

## Air-Cooled Heat Exchanger Specification Sheet

1	Client: Aggreko										
2	Location:										
3	Service of Unit: Cooling Wet Natural Gas										
4	Item No.: 220505-7										
5	Date: 7/7/2022										
6	Size & Type	9	/	7	ft	Type	Forced	Number of Bays	1		
7	Surf/Unit-Finned Tube			2,769	ft <sup>2</sup>	Bare area/bundle	165	ft <sup>2</sup>	Ratio (Total)	16.75	
8	Heat exchanged			666183	BTU/h	MTD, Eff		42.16	°F		
9	Transfer rate	6.51			Bare, Service	95.6	Clean	144.64	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		9,650		Density, Liq	lb/ft <sup>3</sup>	/	58.686		
13		MM SCFD		2.8		Density, Vap	lb/ft <sup>3</sup>	0.271	/	0.256	
14	Temperature	°F		185	/	120	Specific Heat, Liq	BTU/(lb-F)	/	1.1489	
15	Liquid	lb/h		0	/	341	Specific Heat, Vap	BTU/(lb-F)	0.4873	/	0.4578
16	Vapor	lb/h		470	/	128	Therm. Cond, Liq	BTU/(ft-h-F)	/	0.776	
17	Noncondensable	lb/h		9180	/	9180	Therm. Cond, Vap	BTU/(ft-h-F)	0.019	/	0.016
18	Steam	lb/h		/			Freeze Point	°F			
19	Water	lb/h		/			Bubble / Dew point	°F	-391.68	/	166.41
20	Molecular wt, Vap			28.53	/	28.53	Latent heat	BTU/lb			
21	Molecular wt, NC						Inlet pressure (abs)	psi	64.7		
22	Viscosity, Liq	cp		/	0.5706		Pres Drop, Allow/Calc	psi	15	/	11.26
23	Viscosity, Vap	cp		0.0117	/	0.0108	Fouling resistance	ft <sup>2</sup> -h-F/BTU	0.001		
24	<b>PERFORMANCE DATA - AIR SIDE</b>										
25	Air Quantity, Total	142,000	lb/h			Altitude	2,500	ft			
26	Air Quantity/Fan	36,684	ft <sup>3</sup> /min			Temperature In	95	°F			
27	Static Pressure	0.8	inH2O			Temperature Out	114	°F			
28	Face Velocity	13.29	ft/s	Bundle velocity	3,087	lb/h/ft <sup>2</sup>	Design Ambient	95	°F		
29	<b>DESIGN-MATERIALS-CONSTRUCTION</b>										
30	Design/Vac./Test Pres	1,287	/	/		psi	Design temperature	300	°F		
31	<b>TUBE BUNDLE</b>		<b>Header</b>			<b>Tube</b>					
32	Size	9	ft	Type	Box	Material	Carbon Steel				
33	Number/bay	1		Material	Carbon Steel	Specifications					
34	Tube Rows	3		Passes	3	OD	0.625	Min Thk.	0.065	in	
35	Arrangement			Plug Mat.		No./Bun	152	Lng	7	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	2	3 in	Type	L-finned			
39	<b>MISCELLANEOUS</b>			Outlet nozzle	2	3 in	Material	Aluminum 1060			
40	Struct. Mount.			Special Nozzles			OD	1.5	Tks	0.0625 in	
41	Surf.Prepare			Rating	600	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.	5	ft	Blade(s)	No./Bay		No./Bay				
48	Pitch		Angle	RPM	Rating						
49	Blade(s)		Hub	Enclosure	Ratio						
50	hp/Fan	7.5	hp	MinAmb	V/Phase/Hz		Support				
51	Control Action on Air Failure-									Louvers	
52	Degree Control of Outlet Process Temperature										
53	Recirculation								Steam Coll	No	
54	Plot Area	ft <sup>2</sup>	Drawing No.	Wt.Bundle	5,859	Wt. Unit	5,859	lb			
55	Notes:										
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