L-131	Pompa-1
7	D-140	Scrubber
8	H-150	Separator
9	F-160	Holding Tank
10	L-161	Pompa-2
11	G-321	Compressor-2
12	R-210	Fluidized Bed Reactor
13	E-212	Pre Heater
14	G-211	Compressor-1
15	A-213	Gas Splitter-1
16	H-230	Gas Filter
17	A-311	Gas Splitter-2
18	E-220	Gas Cooler
19	G-231	Blower
20	K-232	Expansion Valve
21	S-310	Desublimer
22	H-320	Cyclone
23	J-321	Cooling Screw Conveyor
24	F-330	Silo Melamin

FLOWSHEET PABRIK MELAMINE DARI UREA DENGAN PROSES BASF	
NAMA	Yonathan Juanto
NPM	20031010065
DOSEN PEMBIMBING	
Ir. Mu'tasim Billah, MS	
	PROGRAM STUDI TEKNIK KIMIA FAKULTAS TEKNIK & SAINS UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" JAWA TIMUR 2024

Stream	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Komponen (kg/hr)																						
CH ₄ N ₂ O (Urea)	14.308,0	14.308,0	11.177,3	14.308,0	12.304,9	1.061,0	1.061,0	1.061,0	1.061,0	2,5	2,5	1.058,4	1.058,4	2.003,1	3.066,6		3.066,6					
C ₂ H ₅ N ₃ O ₂ (Biuret)	72,2	72,2	56,4	73,6	63,3	73,6	73,6	73,6	73,6	2,5	2,5	71,1	71,1	10,3	81,4		81,4					
H ₂ O (Air)	50,5	50,5																			50,5	
C ₃ H ₆ N ₆ (Melamin)						5.050,5	5.050,5	5.050,5	5.050,5	5.045,5	5.045,5	5,1	5,1									
NH ₃ (Ammonia)						4.091,8	4.091,8	4.091,8	12.341,0			12.341	12.341,0		12.341	12.341,0		2.130,6	8.249,2	1.961,3		
CO ₂ (Karbon Dioksida)						5.287,2	5.287,2	5.287,2	9.411,8			9.411,8	9.411,8		9.411,8	9.411,8		1.065,3	4.124,6	4.221,9		
Total	14.430,7	14.430,7	11.233,6	14.381,7	12.368,2	15.564,1	15.564,1	15.564,1	27.937,8	5.050,5	5.050,5	22.887	22.887,3	2.013,4	24.901	21.752,7	3.148,0	3.195,9	12.374	6.183,1	50,5	
Temperatur (°C)	30,0	30,0	134,0	135,0	135,0	395,0	360,0	360,0	190,0	190,0	190,0	190,0	190,0	135,0	140,0	140,0	140,0	140,0	395,0	140,0	140,0	134,0
Tekanan (atm)	atm	atm	atm	1,49	1,49	3,0	3,0	2,99	1,5	1,5	1,5	1,5	2,00	1,49	1,49	1,49	1,49	3,0	1,49	1,49	atm	