

Air-Cooled Heat Exchanger Specification Sheet

Client:							
Location:							
Service of Unit: Cooling Water							
Item No.: 250905							
Date: 9/9/2025							
Size & Type	63	/	15	ft	Type	Forced	Number of Bays 1
Surf/Unit-Finned Tube			121,711	ft ²	Bare area/bundle	6,113	ft ² Ratio (Total 19.91
Heat exchanged			10035000	BTU/h	MTD, Eff	25.82	°F
Transfer rate	3.66		Bare, Service	63.58	Clean	86.55	BTU/(h-ft ² -F)

PERFORMANCE DATA - TUBE SIDE

Fluid Circulated	Water			In/Out			
Total Fluid Entering	lb/h	250,911		Density, Liq	lb/ft ³	61.131	/ 61.87
	BPD	15,000		Density, Vap	lb/ft ³	0	/ 0
Temperature	°F	160	/ 120	Specific Heat, Liq	BTU/(lb-F)	0.9998	/ 0.9999
Liquid	lb/h	250911	/ 250911	Specific Heat, Vap	BTU/(lb-F)	0	/ 0
Vapor	lb/h	0	/ 0	Therm. Cond, Liq	BTU/(ft-h-F)	0.378	/ 0.364
Noncondensable	lb/h	0	/ 0	Therm. Cond, Vap	BTU/(ft-h-F)	0	/ 0
Steam	lb/h	/		Freeze Point	°F	0	
Water	lb/h	/		Bubble / Dew point	°F	0	/ 0
Molecular wt, Vap		/		Latent heat	BTU/lb	0	
Molecular wt, NC				Inlet pressure (abs)	psi	114.7	
Viscosity, Liq	cp	0.4042	/ 0.5612	Pres Drop, Allow/Calc	psi	20	/ 0.06
Viscosity, Vap	cp	0.0000	/ 0.0000	Fouling resistance	ft ² -h-F/BTU	0.001	

PERFORMANCE DATA - AIR SIDE

Air Quantity, Total	2,040,000	lb/h	Altitude	2,500	ft
Air Quantity/Fan	175,194	ft ³ /min	Temperature In	100	°F
Static Pressure	0.84	inH ₂ O	Temperature Out	120	°F
Face Velocity	10.63	ft/s	Bundle velocity	2,477	lb/h/ft ²
			Design Ambient	100	°F

DESIGN-MATERIALS-CONSTRUCTION

Design/Vac/Test Pres	1,600	/ 0 / 0	psi	Design temperature	200	°F
TUBE BUNDLE		Header		Tube		
Size	63 ft	Type	Box	Material	Carbon Steel	
Number/bay	1	Material	Carbon Steel	Specifications		
Tube Rows	5	Passes	1	OD	1.25	Min Thk. 0.095 in
Arrangement		Plug Mat.		No./Bun	323	Lng 60 ft
Bundles	1 par	Gasket Mat.		Pitch	2.625 / 2.273	30 deg
Bays	1 par	Corr. Allow.	0 in	Fin		
Bundle frame		Inlet Nozzle	2 11 in	Type	L-finned	
MISCELLANEOUS		Outlet nozzle	2 11 in	Material	Aluminum 1060	
Struct. Mount.		Special Nozzles		OD	2.5	Tks 0.016 in
Surf.Prepare		Rating	900 ANSI	No. 10 #/in	DesTemp	0 °F
Louvers		TI	PI	Code	ASME Code Sec VIII Div 1	
Vibration Switches		Chem Cleaning		Stamp	Yes	Specs

MECHANICAL EQUIPMENT

Fan,Mfr., Model				Driver, Type	V-belt	Speed Reducer, Type
No./Bay	3		RPM	Mfr.		Mfr.&Model
Dia.	12	ft	Blade(s)	No./Bay		No./Bay
Pitch			Angle	RPM		Rating
Blade(s)			Hub	Enclosure		Ratio
hp/Fan	40	hp	MinAmb	V/Phase/Hz		Support

Control Action on Air Failure-	Louvers					
Degree Control of Outlet Process Temperature						
Recirculation	Steam Coil			No		
Plot Area 0	ft ²	Drawing No.	Wt.Bundle 71,659	Wt. Unit	71,659	lb

Notes:						