

Air-Cooled Heat Exchanger Specification Sheet

1	Client: Aggreko											
2	Location:											
3	Service of Unit: Cooling Water											
4	Item No.: 230973											
5	Date: 4/11/2024											
6	Size & Type	32	/	9	ft	Type	Forced	Number of Bays	1			
7	Surf/Unit-Finned Tube	30,467 ft ²			Bare area/bundle	1,530	ft ²	Ratio (Total	19.91			
8	Heat exchanged	7503783 BTU/h			MTD, Eff	65.11 °F						
9	Transfer rate	5.67	Bare, Service		75.31	Clean	148.36		BTU/(h-ft ² -F)			
10	PERFORMANCE DATA - TUBE SIDE											
11	Fluid Circulated	Water					In/Out					
12	Total Fluid Entering	lb/h	750,625			Density, Liq	lb/ft ³	60.677	/	60.91		
13		GPM	1,500			Density, Vap	lb/ft ³	0	/	0		
14	Temperature	°F	180	/	170	Specific Heat, Liq	BTU/(lb-F)	1.0003	/	1		
15	Liquid	lb/h	750625	/	750625	Specific Heat, Vap	BTU/(lb-F)	0	/	0		
16	Vapor	lb/h	0	/	0	Therm. Cond, Liq	BTU/(ft-h-F)	0.384	/	0.381		
17	Noncondensable	lb/h	0	/	0	Therm. Cond, Vap	BTU/(ft-h-F)	0	/	0		
18	Steam	lb/h	/			Freeze Point	°F	0				
19	Water	lb/h	/			Bubble / Dew point	°F	0	/	0		
20	Molecular wt, Vap	/			Latent heat	BTU/lb	0					
21	Molecular wt, NC						Inlet pressure (abs)	psi	84.7			
22	Viscosity, Liq	cp	0.3443	/	0.3729	Pres Drop, Allow/Calc	psi	10	/	0.68		
23	Viscosity, Vap	cp	0.0000	/	0.0000	Fouling resistance	ft ² -h-F/BTU	0.001				
24	PERFORMANCE DATA - AIR SIDE											
25	Air Quantity, Total	840,000	lb/h			Altitude	958 ft					
26	Air Quantity/Fan	101,399	ft ³ /min			Temperature In	90 °F					
27	Static Pressure	0.76	inH ₂ O			Temperature Out	127 °F					
28	Face Velocity	13.03	ft/s	Bundle velocity	3,238	lb/h/ft ²	Design Ambient	90 °F				
29	DESIGN-MATERIALS-CONSTRUCTION											
30	Design/Vac./Test Pres	852	/	0	/	0	psi	Design temperature	300 °F			
31	TUBE BUNDLE			Header			Tube					
32	Size	32 ft			Type	Box		Material	Carbon Steel			
33	Number/bay	1			Material	Carbon Steel		Specifications				
34	Tube Rows	4			Passes	1		OD	1.25	Min Thk.	0.065 in	
35	Arrangement						Plug Mat.	No./Bun	162	Lng	30 ft	
36	Bundles	1 par			Gasket Mat.			Pitch	2.625	/	2.273 30 deg	
37	Bays	1 par			Corr. Allow.	0	in	Fin				
38	Bundle frame				Inlet Nozzle	3	10 in	Type	L-finned			
39	MISCELLANEOUS						Outlet nozzle	2	10 in			
40	Struct. Mount.						Special Nozzles	OD	2.5	Tks	0.016 in	
41	Surf.Prepare						Rating	600 ANSI		No.	10 #/in	DesTemp 0 °F
42	Louvers						TI	PI		Code ASME Code Sec VIII Div 1		
43	Vibration Switches						Chem Cleaning			Stamp	Yes	Specs
44	MECHANICAL EQUIPMENT											
45	Fan, Mfr., Model				Driver, Type	V-belt		Speed Reducer, Type				
46	No./Bay	2	RPM		Mfr.	Mfr. & Model						
47	Dia.	8	ft	Blade(s)	No./Bay			No./Bay				
48	Pitch	Angle			RPM			Rating				
49	Blade(s)	Hub			Enclosure			Ratio				
50	hp/Fan	20	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	0	ft ²	Drawing No.	Wt.Bundle		17,963	Wt. Unit	17,963 lb			
55	Notes:											
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