

1	Xchanger, Inc. Rating for Model C-075 ref #69217		Page 1 of 1
2	Engineer: Aaron Groh		May 6, 2003
3	Prepared for:		
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8	PERFORMANCE	PROCESS MEDIA SIDE	SERVICE MEDIA SIDE
9	Fluid Circulated	Air	50% Propylene Glycol
10	Volumetric Flow Rate	358.0 Std. ft ³ /min	12.3 gal/min
11	Total Fluid Entering	1,611.0 lb/hr	6,430.7 lb/hr
12	Liquid		6,430.7 lb/hr
13	Vapor		
14	Non-Condensibles	1,611.0 lb/hr	
15	Vaporized or (Cond.)		
16	Temperature In	195.0 °F	45.0 °F
17	Temperature Out	55.0 °F	55.0 °F
18	Inlet Pressure (Absolute)	25.061 lb/in ²	
19	Velocity (Standard)	916.5 ft/min	4.0 ft/sec
20	Pressure Loss	0.164 lb/in ²	6.9 lb/in ²
21	Fouling Factor	0.00010 ft ² -°F-hr/BTU	0.00100 ft ² -°F-hr/BTU
22	Total Heat Exchanged: 54,070 BTU/hr		
23			
24	AVERAGE MEDIA PROPERTIES		
25	Thermal Conductivity	0.016 BTU/hr-ft-°F	0.168 BTU/hr-ft-°F
26	Specific Heat	0.240 BTU/lb-°F	0.841 BTU/lb-°F
27	Absolute Viscosity	0.048 lb/ft-hr	24.091 lb/ft-hr
28	Density	0.116 lb/ft ³	65.166 lb/ft ³
29	Latent Heat of Vapor		
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31	CONSTRUCTION		
32	Design Temperature	-20 to 225 °F	-70 to 200 °F
33	Design Pressure (Gauge)	-7.5 to 15.0 lb/in ²	-14.4 to 150.0 lb/in ²
34	Test Pressure (Gauge)		300.0 lb/in ²
35	Cyclic Pressure	No	Not Applicable
36	Test Procedure	No Test	Bubble Test
37	Design Calculations	Not Supplied	Not Supplied
38	ASME Code Stamp	Not Applicable	Not Applicable
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40	Tube Material : Copper	Housing Material : 304 Stainless Steel	
41	Fin Material : Aluminum	Casing Material : Galvanized Steel	
42	Sealant Material : Silicone	Phenolic Coating : None	
43	Removable Core : Yes, Front & Rear	Mist Eliminator : None	
44	Tube Circuit Type: Trapped	Gas Flow Dir. : Left Hand Horizontal	
45	Drawing Number :	Weight (Dry/Wet) : 221 / 227 lb	
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47	CONNECTIONS		
48	Process Inlet : 4" ANSI 150 lb pattern FFF, 3/8" thick		
49	Process Outlet : 4" ANSI 150 lb pattern FFF, 3/8" thick		
50	Service Inlet : 1" Bronze ANSI 150 lb FFF		
51	Service Outlet : 1" Bronze ANSI 150 lb FFF		
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53	NOTES		
54	Approximate unit dimensions (inches): A = 18, B = 40, C = 22, D = 10		
55	Construction material suitability must be determined by customer.		
56	The process flow must be uniform, smooth and free of pulsation.		
57	This unit is not designed for cycling process gas pressure.		
58	It is likely that condensate will carry-over in process stream.		
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