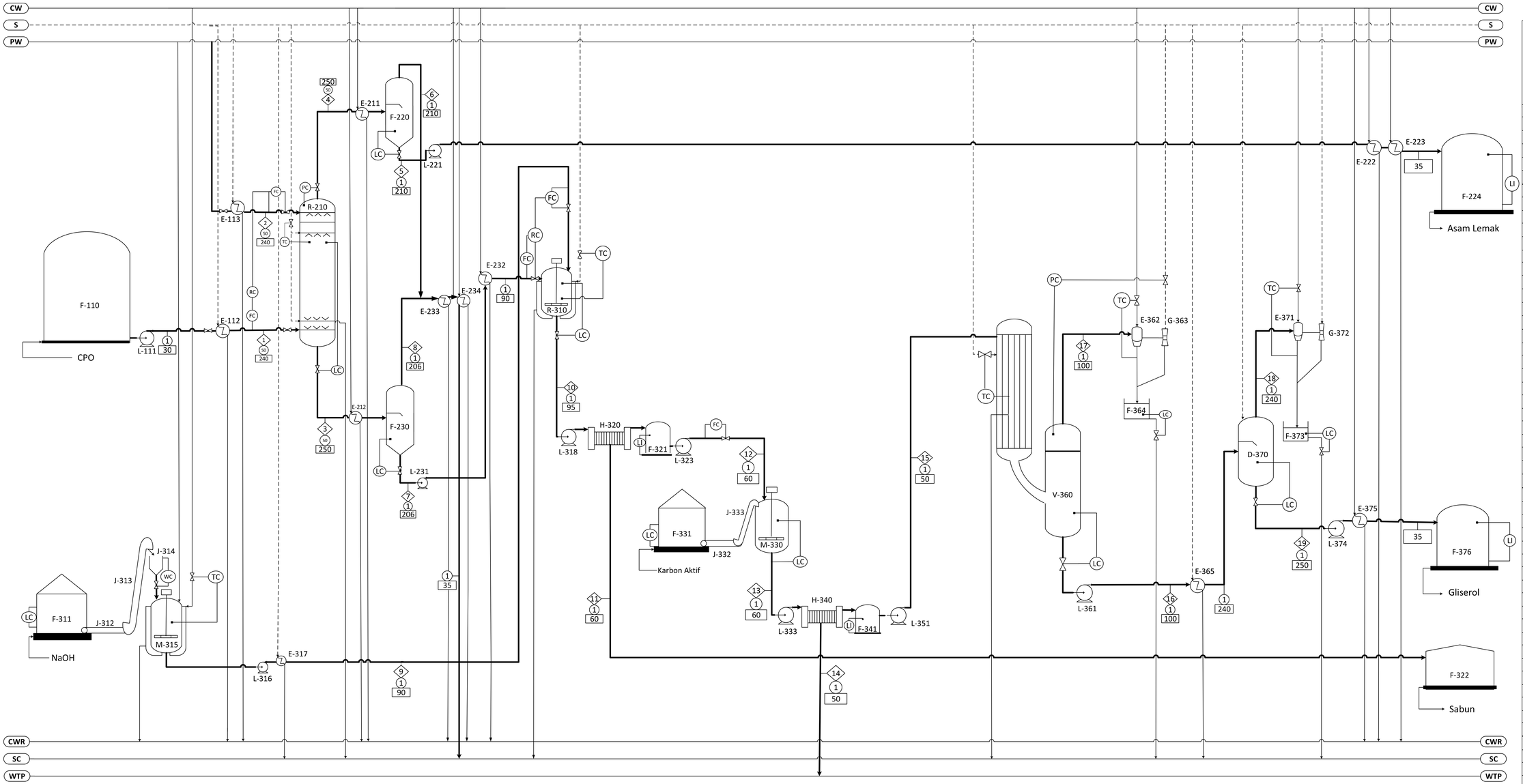
PABRIK GLISEROL DARI CRUDE PALM OIL (CPO) DENGAN PROSES HIDROLISIS KONTINU



	Aliran Massa	: (kg / jam)
	Tekanan	: (Atm)
	Temperatur	: (°C)

CW : Cooling Water — CWR : Cooling Water Return
S : Steam — SC : Steam Condensate
PW : Process Water — WTP : Waste Treatment Plant

