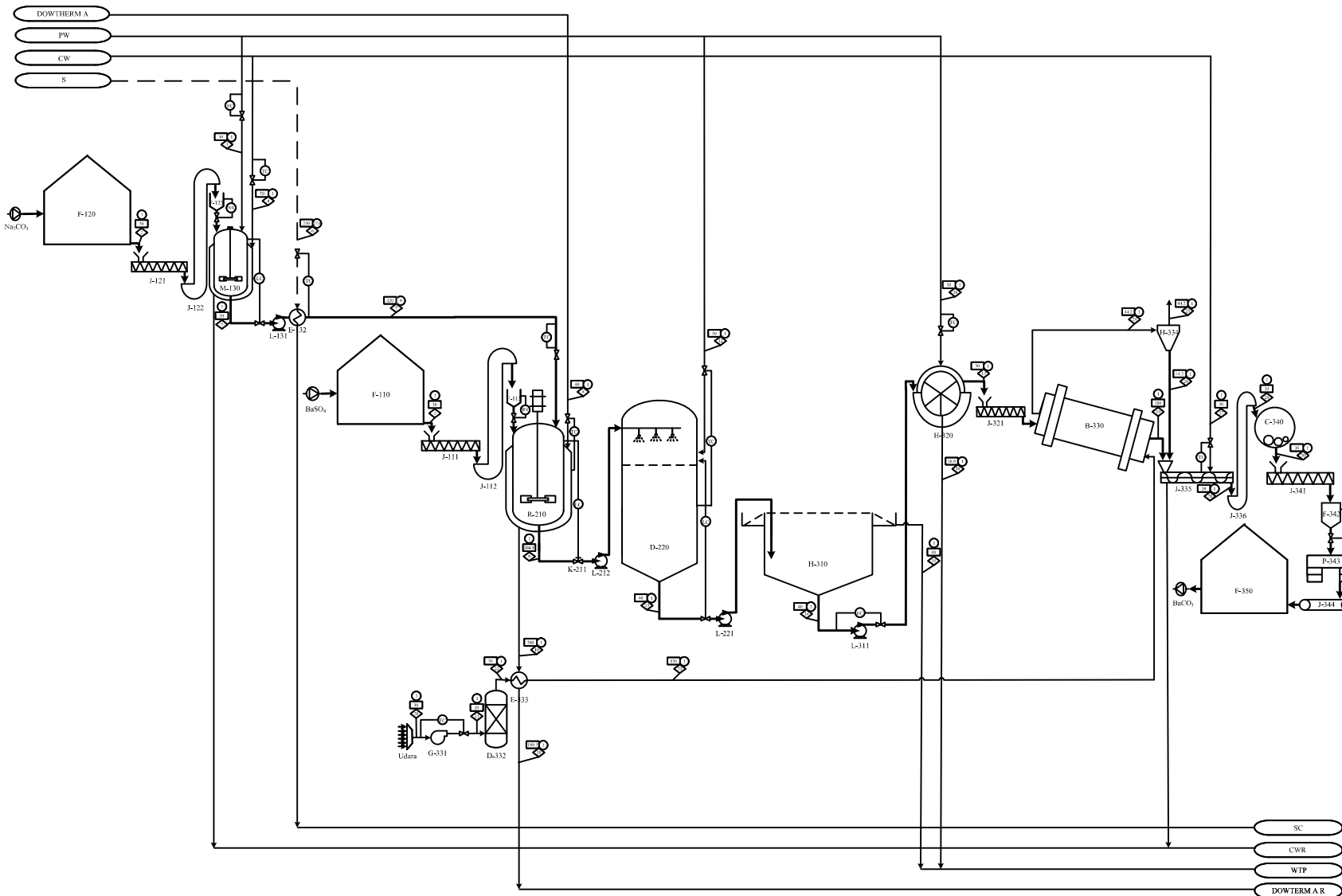


FLOWSHEET PABRIK BARIUM KARBONAT DARI BARIUM SULFAT DAN NATRIUM KARBONAT



KETERANGAN :	
	Temperatur ; °C
	Aliran Massa ; kg/jam
	Tekanan ; atm
	Steam : 239°C ; 32.5 atm
	Steam Condensate
	Cooling Water
	Cooling Water Return
	Process Water
	Waste Treatment Plant
	Dowtherm A
	Dowtherm A Return

