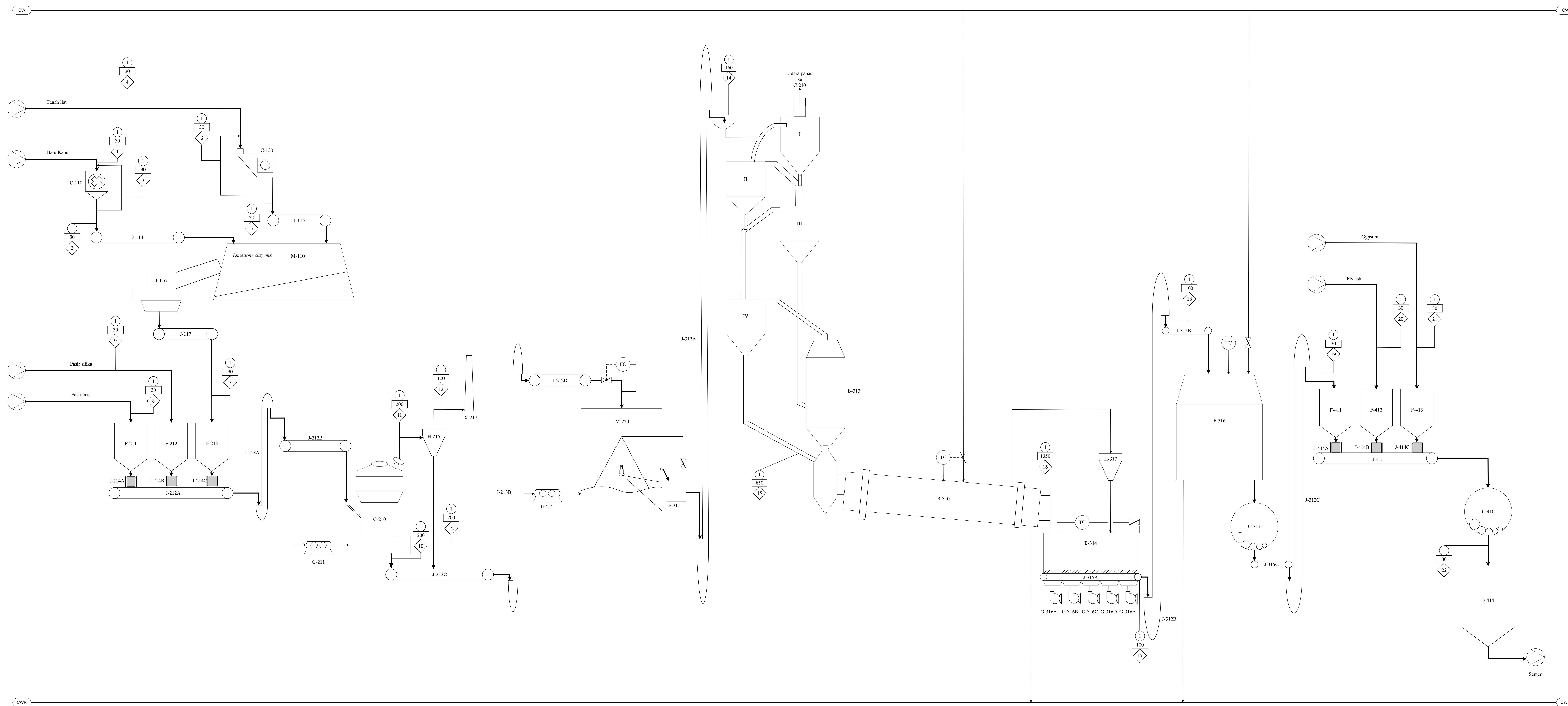


# FLOWSHEET PABRIK SEMEN PORTLAND POZZOLAN MENGGUNAKAN PROSES KERING



	Temperatur : °C
	Aliran Massa : kg/jam
	Tekanan : atm
	Cooling Water
	Cooling Water Return
	Temperatur Control
	Flow Control

39	F-414	Silo semen	1
38	C-410	Ball mill	1
37	J-415	Belt conveyor	1
36	J-414	Weight feeder	3
35	F-413	Gypsum bin	1
34	F-412	Fly ash bin	1
33	F-411	Clinker bin	1
32	C-317	Ball mill	1
31	F-316	Clinker Storage	1
30	G-316	Blower	5
29	J-315	Belt conveyor	3
28	B-314	Cooler	1
27	B-310	Kiln	1
26	B-313	Preheater	1
25	J-312	Bucket elevator	3
24	F-311	Kiln feed bin	1
23	M-220	Blending silo	1
22	G-212	Blower	1
21	X-217	Cerobong asap	1
20	H-215	Cyclone	1
19	G-211	Blower	1
18	C-210	Raw mill	1
17	J-214	Weight feeder	3
16	J-213	Bucket elevator	2
15	J-212	Belt conveyor	4
14	J-211	Belt conveyor	3
13	F-213	Bin limestone clay mix	1
12	F-212	Bin pasir silika	1
11	F-211	Bin pasir besi	1
10	J-117	Belt conveyor	1
9	J-116	Reclaimer	1
8	M-110	Limestone clay mixer	1
7	J-115	Belt conveyor	1
6	C-130	Roller Crusher	1
5	J-114	Belt conveyor	1
4	J-113	Belt conveyor	1
3	J-112	Bucket elevator	1
2	J-111	Belt conveyor	1
1	C-110	Jaw Crusher	1

