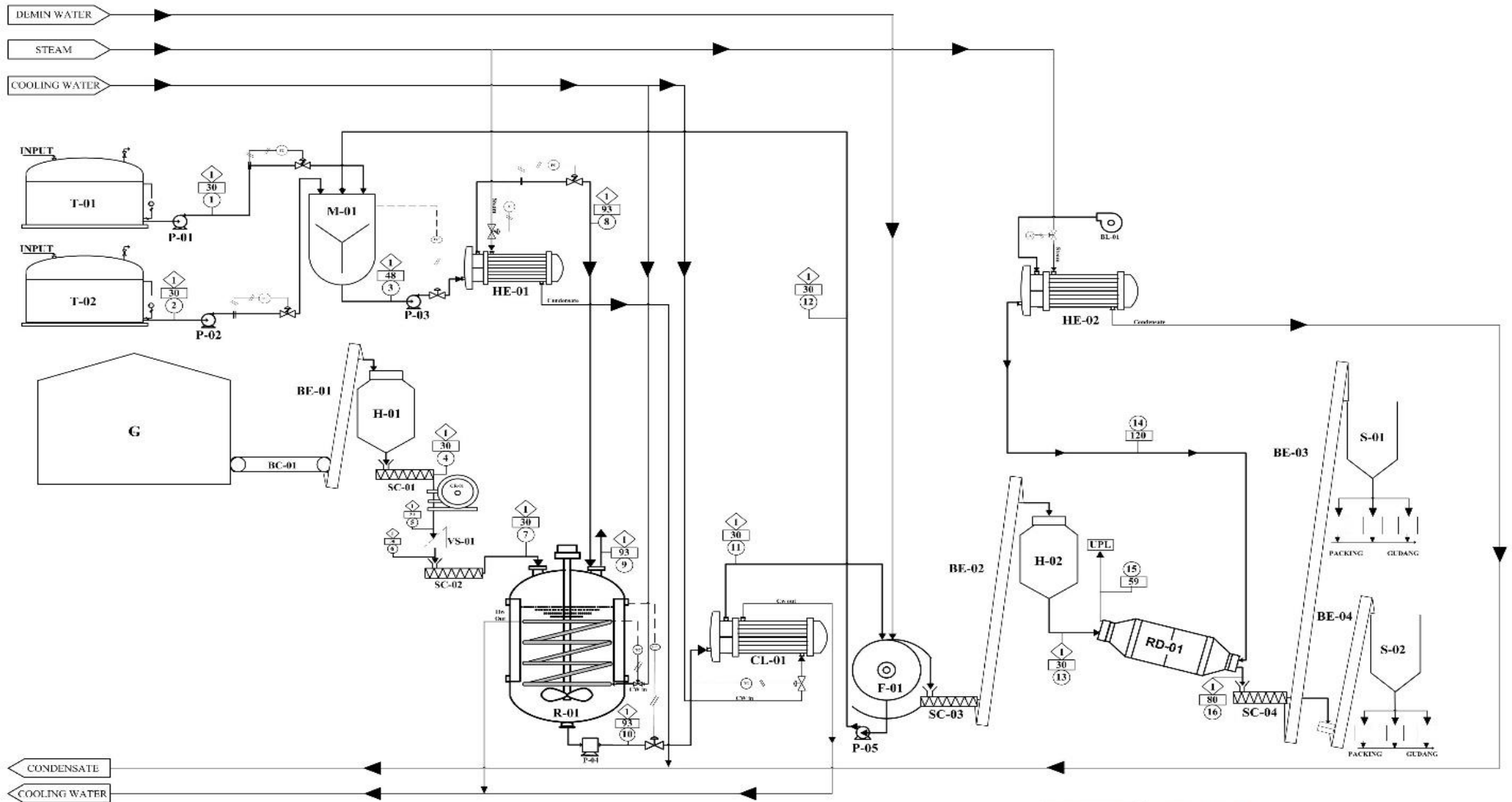


PROCESS ENGINEERING FLOW DIAGRAM

PRA RANCANGAN PABRIK KIMIA GIPSUM (KALSIUM SULFAT DIHIDRAT) DARI ASAM SULFAT DAN BATUAN KAPUR DENGAN KAPASITAS 500.000 TON/TAHUN



Komponen	Arus (kg/jam)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
H ₂ SO ₄	3384.487		38016.174					38016.174		5193.397	5193.397	4154.719	1038.679		383.484	155.196
H ₂ O	89.096	8170.061	58016.174	111.639	114.049	114.049	114.049	38016.174		3710.150	3210.150	35155.096	4956.516		5461.012	996.858
CO ₂									14236.757							
CaCO ₃			37214.033	37214.033	37214.033	37214.033	37214.033			37214.033	37214.033		37214.033		37214.033	37214.033
SiO ₂			136.858	136.858	136.858	136.858	136.858			136.858	136.858		136.858		136.858	136.858
MgCl ₂			361.154	361.154	361.154	361.154	361.154			361.154	361.154		361.154		361.154	361.154
Al ₂ O ₃			61.627	61.627	61.627	61.627	61.627			61.627	61.627		61.627		61.627	61.627
CaSO ₄			30.413	30.413	30.413	30.413	30.413			30.413	30.413		30.413		30.413	30.413
Fe ₂ O ₃			95.610	95.610	95.610	95.610	95.610			95.610	95.610		95.610		95.610	95.610
C ₂ H ₅ OH										87607.323	87607.323		87607.323		87607.323	87607.323
Udara Panas																
Udara Dingin																
Total	34552.507	8170.094	76052.349	38016.174	38016.174	38016.174	38016.174	76052.349	14236.757	9311.765	90311.766	33590.748	69475.809	259274.498	261733.540	271080.005

Keterangan Simbol
Tanah
Mixer
Dryer
Storage
Transfer
Vertical Separator
Reaktor
Cooler
Rotary Drum Vacuum Filter
Rotary Dryer
Silo
Belt Conveyor
Bucket Elevator
Screw Conveyor
Pompa
Blower

KETERANGAN INSTRUMEN
FC : Flow Controller
LC : Level Controller
TC : Temperature Controller

KETERANGAN SIMBOL
◇ : Tekanan, etc.
○ : Niveau Atas
○ : Suhu, °C
◇ : Control Valve
◇ : Area Signal Pneumatic
◇ : Area Signal Listrik
◇ : Area Area
◇ : Area Cooling Water
◇ : Packed Water
◇ : Condensate

FAKULTAS TEKNOLOGI INDUSTRI
UNIVERSITAS ISLAM INDONESIA
YOGYAKARTA

PROCESS ENGINEERING FLOW DIAGRAM
PABRIK GIPSUM (KALSIUM SULFAT DIHIDRAT)
DARI ASAM SULFAT DAN BATUAN KAPUR
DENGAN KAPASITAS 500.000 TON/TAHUN

Dibuatkan Oleh:
1. Sufach Nurli (14521174)
2. Divya Aishwariya (14521177)

Dosen Pembimbing : Prof. Dr. Zulaini Sulfatin, M. Sc.