

Details

Title:MySimulation\_46

Comments:

Object:  Methanol\_rich\_stream

Type:    Material Stream

Property	Value	
Temperature	25	C
Pressure	2	bar
Mass Flow	0.812126	kg/s
Molar Flow	100	kmol/h
Volumetric Flow	0.000986644	m3/s
Mixture Molar Fraction		
Methanol	0.8	
Water	0.2	
Density (Mixture)	823.12	kg/m3
Molecular Weight (Mixture)	29.2365	kg/kmol
Specific Enthalpy (Mixture)	-1435.76	kJ/kg
Specific Entropy (Mixture)	-4.01243	kJ/[kg.K]
Molar Enthalpy (Mixture)	-41976.6	kJ/kmol
Molar Entropy (Mixture)	-117.31	kJ/[kmol.K]
Thermal Conductivity (Mixture)	0.225823	W/[m.K]
Molar Fraction (Vapor)		
Methanol	0.932655	
Water	0.0673448	
Molar Fraction (Overall Liquid)		
Methanol	0.8	
Water	0.2	
Molar Fraction (Liquid 1)		
Methanol	0.8	
Water	0.2	
Molar Fraction (Liquid 2)		
Methanol	0	
Water	0	
Molar Fraction (Aqueous)		
Methanol	0	
Water	0	
Molar Fraction (Solid)		
Methanol	0	
Water	0	

Object:  Water\_rich\_stream

Type:    Material Stream

Property	Value	
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# Simulation Report

DWSIM v.9.0

## Details

Title: MySimulation\_46

Comments:

Temperature	40	C
Pressure	1.5	bar
Mass Flow	0.269694	kg/s
Molar Flow	50	kmol/h
Volumetric Flow	0.000279616	m3/s
Mixture Molar Fraction		
Methanol	0.1	
Water	0.9	
Density (Mixture)	964.513	kg/m3
Molecular Weight (Mixture)	19.4179	kg/kmol
Specific Enthalpy (Mixture)	-2316.67	kJ/kg
Specific Entropy (Mixture)	-6.19202	kJ/[kg.K]
Molar Enthalpy (Mixture)	-44985	kJ/kmol
Molar Entropy (Mixture)	-120.236	kJ/[kmol.K]
Thermal Conductivity (Mixture)	0.513953	W/[m.K]
Molar Fraction (Vapor)		
Methanol	0.509888	
Water	0.490112	
Molar Fraction (Overall Liquid)		
Methanol	0.1	
Water	0.9	
Molar Fraction (Liquid 1)		
Methanol	0.1	
Water	0.9	
Molar Fraction (Liquid 2)		
Methanol	0	
Water	0	
Molar Fraction (Aqueous)		
Methanol	0	
Water	0	
Molar Fraction (Solid)		
Methanol	0	
Water	0	

Object: Outlet\_stream

Type: Material Stream

Temperature	27.0747	C
Pressure	1.5	bar
Mass Flow	1.08182	kg/s
Molar Flow	150	kmol/h
Volumetric Flow	0.00124983	m3/s
Mixture Molar Fraction		
Methanol	0.566667	
Water	0.433333	
Density (Mixture)	865.574	kg/m3
Molecular Weight (Mixture)	25.9637	kg/kmol
Specific Enthalpy (Mixture)	-1655.37	kJ/kg
Specific Entropy (Mixture)	-4.50381	kJ/[kg.K]
Molar Enthalpy (Mixture)	-42979.4	kJ/kmol
Molar Entropy (Mixture)	-116.935	kJ/[kmol.K]
Thermal Conductivity (Mixture)	0.270383	W/[m.K]
Molar Fraction (Vapor)		
Methanol	0.850736	
Water	0.149264	
Molar Fraction (Overall Liquid)		
Methanol	0.566667	
Water	0.433333	
Molar Fraction (Liquid 1)		
Methanol	0.566667	
Water	0.433333	
Molar Fraction (Liquid 2)		
Methanol	0	
Water	0	
Molar Fraction (Aqueous)		
Methanol	0	
Water	0	
Molar Fraction (Solid)		
Methanol	0	
Water	0	