33.	F-350	Gudang Penyimpanan
32.	J-344	Roller Conveyor
31.	P-343	Packer
30.	F-342	Silo Produk Barium Karbonat
29.	J-341	Screw Conveyor-4
28.	C-340	Ball Mill
27.	J-336	Bucket Elevator-3
26.	J-335	Cooling Screw Conveyor
25.	H-334	Cyclone
24.	E-333	Heater-2
23.	D-332	Molecular Sieve Air Dryer
22.	G-331	Blower Udara
21.	B-330	Rotary Dryer
20.	J-321	Screw Conveyor-3
19.	H-320	Rotary Drum Vacuum Filter
18.	L-311	Pompa-4
17.	H-310	Thickener
16.	L-221	Pompa-3
15.	D-220	Quench Tower
14.	L-212	Pompa-2
13.	K-211	Expansion Valve
12.	R-210	Reaktor
11.	E-132	Heater-1
10.	L-131	Pompa
9.	M-130	Mixer
8.	F-123	Hopper-2
7.	J-122	Bucket Elevator-2
6.	J-121	Screw Conveyor-2
5.	F-120	Gudang Penampung Natrium Karbonat
4.	F-113	Hopper-1
3.	J-112	Bucket Elevator-1
2.	J-111	Screw Conveyor-1
1.	F-110	Gudang Penampung Barium Sulfat
NO	KODE	NAMA ALAT

KOMPONEN	ALIRAN 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	30	
BaSO ₄	3728.1404								2.1763				2.1763	2.1763			2.1763		2.1546					0.0218	0.00022	0.0215		2.1761	2.1761	2.1761	
Fe	0.1124								0.1124				0.1124	0.1124			0.1124		0.1113					0.0011	0.000011	0.0011		0.1124	0.1124	0.1124	
Na ₂ CO ₃		3392.1277			3392.1277			3392.1277	1697.0539				1697.0539	33.9411	1663.1129			33.9411													
Na ₂ SO ₄		1.0258			1.0258			1.0258	2271.7850				2271.7850	45.4357	2226.3493			45.4357													
NaCl		23.9364			23.9364			23.9364	23.9364				23.9364	0.4787	23.4577			0.4787													
BaCO ₃									3150.2786	3150.2786			3150.2786	3150.2786			3150.2786		3118.7758						31.5028	0.3150	31.1878		3149.9636	3149.9636	3149.9636
H ₂ O	18.7344	1.0258	6717.0846	11851.2237	6718.1104		6718.1104		6736.8448			240048.168	246785.012	4935.7002	241849.312	730.8246	398.3879	5268.1369	3.9839				0.0089	0.0089	394.4040	394.4040		1895.5747	3.9839	3.9839	3.9839
Dowterm A								72647.8667			72647.8667																				
Steam					4043.2804																										
Udara																				13140.6426	13140.6426	13140.6337	13140.6337	13140.6337	13140.6337						
TOTAL	3746.9871	3418.1158	6717.0846	11851.2237	10135.2003	4043.2804	10135.2003	72647.8667	13882.1875	72647.8667	72647.8667	240048.168	253930.355	8168.1231	245762.232	730.8246	3550.9552	5347.9924	3125.0255	13140.6426	13140.6426	13140.6426	13140.6426	13566.5634	13535.3530	31.2104		3156.2360	3156.2360	3156.2360	

FLOWSHEET

PABRIK BARIUM KARBONAT DARI BARIUM SULFAT DAN NATRIUM KARBONAT KAPASITAS 25.000 TON/TAHUN

DISUSUN OLEH :

EKA AYU LINTANG AMBARWATI (22031010084)

DOSEN PEMBIMBING :

Dr. Ir. SINTHA SORAYA SANTI, M.T.

ITD :

PROGRAM STUDI TEKNIK KIMIA

FAKULTAS TEKNIK & SAINS

UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN"

JAWA TIMUR

2026

29,	L-323	Pompa Dowtherm A
28,	F-320	Tangki Dowtherm A
27,	E-322	Cooler
26,	L-321	Pompa Dowtherm A Return
25,	L-311	Pompa Cooling Tower
24,	P-310	Cooling Tower
23,	L-312	Pompa Bekas Air Pendingin
22,	L-221	Pompa Steam Condensate
21,	E-220	Boiler
20,	L-213	Pompa Air Umpan Boiler
19,	L-212	Pompa Air Proses
18,	F-211	Bak Air Demineralisasi
17,	H-210	Reverse Osmosis
16,	L-156	Pompa Air Pendingin
15,	F-155	Bak Air Pendingin
14,	L-154	Pompa Reverse Osmosis
13,	F-153	Tangki Penampung Air Sanitasi
12,	L-152	Pompa Air Sanitasi
11,	F-151	Bak Penampung Air Bersih-2
10,	H-150	Sand Filter
9,	L-143	Pompa Sand Filter
8,	F-142	Bak Penampung Air Bersih-1
7,	F-141	Bak Penampung Flok
6,	H-140	Clarifier-1
5,	L-131	Pompa Clarifier
4,	M-130	Tangki Flokulasi
3,	M-120	Tangki Koagulasi
2,	F-110	Bak Penyimpanan Air Laut
1,	L-111	Pompa Air Laut
NO	KODE	NAMA ALAT

DISUSUN OLEH :
EKA AYU LINTANG AMBARWATI (22031010084)

DOSEN PEMBIMBING :
Dr. Ir. SINTHA SORAYA SANTI, M.T.

FTD :



PROGRAM STUDI TEKNIK KIMIA
FAKULTAS TEKNIK & SAINS
UNIVERSITAS PEMBANGUNAN NASIONAL
"VETERAN"
JAWA TIMUR
2026