

## Air-Cooled Heat Exchanger Specification Sheet

1	Client: TransTex										
2	Location:										
3	Service of Unit: Cooling Water										
4	Item No.: 221012										
5	Date: 11/3/2022										
6	Size & Type	12	/	9	ft	Type	Forced	Number of Bays	1		
7	Surf/Unit-Finned Tube	8,317			ft <sup>2</sup>	Bare area/bundle	344	ft <sup>2</sup>	Ratio (Total	24.18	
8	Heat exchanged	1487424			BTU/h	MTD, Eff	38.68		°F		
9	Transfer rate	5.14	Bare, Service			111.81	Clean	171.29		BTU/(h-ft <sup>2</sup> -F)	
10	<b>PERFORMANCE DATA - TUBE SIDE</b>										
11	Fluid Circulated	Water				In/Out					
12	Total Fluid Entering	lb/h	29,757			Density, Liq	lb/ft <sup>3</sup>	60.795	/	61.793	
13		BPD	2,000			Density, Vap	lb/ft <sup>3</sup>	/			
14	Temperature	°F	175	/	125	Specific Heat, Liq	BTU/(lb-F)	1.0002	/	0.9998	
15	Liquid	lb/h	29757	/	29757	Specific Heat, Vap	BTU/(lb-F)	/			
16	Vapor	lb/h	0	/	0	Therm. Cond, Liq	BTU/(ft-h-F)	0.383	/	0.366	
17	Noncondensable	lb/h	0	/	0	Therm. Cond, Vap	BTU/(ft-h-F)	/			
18	Steam	lb/h	/			Freeze Point	°F	/			
19	Water	lb/h	/			Bubble / Dew point	°F	/			
20	Molecular wt, Vap	/			Latent heat	BTU/lb	/				
21	Molecular wt, NC	/			Inlet pressure (abs)	psi	94.7				
22	Viscosity, Liq	cp	0.3582	/	0.5370	Pres Drop, Allow/Calc	psi	20	/	0.53	
23	Viscosity, Vap	cp	/			Fouling resistance	ft <sup>2</sup> -h-F/BTU	0.001			
24	<b>PERFORMANCE DATA - AIR SIDE</b>										
25	Air Quantity, Total	339,000	lb/h			Altitude	300	ft			
26	Air Quantity/Fan	81,620	ft <sup>3</sup> /min			Temperature In	100	°F			
27	Static Pressure	0.97	inH2O			Temperature Out	118	°F			
28	Face Velocity	18.39	ft/s	Bundle velocity	4,584	lb/h/ft <sup>2</sup>	Design Ambient	100	°F		
29	<b>DESIGN-MATERIALS-CONSTRUCTION</b>										
30	Design/Vac./Test Pres	950	/	/	psi	Design temperature	450	°F			
31	<b>TUBE BUNDLE</b>		<b>Header</b>			<b>Tube</b>					
32	Size	12	ft			Type	Box	Material	Carbon Steel		
33	Number/bay	1	Material			Carbon Steel	Specifications				
34	Tube Rows	4	Passes			4	OD	0.75	Min Thk.	0.065	in
35	Arrangement	Plug Mat.			No./Bun	186	Lng	10	ft		
36	Bundles	1	Gasket Mat.			Pitch	2	/	1.732	30	deg
37	Bays	1	Corr. Allow.			in	<b>Fin</b>				
38	Bundle frame	Inlet Nozzle			1	3	in	Type	L-finned		
39	<b>MISCELLANEOUS</b>		Outlet nozzle			1	3	in	Material	Aluminum 1060	
40	Struct. Mount.	Special Nozzles			OD	2	Tks	0.016	in		
41	Surf. Prep	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.	7	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	ft <sup>2</sup>	Drawing No.	Wt. Bundle	7,455	Wt. Unit	7,455	lb			
55	Notes:										
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