

Date	6/29/2011	Rev.	1	By	jfos
Proposal	28734JFOS	Item No.	A		
Job No.	R-8161	Item No.	1		



1 Customer Nexen Cust. PO No. 4500146159

2 Address Calgary, AB Plant Location Fort Nelson, BC

3	Service	Inlet Cooler					Weight/Bay	61,900 lbs	
4	2	Model	1-1134T120		Forced Draft	No. of Bays	1	No. of Fan Cells / Bay	2
5	Dimensions	L	35' 0"	W	16' 0"	H	17' 0"	Grade Mounted	Shop Assembled Unit(s)
6	PERFORMANCE /MODEL								
7	Customer Item			AR - 250					
8	Fluid Circulated			Natural Gas and Produced Water					
9	Heat Exchanged		kW	2,917.0					x 1.050
10	U External - Bare		W/m².°C	24.13					- 512.0
11	CLMTD		°C	17.27					
12	External Surface		m²	7,346.0					
13	Bare Tube Surface		m²	346.0					
14	TUBE SIDE /MODEL								
15	Total Flow		kg/s	27.73					x 1.050
16				IN			OUT		
17	Vapor		"	27.73			x 1.050	27.32 x 1.050	
18	Liquid		"	0.00			x 1.050	0.41 x 1.050	
19	Steam		"	0.00			x 1.050	0.00 x 1.050	
20	Non-Condensable		"	0.00			x 1.050	0.00 x 1.050	
21	Temperature		°C	80.0			45.0		
22	Pressure		kPag	3,549.0			3,480.0		
23	Pressure Drop		kPa	Allowed:		70.0	Calculated:		69.0
24	Density	L/V	kg/m³	993.2 (AVG)		18.6100			
25	Viscosity	L/V	cP	0.594		0.014		0.594	0.013
26	Vapor Molecular Weight			20.0			20.0		
27	Specific Heat	L/V	kJ/kg.°C	4.309 (Avg)		1.994 (Avg)			
28	Thermal Conductivity	L/V	W/m.°C	0.6380 (Avg)		0.0373 (Avg)			
29	Fouling Resistance IS		m².°C/W	0.00035					
30	AIR SIDE /MODEL								
31	Temperature In - Out		°C	32.0 - 56.0			(Min. Amb. = -45.0)		
32	Elev	665 m	Air Quantity	kg/s		126.9			
33	CONSTRUCTION /MODEL								
34	Design Press.		kPag - Temp.	°C	4650 - 90 / FV - 90			(MDMT = -45.0)	
35	Codes		ASME VIII/1, API 6th Ed.						
36	No. Bundles - Tubes / Bundle		1 - 428						
37	No. Rows - Passes / Bundle		8 - 2						
38	Header Type - Corrosion Allowance		PLUG BOX- 1/4"						
39	Header Material		SA-516 Grade 70 - NDE Spot UT						
40	Shoulder Plug /Gasket Material		SA - 105 / SOFT IRON						
41	Nozzles In - Out - Series / Bundle		8"(2) - 8"(2) - 300# WN RF						
42	Tube Material		SA-213 316L						
43	Tube O.D. - BWG - Length		1" - 0.065" MIN - 34'						
44	Fin Material - Bond Type		ALUMINUM - L-FOOTED						
45	Fin Height - No. Fins / Inch		Tri	Pitch	5/8" - 10.0 - 2-7/16"				
46	* Slope exit pass 1/8" per foot								
47	FAN /MODEL			MECHANICAL EQUIPMENT			MISCELLANEOUS		
48	Mfr.	MOORE-HD		SPEED REDUCER		DRIVER		1) Auto Louvers	
49	Model	10000 - 42 VE MAN ADJ		Type	HTD BELT	ELECTRIC MOTOR		2) Screens: Bug	
50	kW/fan	24.38	No. of Fans	2	Mfr.	Gates		3) Guards: Fan, Belt	
51	Dia.	10.0	No. of Blades	5	Model No.	PolyChain GT 2		4) Vibration Switch/fan	
52	RPM	340	Pitch	11.2°	Ratio	5.14::1		5) Struc Prep: Galvanize	
53	Tip Speed	10,690.0	ft/min		Service Factor	2.00		Service Factor 1.15	
54	m³/s/Fan	59.3		No. of Belts	1		RPM 1,750		
55	Blade Material	ALUMINUM		Support:	Suspended		V 460 P 3 C 60		
56	Static Pressure	25.470	mmH2O				Class 1, Zone 2		
57	SPL/Fan @ 1 m = 84.3 dBA						Suitable for VFD		
							9) Nitrogen purge pressure parts		