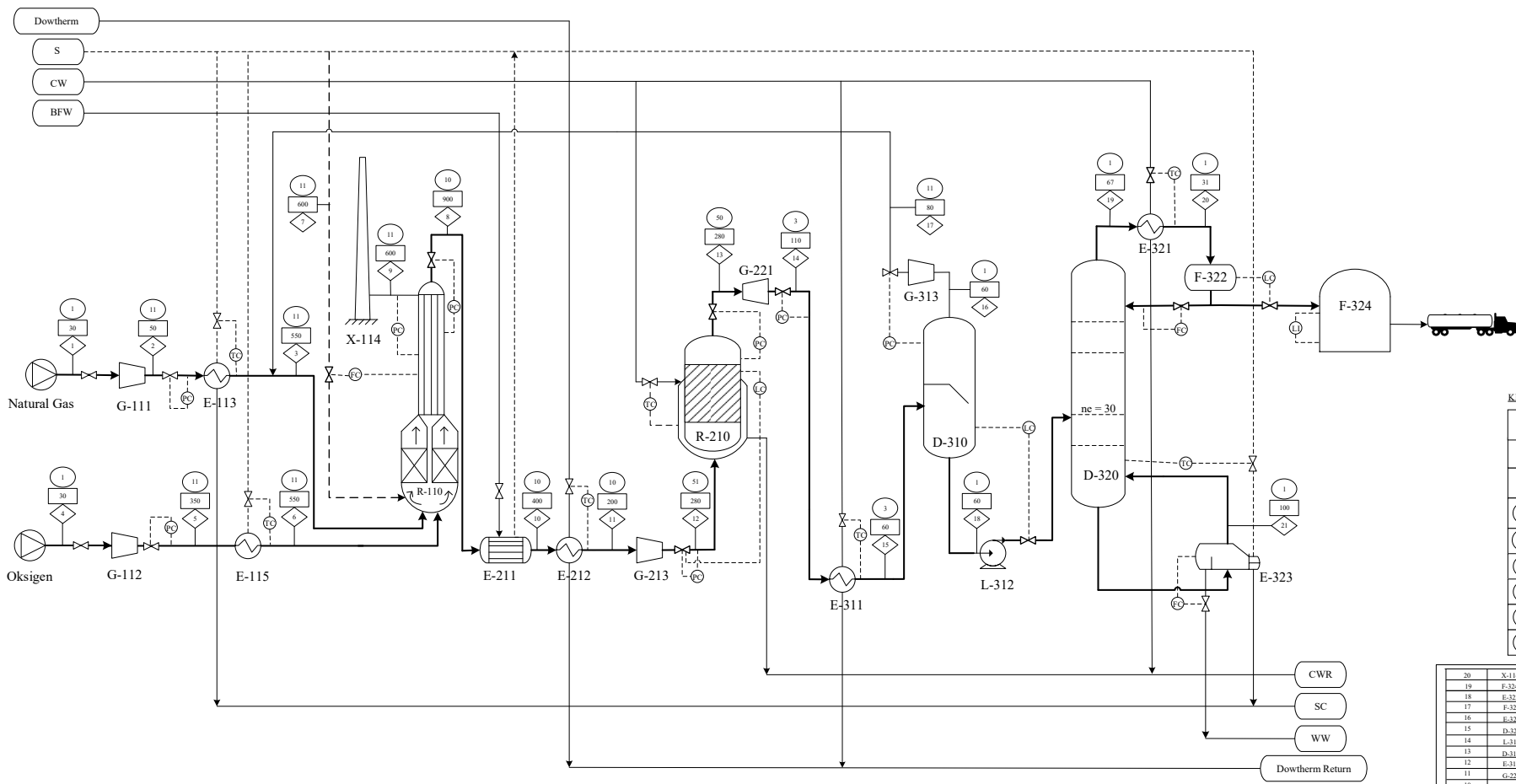


FLOWSHEET PENGEMBANGAN PABRIK METHANOL DARI NATURAL GAS DAN OKSIGEN MENGUNAKAN PROSES HALDOR TOPSOE DENGAN KAPASITAS 70.000 TON/TAHUN



