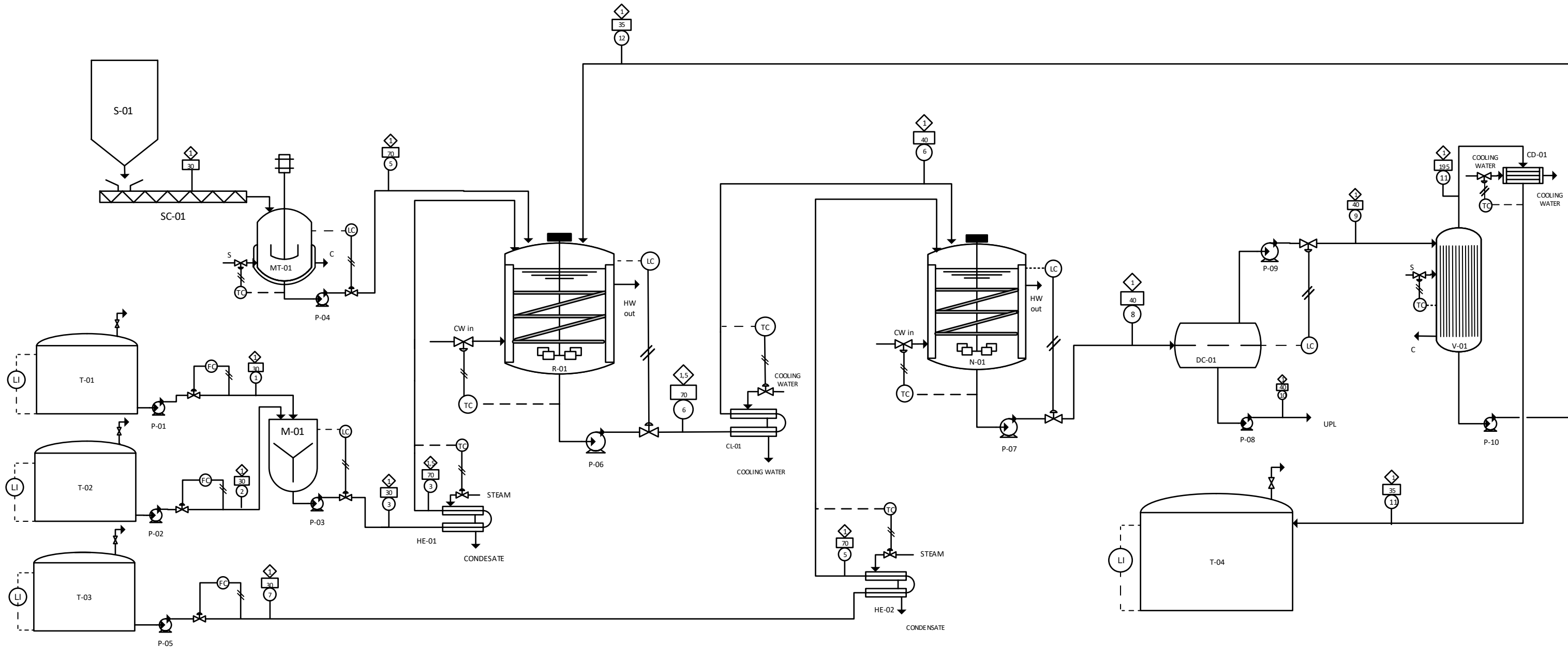


PROCESS ENGINEERING FLOW DIAGRAM
PRA RANCANGAN PABRIK BIODIESEL DARI DISTILAT ASAM LEMAK MINYAK SAWIT DAN METHANOL DENGAN
KAPASITAS PRODUKSI 20.000 TON/TAHUN



Komponen	Arus 1	Arus 2	Arus 3	Arus 4	Arus 5	Arus 6	Arus 7	Arus 8	Arus 9	Arus 10	Arus 11	Arus 12
	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam	Kg/Jam
C16H32O2				2578,5602	2578,5602	257,8560		257,8560	255,2775	2,5786	102,1110	153,1665
CH3OH	322,3200		322,3200			322,3200		32,2320		32,2320		
C17H34O2						2447,6177		2447,6177	2423,1415	24,4762	2423,1415	
H2O	0,4842	0,5262	1,0104	286,5067	286,5067	450,6917	3,2744	463,4383		463,4383		
H2SO4		25,7856	25,7856									
KOH							29,4693					
K2SO4								45,7826		45,7826		
Total	322,8042	26,3118	349,1161	2865,0669	2865,0669	3478,4854	32,7436	3246,9266	2678,4190	568,5076	2525,2525	153,1665

KETERANGAN ALAT
 MT : Melter
 M : Mixer
 R : Reaktor
 N : Netralizer
 D : Dekanter
 WT : Washing Tower
 EV : Evaporator
 HE : Heat Exchanger
 CL : Cooler
 SC : Screw Conveyor
 TK : Tangki Penyimpanan
 S : Silo
 P : Pompa
 Ev : Expansion Valve

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

KETERANGAN SIMBOL

- : Nomor Arus
- ◇ : Tekanan, atm
- : Suhu, °C
- ⊗ : Control Valve
- : Arus Sinyal Pneumatic
- ⋯ : Arus Sinyal Listrik
- : Arus Proses
- : Arus Cooling Water, Process Water, Condensate
- ⊥ : Vent

UNIVERSITAS ISLAM INDONESIA

JURUSAN TEKNIK KIMIA
FAKULTAS TEKNOLOGI INDUSTRI
UNIVERSITAS ISLAM INDONESIA
YOGYAKARTA

PROCESS ENGINEERING FLOW DIAGRAM
PABRIK BIODIESEL DARI DISTILAT ASAM LEMAK MINYAK SAWIT DAN METANOL
DENGAN KAPASITAS 20.000 TON/TAHUN

Dikerjakan Oleh :
 1. Nanda Nurul Fikri (14521085)
 2. Imalia Septi Andani (14521088)

Dosen Pembimbing : Dr. Arif Hidayat, S.T.,M.T