Plate Heat Exchanger

Technical Specification

Customer : DDCE
Model : **M6-MFG**
Project: : DDCE Pt2
Item : **1021-W01 R1**

Date: 7/6/2009

		Hot Side	Cold side
Fluid		40.0% NaOH	Water
Density	lb/ft³	87.54	61.98
Specific heat capacity	Btu/lb,°F	0.81	1.00
Thermal conductivity	Btu/ft,h,°F	0.403	0.360
Viscosity inlet	cP	5.89	0.841
Viscosity outlet	cP	6.83	0.654
Mass flow rate	lb/h	38580	11230
Inlet temperature	°F	140.0	82.0
Outlet temperature	°F	132.1	104.0
Pressure drop	psi	17.6	3.08
Heat Exchanged	kBtu/h	246.7	
L.M.T.D.	°F	42.7	
O.H.T.C clean conditions	Btu/ft²,h,°F	1084	
O.H.T.C service	Btu/ft²,h,°F	478.7	
Heat transfer area	ft²	12.1	
Relative directions of fluids		Countercurrent	
Number of plates		10	
effective plates		8	
Number of passes		1	1
Extension capacity		12	
Plate material / thickness		ALLOY 316 / 0.50 mm	
Sealing material		EPDMFF CLIP-ON	EPDMFF CLIP-
ON			
Connection material		Stainless steel	Stainless steel
Connection diameter		See drawing	See drawing
Nozzle orientation		S4 -> S3	S1 <- S2
Pressure vessel code		ASME	
Flange rating		ASME 150	
Design pressure	psi	150.0	150.0
Test pressure	psi	195.0	195.0
Design temperature	°F	302.0	302.0
Overall length x width x height	in	21 x 13 x 36	
Liquid volume	ft³	0.1	0.1
Net weight, empty / operating	lb	292 / 302	
Packed weight(BOX(OCEAN))	lb	336	
Internal volume	ft³	9.7	
length x width x height	in	38 x 17 x 27	

Performance is conditioned on the accuracy of customers data and customers ability to supply equipment

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