Manufacturer			Heat exchanged	(kW)	257.
Model no.			Surface/Item-Finned tube	(m2)	1579.2
Customer			Bare tube	(m2)	68.101
Plant location			MTD, Eff.	(Deg. C)	6.8
Service			Transfer rate-Finned	(W/m2-K)	25.56
Type draft		FORCED	Bare tube, service	(W/m2-K)	592.72
Bay size (WxL)	(m)	2.65 x 6.4	Bare tube, clean	(W/m2-K)	679.11
No. of bays/Items		1			

Basic design data

Pressure design code	ASME VIII div 1	Structural code	UBC 97
Tube bundle code stamped	No.	Flammable service	Yes.
Heating coil code stamped	No.	Lethal/toxic service	No.

Performance Data - Tube Side

					In		Out	
Fluid name		Propane						
Total fluid entering	(kg/hr)		3015.5	Total flow rate (Liq/Vap)	(kg/hr)	0.0000 / 3015.5	3015.5 /	0.0000
Dew/bubble point	(Deg. C)	/		Water/Steam	(kg/hr)	0.0000 / 0.0000	0.0000 /	0.0000
	(Deg. C)			Noncondensables	(kg/hr)	0.0000		0.0000
Latent heat	(kJ/kg)			Molecular Wt. (Vap/Non-cond)		/	/	
Inlet pressure	(bar)		19.800	Density (Liq/Vap)	(kg/m3)	435.84 / 40.275	435.92 /	46.077
Pressure drop (All/Calc)	(bar)	0.100 /	0.016	Specific heat (Liq/Vap)	(kJ/kg-C)	3.6067 / 2.2738	3.6051 /	2.3921
Velocity (Allow/Calc)	(m/s)	/	0.85	Thermal cond. (Liq/Vap)	(W/m-C)	0.0764 / 0.0253	0.0764 /	0.0238
Inside fouling resistance (m2-K/W)			0.000170	Viscosity (Liq/Vap)	(cP)	0.0730 / 0.0106	0.0730 /	0.0103
		In	Out					
Temperature	(Deg. C)	73.50	56.32					

Performance Data - Air Side

Air inlet temperature	(Deg. C)	48.00	Face velocity	(m/s)	3.15
Air flow rate/item	(m3/s)	45.529	Minimum design ambient temp.	(Deg. C)	5.00
Mass velocity	(kg/s-m2)		Altitude	(m)	20.000
Air outlet temperature	(Deg. C)	52.28	Static pressure	(Pa)	102.95
Air flow rate/fan	(m3/s)	26.879			

Design, Material, and Construction

Design pressure	(barG)	22 + F.V	**Heating Coil**		NO.
Test pressure	(barG)		No. of tubes		
Design temperature	(Deg. C)	120.00	Tube outside diameter	(mm)	
Min. design metal temp.	(Deg. C)		Tube material		
Tube bundle			Fin material and type		
Size (WxL)	(m)	2.5 X 6.4	Fin thickness	(mm)	
No./Bay		1	ASME Code, Sec. VIII, Div. 1		
Number of tube rows		4	Heating fluid		
Bundles in parallel		1	Heating fluid flow rate	(kg/hr)	
Bundles in series			Temperature (In/Out)	(Deg. C)	/
Structure mounting		Grade	Inlet pressure	(bar)	
Pipe rack beams			Pressure drop (All/Calc)	(kPa)	/
Ladders, walkways, platforms			Design temperature	(Deg. C)	
Structure surface prep.			Design pressure	(bar)	
Header surface prep.			Inlet/Outlet nozzle		/
Louver		NO.	**Header**		
Material			Type		Plug
Action control			Material		SA-516 Gr70(N)
Action type			Corrosion Allowance	(mm)	3
			No. of passes		4
			Tube / Tubesheet		Strength weld

Design, Material, and Construction (continued)

Header (continued)				No./Bundle			140
Slope / Split	1% on last pass / No			Length	(m)		6.096
Plug material	SA 350 LF2 CL.1			Pitch	(mm)		69.850
Gasket material	Soft Iron			Layout			Triangular
Nozzle	No.	Size, (in)	Rating/Facing	**Fin**			
Inlet	1	4	#300	Type			Extruded
Outlet	1	2	#300	Material			Aluminum
Vent				Thickness (Base / Tip)	(mm)		1 / 0.24
Drain				Selection temp.	(C)		
Chemical Cleaning				Outside diameter	(mm)		57.150
Min. Wall Thk.				Fin density	(fin/meter)		433.1
Tube				ASME Code, Sec. VIII, Div. 1			
Material	SA-334 6			Customer Specifications			
Tube outside diameter	(mm)	25.400					
Min wall thickness	(mm)	1.651					

Mechanical Equipment

Fan				RPM			1500
Manufacturer	Axial Fans Int Srl (or equivalent)			Service factor			
No./Bay	2			Enclosure			Exec / IP55
RPM	(Revs/min.)			Voltage			400
Diameter	(ft)	7		Phase			3
No. of blades				Cycle			50
Angle	(degrees)			Fan noise level	(dB)		max 85
Pitch adjustment	100% Manual			**Speed Reducer**			
Blade material	Aluminium			Type			V- belt
Hub material	Manufacturer Standard			Manufacturer			
@design temp	(kW)			No./Bay			2
@min. ambient temp				Service factor			
Tip speed				Speed ratio			
Driver				Support			
Type	Electrical			Vib. switch			YES
Manufacturer	OME ELECTRIC OR AVL			Enclosure			
No./Bay							
Driver	(kW)	7.5					

Controls - Air Side

Air recirculation			Louvers		
Degree control of outlet process temp.			Positioner		
(Max. Cooling),+/-	/		Signal air pressure (bar)		
Action on control signal failure			From		To
Fan pitch			From		To
Louvers			Supply air pressure (bar)		
Actuator air supply			From		To
Fan			From		To

Shipping

Plot area (WxL)	(m)	2.65 x 6.4	Total weight, Dry / Wet (Kg)	(Based On HTRI)	11,800 / 12,300
Bundle weight	(kg)		Shipping (kg)		
Bay	(kg)				

1) STD. nominated power.