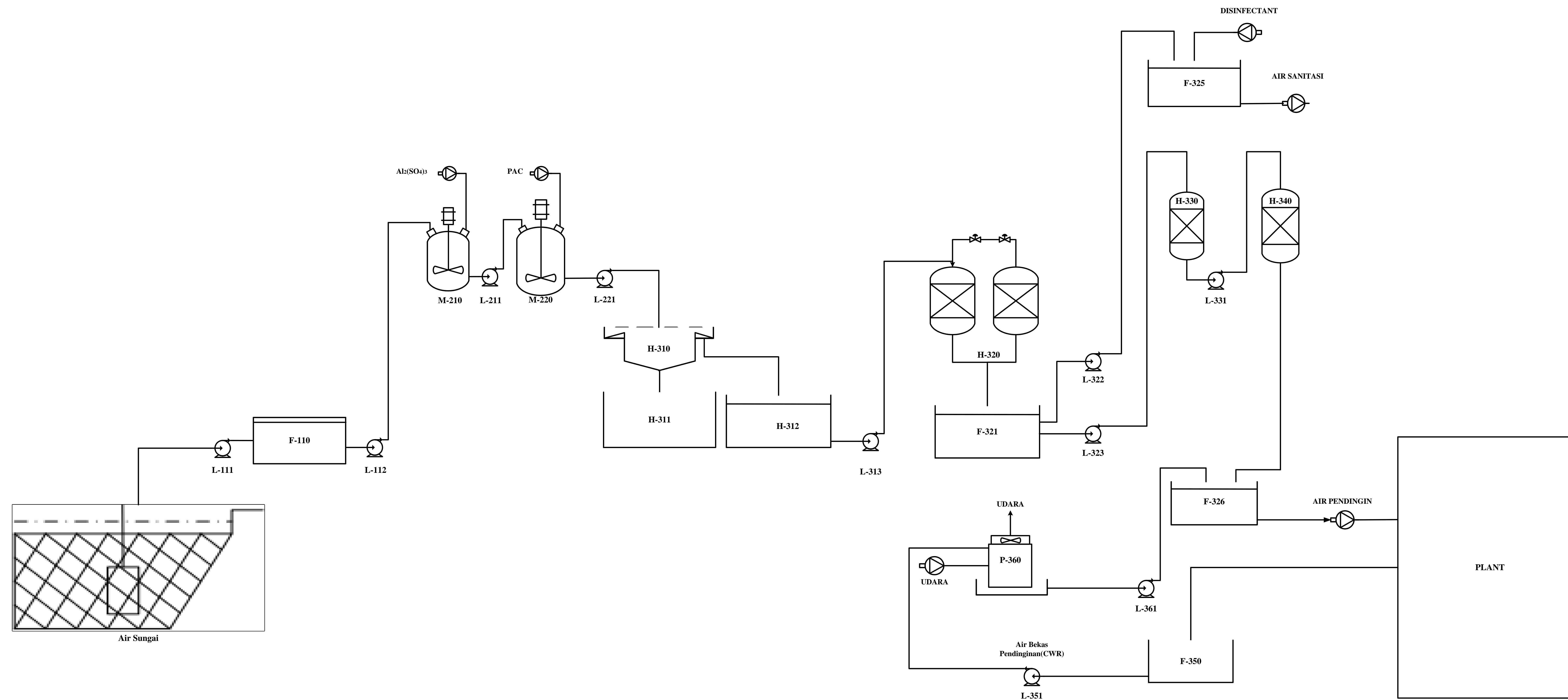
Komponen	Aliran Massa (Kg/Jam)																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
CaCO <sub>3</sub>	61625.63	61600.98	1232.51				61600.9792			60984.9694	616.0098	609.8497	6.1601	61594.8191	21558.1867								
SiO <sub>2</sub>	159.025	158.96	3.18	4719.2770	4717.3893	94.3855	4876.3506	67.3487	7590.1769	12408.5375	125.3388	124.0854	1.2534	12532.6229	12532.6229								
Al <sub>2</sub> O <sub>3</sub>	629.1857	628.93	12.58	1458.8812	1458.2976	29.1776	2087.2317	3.4997	22.2789	2091.8802	21.1301	20.9188	0.2113	2112.7990	2112.7990								
MgCO <sub>3</sub>	1113.175	1112.73	22.26				1112.7295			1101.6022	11.1273	11.0160	0.1113	1112.6182	389.4164								
Fe <sub>2</sub> O <sub>3</sub>	1313.684	1313.16	26.27	93.7249	93.6874	1.8745	1406.8464	736.1413	19.2059	2140.5716	21.6219	21.4057	0.2162	2161.9774	2161.9774								
H <sub>2</sub> O	4300.588	4298.87	86.01	1017.9134	1017.5062	20.3583	5316.3741	39.6922	22.8320	53.7890	5325.1093	53.2511	5271.858	107.0401	22518.1397	107.0401							
CaO				64.5319	64.5061	1.2906	64.5061	6.9141	16.1330	86.6776	0.8755	0.8668	0.0088	87.5444	415.5635								
MgO				69.9095	69.8816	1.3982	69.8816			69.1827	0.6988	0.6918	0.0070	69.8746	246.6957			601.7037	601.7037			601.7037	
K <sub>2</sub> O				246.6039	246.5053	4.9321	246.5053		0.2151	244.2532	2.4672	2.4425	0.0247	246.6957	11.5178			246.6957	246.6957			246.6957	
Na <sub>2</sub> O				11.5235	11.5189	0.2305	11.5189			11.4037	0.1152	0.1140	0.0012	11.5178	11.5224			11.5178	11.5178			11.5178	
TiO <sub>2</sub>									11.5235	11.4083	0.1152	0.1141	0.0012	11.5224	61958.4414			11.5224	11.5224			11.5224	
CO <sub>2</sub>																17983.5500	9683.4500						
C <sub>3</sub> S																		28281.6969	28281.697				28281.697
C <sub>2</sub> S																		14605.8418	14605.842				14605.842
C <sub>3</sub> AL																		1941.6967	1941.697				1941.697
C <sub>4</sub> AF																		6574.3165	6574.316				6574.316
Gypsum																				1568.25			1568.250
Fly ash																						5227.5	5227.499
Total	69141.29	69113.63	1382.826	7682.365	7679.292	153.647	76792.923	853.596	7682.365	79204.275	6124.609	844.756	5279.85	80049.031	123916.88	18090.59	9683.45	52274.991	52274.99136	1568.25	5227.5	59070.74	