KETERANGAN:

	Temperatur ; °C
	Tekanan ; atm
	Aliran Massa
	Boiling Feed Water
	Steam
	Steam Condensate
	Cooling Water
	Cooling Water Return
	Waste Water

20	X-114	Vent Stack
19	F-324	Tanque Penyimpanan Methanol
18	E-323	Reboiler
17	F-322	Akumulasi
16	E-321	Kondensator
15	D-320	Distilasi
14	L-312	Pompa 1
13	D-310	Flash Drum
12	E-311	Kondensator Methanol
11	G-221	Expander
10	R-210	Reaktor Methanol
9	G-213	Kompresor Syngas
8	E-212	Cooler
7	E-211	Waste Heat Boiler
6	R-110	Reformer
5	E-115	Heater Oksigen
4	G-113	Kompresor Flash Drum
3	E-113	Heater Natural Gas 1
2	G-112	Kompresor Oksigen
1	G-111	Kompresor Natural Gas

Senyawa	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	
CH ₄ (g)	4.334.2778	4.334.2778	4.334.2778					8.6772		8.6772	8.6772	8.6772	8.6772	8.6772	8.6772	8.6772	8.6772					
C ₂ H ₆ (g)	33.1266	33.1266	33.1266					0.6692		0.6692	0.6692	0.6692	0.6692	0.6692	0.6692	0.6692	0.6692					
C ₃ H ₈ (g)	2.2342	2.2342	2.2342					1.2798		1.2798	1.2798	1.2798	1.2798	1.2798	1.2798	1.2798	1.2798					
n-C ₄ H ₁₀ (g)	84.3129	84.3129	84.3129					0.0758		0.0758	0.0758	0.0758	0.0758	0.0758	0.0758	0.0758	0.0758					
i-C ₄ H ₁₀ (g)	10.6227	10.6227	10.6227					0.2146		0.2146	0.2146	0.2146	0.2146	0.2146	0.2146	0.2146	0.2146					
CO ₂ (g)	14.1398	14.1398	14.1398					7.883.8877		7.883.8877	7.883.8877	7.883.8877	166.1809	166.1809	166.1809	166.1809	166.1809					
CO(g)								21.9997		21.9997	21.9997	21.9997	0.2860	0.2860	0.2860	0.2860	0.2860					
O ₂ (g)				1.288.5691	1.288.5691	1.288.5691			145.7296				0.0000	0.0000	0.0000	0.0000	0.0000					
H ₂ O(g)								1.900.2549		1.900.2549	1.900.2549	1.900.2549	794.4445	794.4445	794.4445	794.4445	794.4445					
H ₂ O(l)								989.1132		989.1132	989.1132	989.1132	998.1113	998.1113	998.1113	998.1113	998.1113		1.0080	1.0080	1.006.9643	
CH ₃ OH(g)													8836.2328	8.836.2328	8.836.2328							
H ₂ O(l)																			8.836.2328	8.817.5246	8.817.5246	8.8472
CH ₃ OH(l)																			998.1113			
TOTAL	4.478.7140	4.478.7140	4.478.7140	1.288.5691	1.288.5691	1.288.5691	4.559.9690	10.806.1721	209.0723	10.806.1721	10.806.1721	10.806.1721	10.806.1721	10.806.1721	10.806.1721	971.8280	971.8280	9.834.3441	8.818.5326	8.818.5326	1.015.8115	

Dosen Pembimbing I : Dr. Ir. Sinda Soraya Santi, MT
 Dosen Pembimbing II : Ika Nawang Puspitanawati, S.T., M.T.

Mengestahi :
 1. _____
 2. _____

Digambar Oleh : Bolinda Lulista (22031010145)

FLOWSHEET
 PRA RANCANGAN PABRIK METHANOL DARI GAS ALAM DAN OKSIGEN DENGAN PROSES HALDOR TOPSOE

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