

211270



air-x-hemphill

2230 East 49th Street Phone (918) 712-8268
 Tulsa, OK 74105 Fax (918) 712-8269
 info@airxhemphill.com www.airxhemphill.com

Proposal / Job No 49062
Date 7/30/2004
Page 1 OF 1

1	Purchaser	JWP NEW FLOW & HEAT LOAD	Ultimate User	ENCORE
2	Inquiry / PO#	CASE 1 - TURBO GLYCOL COOLER	Destination	NORTH DAKOTA
3	# Units	2	Model	156-2ZF
4	Assembly	PACKAGED	Draft	FORCED
			Reference	
			Overall Size (WxL), Ft	14' W x 47' L
			Est Wt	31000 LBS

THERMAL & MECHANICAL DESIGN

5	Service	COOLANT
6	Flow	1033GPM
7	Fluid	1.06SPGR
8	Temp. In / Out, °F	137.3 / 120.0
9	Pressure, PSI	
10	Pressure Drop, PSI	6.9
11	Heat Load, BTU/HR	7918000
12	True LMTD	19.4
13	Overall Rate, U	163.9
14	Fouling Factor	.0005
15	Surface, Tube / Total, Sq Ft	2589 / 55407
16	Sections, #	(1)
17	Design Temp. °F Max / Min	300 / -20
18	MWP / Test Press, PSIG	150 / 195
19	Pass Arrangement	CROSSFLOW
20	# Tube Rows	3
21	# Tube Passes	2
22	Tubes, OD x BWG	1X16BWG
23	Material	SA214 STEEL
24	# Per Section / Length, Ft	221 / 45
25	Turbulators	
26	Accelerators	
27	Fins, Type	HI-EFF
28	Material	AL
29	Nozzles, Rating / Type	150RF
30	Material	SA105
31	#-Inlets / Size In	(1) 8
32	#-Outlets / Size In	(1) 6
33	Headers, Type	REC TUBE
34	Material	A-500
35	Corrosion Allow, In	
36	Grooved Tubesheet	SGL
37	Plugs, Type	SHOULDER
38	Plugs Material	A105 STEEL
39	PWHT	
40	ASME Code Stamp & NB	
41	Add'l Specs & Certs	
42	CRN	
43	API	
44	Inspection / NDT	

150# @ 300°F

221 CS 1" 16 BWG @ 45'

3R / 2P

FX= 100% X-Ray of all header seam, attachment & nozzle butt 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, attachment & nozzle butt welds. H = Hardness testing.

AIR-SIDE PERFORMANCE		FAN DATA		DRIVER DATA		ACCESSORIES	
45	Ambient Air Temp, In °F	100	Fan(s) (2)MOORE10000VT-48	Type	Guards	FAN	
46	Elevation, Ft	3000	Blade Material ALUMINUM	V-BELT DRIVE BY (2) 50HP.			
47	Air Flow, SCFM	427,426	HP / Fan 30.6	1800RPM, 460/60/3, TEFC, VFD			
48	Outlet Air Temp, °F	116.6	Dia, In / # Blades 156 / 8	(10:1) 1.10 SF MOTORS			
49	Min Air Temp, °F	-20	RPM 259				
50			Tipspeed, FPM 10577				
51			Pitch, Deg 10.5				

52 **Additional Information:**

56 **Noise Data:**