

Air-Cooled Heat Exchanger Specification Sheet

1	Client: Ovintiv											
2	Location:											
3	Service of Unit: Cooling Water											
4	Item No.: 230492											
5	Date: 6/12/2024											
6	Size & Type	42	/	9	ft	Type	Forced	Number of Bays	1			
7	Surf/Unit-Finned Tube	33,708		ft ²		Bare area/bundle	2,086	ft ²	Ratio (Total/	16.16		
8	Heat exchanged	4697550		BTU/h		MTD, Eff		25.5	°F			
9	Transfer rate	7.39		Bare, Service		88.32	Clean	160.58	BTU/(h-ft ² -F)			
10	PERFORMANCE DATA - TUBE SIDE											
11	Fluid Circulated	Water				In/Out						
12	Total Fluid Entering	lb/h	470,000		Density, Liq	lb/ft ³	61.339		/	61.532		
13		BPD	30,000		Density, Vap	lb/ft ³	/					
14	Temperature	°F	150	/	140	Specific Heat, Liq	BTU/(lb-F)	0.9997	/	0.9997		
15	Liquid	lb/h	470000	/	470000	Specific Heat, Vap	BTU/(lb-F)	/				
16	Vapor	lb/h	0	/	0	Therm. Cond, Liq	BTU/(ft-h-F)	0.375	/	0.372		
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	164.7					
22	Viscosity, Liq	cp	0.4378	/	0.4743	Pres Drop, Allow/Calc	psi	20	/	5.39		
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	1,050,000	lb/h			Altitude	200	ft				
26	Air Quantity/Fan	85,829	ft ³ /min			Temperature In	110	°F				
27	Static Pressure	0.89	inH2O			Temperature Out	128	°F				
28	Face Velocity	12.78	ft/s	Bundle velocity	3,127	lb/h/ft ²	Design Ambient	110	°F			
29	DESIGN-MATERIALS-CONSTRUCTION											
30	Design/Vac./Test Pres	1,600	/	/	psi	Design temperature	200	°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	4		Passes	2	OD	1	Min Thk.	0.065	in		
35	Arrangement				Plug Mat.	No./Bun	206	Lng	40	ft		
36	Bundles	1	par	Gasket Mat.			Pitch	2	/	1.7321	30	deg
37	Bays	1	par	Corr. Allow.	in		Fin					
38	Bundle frame				Inlet Nozzle	1	8	in	Type	L-finned		
39	MISCELLANEOUS					Outlet nozzle	1	8	in	Material	Aluminum 1060	
40	Struct. Mount.				Special Nozzles	OD	2	Tks	0.016	in		
41	Surf. Prep				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	MECHANICAL EQUIPMENT											
45	Fan, Mfr., Model				Driver, Type	V-belt	Speed Reducer, Type					
46	No./Bay	3	RPM	Mfr.	Mfr. & Model							
47	Dia.	8	ft	Blade(s)	No./Bay							
48	Pitch	Angle			RPM							
49	Blade(s)	Hub			Enclosure							
50	hp/Fan	20	hp	MinAmb	V/Phase/Hz							
51	Control Action on Air Failure-	Louvers										
52	Degree Control of Outlet Process Temperature											
53	Recirculation				Steam Coil			No				
54	Plot Area	ft ²	Drawing No.	Wt. Bundle	19,322	Wt. Unit	19,322	lb				
55	Notes:											
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57												
58												