



AXH air-coolers
air-x-limited

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Proposal / Job No. CK77059
Date 4/1/2024
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1	Purchaser	FUELLED	Ultimate User
2	Inquiry / PO#		Destination
3	# Units	1	Model 168EF-122-28
4	Assembly	PACKAGED	Draft FORCED
			Overall Size , Ft
			Est Wt 42500 LBS

THERMAL & MECHANICAL DESIGN

5	Service	EJW	AUX-W	AC
6	Flow	450GPM	80GPM	450GPM
7	Fluid	50%GLY	50%GLY	50%GLY
8	Temp. In / Out, °F	166.0 / 156.0	130.0 / 115.0	166.0 / 149.0
9	Pressure, PSI			
10	Pressure Drop, PSI	13.6	.3	2.2
11	Heat Load, BTU/HR	2060421	533656	3493565
12	True LMTD	32.8	14.7	29.3
13	Overall Rate, U	174.9	33.7	140.4
14	Fouling Factor	.0005	.0005	.0005
15	Surface, Tube / Total, Sq Ft	390 / 6209	1101 / 16399	990 / 15739
16	Sections, #	(1)	(1)	(1)
17	Design Temp, °F Max / Min	300 / -20	300 / -20	350 / -20
18	MWP / Test Press, PSIG	* 14 / 75	* 14 / 75	300 / 390
19	Pass Arrangement	CROSSFLOW	CROSSFLOW	CROSSFLOW
20	# Tube Rows	4	4	5
21	# Tube Passes	1	2	1
22	Tubes, OD x BWG	5/8X16	3/4X16	5/8X16
23	Material	SA214 STEEL	SA214 STEEL	SA214 STEEL
24	# Per Section / Length, Ft	86 / 28	202 / 28	218 / 28
25	Turbulators			
26	Accelerators			
27	Fins, Type	HI-EFF	HI-EFF	HI-EFF
28	Material	AL	AL	AL
29	Nozzles, Rating / Type	150RF	150RF	300RF
30	Material	SA105	SA105	SA105
31	#-Inlets / Size In	(1) 6	(1) 6	(1) 8
32	#-Outlets / Size In	(1) 6	(1) 6	(1) 8
33	Headers, Type	REC TUBE	REC TUBE	BOX
34	Material	A500	A500	SA516-70
35	Corrosion Allow, In			.0625
36	Grooved Tubesheet	SGL	SGL	DBL
37	Plugs, Type	TAPER	SHOULDER	SHOULDER
38	Plugs Material	STEEL	STEEL	A105 STEEL
39	PWHT			
40	ASME Code & Nat'l Board			YES
41	CRN			AB / BC / SK
42	Add'l Specs & Options			
43	API			
44	Louvers / Hail Screen	MAN /	MAN /	AUTO /
45	Inspection / NDT			SX

AIR-SIDE PERFORMANCE		FAN DATA		DRIVER DATA	STRUCTURAL
46	Ambient Air Temp, In °F	105	Fan(s) (1) MOORE-10K-60VT	Type	Guards FAN
47	Elevation, Ft	2500	Blade Material ALUMINUM	V-BELT BY OTHERS	DISCHARGE GUARD
48	Air Flow, SCFM	250,600	HP / Fan 67.2		SOFT BUGSCREENS
49	Outlet Air Temp, °F	126.9	Dia, In / # Blades 168 / 12		
50	Min Air Temp, °F	-20	RPM 222		
51			Tipspeed, FPM 9764		
52	Est. Noise Data:	86 dBA @1m, 70 dBA @ 15m	Pitch, Deg 14.1		

53 **Additional Info.** *-BUILT TO STANDARD 150# DESIGN BUT DESIGNATED 14# TO AVOID THE NEED FOR PROVINCIAL REGISTRATION

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NDT Legend		FX= 100% X-Ray of all header & nozzle butt welds with UT of attachment welds. SX= Spot X-Ray of 1 long seam & 1 end closure, per header. BX = 100% X-Ray of all nozzle butt welds. UT = 100% UT of all header seam and nozzle attachment welds. H = Hardness testing.	