

### Air-Cooled Heat Exchanger Specification Sheet

1	Client:													
2	Location:													
3	Service of Unit:													
4	Item No.: 200302													
5	Date: 8/11/2021													
6	Size & Type	36	/	16	ft	Type	Forced	Number of Bays	1					
7	Surf/Unit-Finned Tube				39,006	ft <sup>2</sup>	Bare area/bundle	1,212	ft <sup>2</sup>	Ratio (Total	16.1			
8	Heat exchanged				3787736	BTU/h	MTD, Eff	52.37	°F					
9	Transfer rate	2.61	Bare, Service			29.85	Clean	46.46	BTU/(h-ft <sup>2</sup> -F)					
10	<b>PERFORMANCE DATA - TUBE SIDE</b>													
11	Fluid Circulated					In/Out								
12	Total Fluid Entering	lb/h	29,899			Density, Liq	lb/ft <sup>3</sup>	/		23.602				
13						Density, Vap	lb/ft <sup>3</sup>	4.985		/ 6.498				
14	Temperature	°F	279		/ 120		Specific Heat, Liq	BTU/(lb-F)			/ 0.774			
15	Liquid	lb/h	0		/ 11075		Specific Heat, Vap	BTU/(lb-F)			0.6538 / 0.7338			
16	Vapor	lb/h	29899		/ 18824		Therm. Cond, Liq	BTU/(ft-h-F)			/ 0.045			
17	Noncondensable	lb/h	0		/ 0		Therm. Cond, Vap	BTU/(ft-h-F)			0.027 / 0.024			
18	Steam	lb/h					Freeze Point	°F						
19	Water	lb/h					Bubble / Dew point	°F		28.07	/ 173.35			
20	Molecular wt, Vap	29.17		/ 29.17		Latent heat		BTU/lb						
21	Molecular wt, NC						Inlet pressure (abs)	psi	1,130.7					
22	Viscosity, Liq	cp			/ 0.0638		Pres Drop, Allow/Calc	psi	5	/ 0.1				
23	Viscosity, Vap	cp	0.0173		/ 0.0159		Fouling resistance	ft <sup>2</sup> -h-F/BTU		0.001				
24	<b>PERFORMANCE DATA - AIR SIDE</b>													
25	Air Quantity, Total	1,495,000	lb/h			Altitude		120	ft					
26	Air Quantity/Fan	180,748	ft <sup>3</sup> /min			Temperature In		105	°F					
27	Static Pressure	0.58	inH2O			Temperature Out		115	°F					
28	Face Velocity	11.9	ft/s		Bundle velocity	2,953	lb/h/ft <sup>2</sup>	Design Ambient	105	°F				
29	<b>DESIGN-MATERIALS-CONSTRUCTION</b>													
30	Design/Vac./Test Pres	1,350	/ /			psi		Design temperature	350	°F				
31	<b>TUBE BUNDLE</b>			<b>Header</b>			<b>Tube</b>							
32	Size	36 ft		Type	Box		Material	Carbon Steel						
33	Number/bay	2		Material	Carbon Steel		Specifications							
34	Tube Rows	4		Passes	1		OD	0.625	Min Thk.	0.065	in			
35	Arrangement						Plug Mat.	No./Bun	226	Lng	34	ft		
36	Bundles	2 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	10 in	Type	L-finned					
39	<b>MISCELLANEOUS</b>			Outlet nozzle			1	10 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	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	ft <sup>2</sup>	Drawing No.		Wt.Bundle		14,019	Wt. Unit	28,038	lb				
55	Notes:													
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