NO	KODE	NAMA ALAT
51	G-372	TANGKI PENYIMPANAN GLISEROL
50	E-375	COOLER GLISEROL
49	L-374	POMPA GLISEROL
48	F-373	HOT WELL-3
47	G-372	STEAM EJECTOR-2
46	E-371	BAROMETRIC CONDENSOR-2
45	D-370	TANGKI DEODORIZER
44	E-361	HEATER DEODORIZER
43	F-364	HOT WELL-1
42	G-363	STEAM EJECTOR-1
41	E-362	BAROMETRIC CONDENSOR-1
40	L-361	POMPA DEODORIZER
39	V-360	FALLING FILM EVAPORATOR
38	L-351	POMPA FALLING FILM EVAPORATOR
37	F-341	TANGKI PENYIMPANAN SEMENTARA-2
36	H-340	FILTER PRESS-2
35	L-334	POMPA FILTER PRESS-2
34	J-333	BUCKET ELEVATOR 2
33	J-332	BELT CONVEYOR KARBON AKTIF
32	F-331	STORAGE KARBON AKTIF
31	M-330	TANGKI BLEACHING
30	L-323	POMPA TANGKI BLEACHING
29	F-322	STORAGE SABUN
28	F-321	TANGKI PENYIMPANAN SEMENTARA-1
27	H-320	FILTER PRESS-1
26	L-318	POMPA FILTER PRESS-1
25	E-317	HEATER NaOH
24	L-316	POMPA NaOH
23	M-315	TANGKI PELARUT NaOH
22	J-314	HOPPER NaOH
21	J-313	BUCKET ELEVATOR 1
20	J-312	BELT CONVEYOR NaOH
19	F-311	STORAGE NaOH
18	R-310	TANGKI NETRALISASI
17	E-234	CONDENSOR FLASH TANK
16	E-233	COOLER FLASH TANK
15	E-232	COOLER GLISEROL-1
14	L-231	POMPA TANGKI NETRALISASI
13	F-230	FLASH TANK GLISEROL
12	F-224	TANGKI ASAM LEMAK
11	E-223	COOLER ASAM LEMAK-2
10	E-222	COOLER ASAM LEMAK-1
09	L-221	POMPA TANGKI ASAM LEMAK
08	F-220	FLASH TANK ASAM LEMAK
07	E-212	COOLER PRODUK BAWAH REAKTOR
06	E-211	COOLER PRODUK ATAS REAKTOR
05	R-210	REAKTOR FAT SPLITTING
04	E-113	HEATER AIR PROSES
03	E-112	HEATER CPO
02	L-111	POMPA TANGKI PENYIMPANAN CPO
01	F-110	TANGKI PENYIMPANAN CPO

FLOWSHEET
PABRIK GLISEROL DARI CRUDE PALM OIL (CPO) DENGAN PROSES HIDROLISIS KONTINU

DESIGN OLEH : Selvia
NPM : 18031010197

DOSEN PEMBIMBING :
IR. SUPRIHATIN, MT

JURUSAN TEKNIK KIMIA
FAKULTAS TEKNIK
UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" JAWA TIMUR
2022

ALIRAN MASSA (kg/jam)

KOMPONEN	1	2	3	4	5	6	7	8	9	10
Trigliserida	62576.1743		1877.2852				1877.2852			
Asam Lemak	2617.7023			60589.8522	54530.8670	6058.9852				
Air	131	31288	15427.5196	12117.9704	1211.7970	10906.1734	925.6512	14501.8685	265.9984	1191.6496
Karoten	118		117.7966				117.7966			117.7966
Gliserol			6600.2216				6204.2083	396.0133		6408.339
NaOH									265.9984	0.0013
Sabun										1939.1517
Karbon Aktif										
Jumlah	65442.56	31288	24022.8231	72707.8226	55742.6640	16965.1586	9124.9413	14897.8818	531.9967	8691.244

KOMPONEN	11	12	13	14	15	16	17	18	19
Trigliserida									
Asam Lemak									
Air	14.9705	1176.679	1176.679	2.7336	1173.945	57.9667	1115.979	26.0822	31.8845
Karoten	1.4799	116.3167	5.8158	0.0135	5.8023	5.8023		5.8023	
Gliserol	80.5072	6327.832	6327.8317	14.7004	6313.131	6313.131			6313.131
NaOH	0.000017	0.001313	0.001313	0.000003	0.001310		0.001310		
Sabun	1939.1517								
Karbon Aktif			348.9502	348.9502					
Jumlah	2036.109	7620.829	7969.7790	366.3977	7492.8804	7014.590	478.2900	637.6900	6376.900