**Keterangan**  
 Flowsheet Pra Rencana Pabrik Semen Portland dengan Proses Kering


Nama: Wahyu Firdansyah S.P  
 Dosen Pembimbing: Prof. Dr. Ir. Ni Ketut Sari, MT

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 2023

**FLWSHEET UNIT PENGOLAHAN AIR PABRIK SEMEN PORTLAND POZZOLAN MENGGUNAKAN PROSES KERING**



25	L-361	Pompa 11	1
24	F-350	Tangki bekas air pendingin	1
23	L-351	Pompa 10	1
22	P-360	Cooling Tower	1
21	F-326	Bak penampung air pendingin	1
20	L-324	Pompa 9	1
19	H-340	Tangki anion exchanger	1
18	L-331	Pompa 8	1
17	H-330	Tangki kation exchanger	1
16	L-323	Pompa 7	1
15	F-325	Bak Penampung air sanitasi	1
14	L-322	Pompa 6	1
13	F-321	Bak penampung air bersih	1
12	H-320	Sand filter	1
11	L-313	Pompa 5	1
10	H-312	Bak Penampung air jernih	1
9	H-311	Bak penampung Flok	1
8	H-310	Tangki Clarifier	1
7	L-221	Pompa 4	1
6	M-220	Tangki Flokulasi	1
5	L-211	Pompa 3	1
4	M-210	Tangki Koagulasi	1
3	L-112	Pompa 2	1
2	F-110	Bak penampung air sungai	1
1	L-111	Pompa 1	1
	<b>No Kode Alat</b>	<b>Nama Alat</b>	<b>Jumlah</b>

Keterangan		
<b>Flowsheet Pengolahan Air Pabrik Semen Portland Pozzolan Menggunakan Proses Kering</b>		
Nama	Wahyu Firdansyah S.P	
Dosen Pembimbing	Prof. Dr. Ir. Ni Ketut Sari, MT	
	 Program Studi Teknik Kimia Fakultas Teknik UPN "Veteran" Jawa Timur 2023	

**STRUKTUR ORGANISASI**  
**PABRIK SEMEN PORTLAND POZZOLAN MENGGUNAKAN PROSES KERING KAPASITAS 450.000 TON/TAHUN**

