

Air-Cooled Heat Exchanger Specification Sheet

1	Client: Aggreko								
2	Location:								
3	Service of Unit: Cooling Water								
4	Item No.: 230912								
5	Date: 5/1/2024								
6	Size & Type	42	/	15	ft	Type	Forced	Number of Bays	1
7	Surf/Unit-Finned Tube	91,794 ft ²			Bare area/bundle	4,267	ft ²	Ratio (Total)	21.51
8	Heat exchanged	11226560 BTU/h			MTD, Eff	27.55 °F			
9	Transfer rate	5.04	Bare, Service		95.49	Clean	143.94 BTU/(h-ft ² -F)		
10	PERFORMANCE DATA - TUBE SIDE								
11	Fluid Circulated	Water				In/Out			
12	Total Fluid Entering	lb/h	374,306		Density, Liq	lb/ft ³	60.91	/	61.532
13		BPD	25,000		Density, Vap	lb/ft ³	0	/	0
14	Temperature	°F	170	/	140	Specific Heat, Liq	BTU/(lb-F) 1 / 0.9997		
15	Liquid	lb/h	374306	/	374306	Specific Heat, Vap	BTU/(lb-F) 0 / 0		
16	Vapor	lb/h	0	/	0	Therm. Cond, Liq	BTU/(ft-h-F) 0.381 / 0.372		
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 114.7		
22	Viscosity, Liq	cp	0.3729	/	0.4743	Pres Drop, Allow/Calc	psi 20 / 4.51		
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	1,330,000	lb/h		Altitude	1,112 ft			
26	Air Quantity/Fan	170,151	ft ³ /min		Temperature In	110 °F			
27	Static Pressure	0.69	inH2O		Temperature Out	144 °F			
28	Face Velocity	10.46	ft/s	Bundle velocity	2,453	lb/h/ft ²	Design Ambient	110 °F	
29	DESIGN-MATERIALS-CONSTRUCTION								
30	Design/Vac./Test Pres	510	/	0	/	0	psi	Design temperature	400 °F
31	TUBE BUNDLE		Header			Tube			
32	Size	42 ft		Type	Box	Material Carbon Steel			
33	Number/bay	1		Material	Carbon Steel	Specifications			
34	Tube Rows	6		Passes	3	OD	1	Min Thk.	0.11 in
35	Arrangement	/		Plug Mat.	/	No./Bun	423	Lng	40 ft
36	Bundles	1 par		Gasket Mat.	/	Pitch	2.375 / 2.057	30 deg	
37	Bays	1 par		Corr. Allow.	0	in Fin			
38	Bundle frame	/		Inlet Nozzle	2	8 in	Type	L-finned	
39	MISCELLANEOUS			Outlet nozzle	2	8 in	Material	Aluminum 1060	
40	Struct. Mount.	/		Special Nozzles	/	OD	2.25	Tks	0.016 in
41	Surf.Preap	/		Rating	300	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.	.12	ft	Blade(s)	No./Bay		No./Bay		
48	Pitch	Angle		RPM		Rating			
49	Blade(s)	Hub		Enclosure		Ratio			
50	hp/Fan	30	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	46,697	Wt. Unit	46,697 lb	
55	Notes:								
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