

E1 Design

	Shell Side (IP Steam)		Tube Side (Amine Acid Gas)	
	In	Out	In	Out
Flow rate (kg/hr)	2976	2976		
Flow rate (Sm3/hr)			18822	18822
Temperature (oC)	253	253	43	220
Density (kg/m3)			2.24	1.37
Viscosity (mN.s/m2)			0.013	0.021
Specific heat (kJ/kg oC)			1.039	1.121
Latent heat (kJ/kg)	1698.8			
Inlet Pressure (kPag)	4100		78.2	
Pressure Drop (kPa)	100		3.5	
Heat Duty (W)	1404000			
MTD (oC)	95.1			
U (W/m2oC)	92			
Area(m2)	161			

E1 Current Operating Condition

	Shell Side (IP Steam)		Tube Side (Amine Acid Gas)	
	In	Out	In	Out
Flow rate (kg/hr)	2700	2700		
Flow rate (Sm3/hr)			17358	17358
Temperature (oC)	256	256	45	227
Density (kg/m3)				
Viscosity (mN.s/m2)				
Specific heat (kJ/kg oC)				
Latent heat (kJ/kg)				
Inlet Pressure (kPa)	4317		93	
Pressure Drop (kPa)				
Heat Duty (W)				
MTD (oC)				
U (W/m2oC)				
Area(m2)	161			

E2 Design

	Shell Side (Combustion Air)		Tube Side (IP Steam)	
	In	Out	In	Out
Flow rate (kg/hr)			4084	4084
Flow rate (Sm3/hr)	55259	55259		
Temperature (oC)	122	220	253	253
Density (kg/m3)	1.532	1.203		
Viscosity (mN.s/m2)	0.023	0.026		
Specific heat (kJ/kg oC)	1.049	1.07		
Latent heat (kJ/kg)			1698.8	
Inlet Pressure (kPag)	83		4100	
Pressure Drop (kPa)	15		100	
Heat Duty (W)	1927000			
MTD (oC)				
U (W/m2oC)				
Area(m2)	266			

E2 Current Operating Condition

	Shell Side (Combustion Air)		Tube Side (IP Steam)	
	In	Out	In	Out
Flow rate (kg/hr)			3830	3830
Flow rate (Sm3/hr)	45153	45153		
Temperature (oC)	118	226	255	255
Density (kg/m3)				
Viscosity (mN.s/m2)				
Specific heat (kJ/kg oC)				
Latent heat (kJ/kg)				
Inlet Pressure (kPa)			4317	
Pressure Drop (kPa)				
Heat Duty (W)				
MTD (oC)				
U (W/m2oC)				
Area(m2)	266			