

### Air-Cooled Heat Exchanger Specification Sheet

1	Client:											
2	Location:											
3	Service of Unit:											
4	Item No.: 180700											
5	Date: 4/2/2019											
6	Size & Type	14	/	7	ft	Type	Forced	Number of Bays	1			
7	Surf/Unit-Finned Tube	4,952 ft <sup>2</sup>			Bare area/bundle	399	ft <sup>2</sup>	Ratio (Total	12.41			
8	Heat exchanged	81630 BTU/h			MTD, Eff	8.35 °F						
9	Transfer rate	4.63	Bare, Service		24.51	Clean	65.48	BTU/(h-ft <sup>2</sup> -F)				
10	<b>PERFORMANCE DATA - TUBE SIDE</b>											
11	Fluid Circulated	Wet Natural Gas					In/Out					
12	Total Fluid Entering	lb/h	11,906			Density, Liq	lb/ft <sup>3</sup>	/				
13		MM SCFD	5			Density, Vap	lb/ft <sup>3</sup>	4.903	/	5.089		
14	Temperature	°F	110	/	100	Specific Heat, Liq	BTU/(lb-F) /					
15	Liquid	lb/h	0	/	0	Specific Heat, Vap	BTU/(lb-F)	0.6792	/	0.6939		
16	Vapor	lb/h	18	/	18	Therm. Cond, Liq	BTU/(ft-h-F) /					
17	Noncondensable	lb/h	11888	/	11888	Therm. Cond, Vap	BTU/(ft-h-F) 0.024 / 0.024					
18	Steam	lb/h	/			Freeze Point	°F					
19	Water	lb/h	/			Bubble / Dew point	°F		-34.42	/	99.74	
20	Molecular wt, Vap	22 / 22			Latent heat	BTU/lb						
21	Molecular wt, NC						Inlet pressure (abs)	psi	1,114.7			
22	Viscosity, Liq	cp	/			Pres Drop, Allow/Calc	psi	10	/	0.56		
23	Viscosity, Vap	cp	0.0140	/	0.0140	Fouling resistance	ft <sup>2</sup> -h-F/BTU		0.001			
24	<b>PERFORMANCE DATA - AIR SIDE</b>											
25	Air Quantity, Total	170,000	lb/h			Altitude	500	ft				
26	Air Quantity/Fan	40,791	ft <sup>3</sup> /min			Temperature In	95 °F					
27	Static Pressure	0.28	inH <sub>2</sub> O			Temperature Out	97 °F					
28	Face Velocity	9.76	ft/s	Bundle velocity	2,442	lb/h/ft <sup>2</sup>	Design Ambient	95 °F				
29	<b>DESIGN-MATERIALS-CONSTRUCTION</b>											
30	Design/Vac./Test Pres	1,440	/	/	psi	Design temperature	350 °F					
31	<b>TUBE BUNDLE</b>		<b>Header</b>				<b>Tube</b>					
32	Size	14 ft			Type	Box	Material	SS 304				
33	Number/bay	1			Material	Carbon Steel	Specifications					
34	Tube Rows	4			Passes	4	OD	0.75	Min Thk.	0.049	in	
35	Arrangement	Plug Mat.					No./Bun	178	Lng	12	ft	
36	Bundles	1 par			Gasket Mat.	Pitch		1.625 / 1.407	30	deg		
37	Bays	1 par			Corr. Allow.	in		<b>Fin</b>				
38	Bundle frame	Inlet Nozzle			1	6 in	Type	L-finned				
39	<b>MISCELLANEOUS</b>		Outlet nozzle			1	6 in	Material	Aluminum 1060			
40	Struct. Mount.	Special Nozzles					OD	1.5	Tks	0.016	in	
41	Surf.Prepare	Rating			900	ANSI	No.	10	#/in	DesTemp	°F	
42	Louvers	TI					PI	Code ASME Code Sec VIII Div 1				
43	Vibration Switches	Chem Cleaning					Stamp	Yes	Specs			
44	<b>MECHANICAL EQUIPMENT</b>											
45	Fan, Mfr., Model	Driver, Type			V-belt		Speed Reducer, Type					
46	No./Bay	1	RPM			Mfr.	Mfr. & Model					
47	Dia.	6	ft	Blade(s)		No./Bay	No./Bay					
48	Pitch	Angle			RPM		Rating					
49	Blade(s)	Hub			Enclosure		Ratio					
50	hp/Fan	3	hp	MinAmb		V/Phase/Hz	Support					
51	Control Action on Air Failure-						Louvers					
52	Degree Control of Outlet Process Temperature											
53	Recirculation						Steam Coil		No			
54	Plot Area	ft <sup>2</sup>	Drawing No.		Wt.Bundle	9,027	Wt. Unit	9,027 lb				
55	Notes:											
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58												