

**API 661 Air-Cooled Heat Exchanger - Specification Sheet**

Job No.		Item No.	AE-2101 A/B/C
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Proposal No.		Contract No.	
Inquiry No.		Order No.	

Manufacturer		Heat exchanged (MegaWatts)	0.3627
Model no.		Surface/Item-Finned tube (m2)	679.06
Customer		Bare tube (m2)	30.163
Plant location	BINAK - GENAVEH	MTD, Eff. (Deg. C)	26.4
Service	BINAK GCS	Transfer rate-Finned (W/m2-K)	21.326
Type draft	INDUCED	Bare tube, service (W/m2-K)	480.11
Bay size (WxL) (m)	1.676 x 3.000	Bare tube, clean (W/m2-K)	547.11
No. of bays/Items	1		

**Basic design data**

Pressure design code		Structural code	
Tube bundle code stamped		Flammable service	
Heating coil code stamped		Lethal/toxic service	

**Performance Data - Tube Side**

Fluid name	HC		In	Out
Total fluid entering (kg/hr)	9530.4	Total flow rate (Liq/Vap) (kg/hr)	0.0000 / 9530.4	0.0000 / 9530.4
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 (barG)	19.000	Density (Liq/Vap) (kg/m3)	/ 15.420	/ 18.986
Pressure drop (All/Calc) (bar)	0.700 / 0.858	Specific heat (Liq/Vap) (kJ/kg-C)	/ 2.2212	/ 2.0659
Velocity (Allow/Calc) (m/s)	/ 19.26	Thermal cond. (Liq/Vap) (W/m-C)	/ 0.0415	/ 0.0332
Inside fouling resistance (m2-K/W)	0.000200	Viscosity (Liq/Vap) (cP)	/ 0.0147	/ 0.0127
	In Out			
Temperature (Deg. C)	124.00	60.00		

**Performance Data - Air Side**

Air inlet temperature (Deg. C)	50.26	Face velocity (m/s)	3.50
Air flow rate/item (m3/hr)	58556	Minimum design ambient temp. (Deg. C)	5.00
Mass velocity (kg/s-m2)		Altitude (m)	12.500
Air outlet temperature (Deg. C)	68.68	Static pressure (bar)	2.07e-3
Air flow rate/fan (m3/hr)	34163		

**Design, Material, and Construction**

Design pressure (barG)	22.000	<b>Heating Coil</b>	
Test pressure (barG)		No. of tubes	
Design temperature (Deg. C)	155.00	Tube outside diameter (mm)	
Min. design metal temp. (Deg. C)		Tube material	
<b>Tube bundle</b>		Fin material and type	
Size (WxL) (m)	0.775 X 3.000	Fin thickness (mm)	
No./Bay	2	ASME Code, Sec. VIII, Div. 1	
Number of tube rows	6	Heating fluid	
Bundles in parallel	2	Heating fluid flow rate (kg/hr)	
Bundles in series		Temperature (In/Out) (Deg. C)	/
Structure mounting		Inlet pressure (barG)	
Pipe rack beams		Pressure drop (All/Calc) (kPa)	/
Ladders, walkways, platforms		Design temperature (Deg. C)	
Structure surface prep.		Design pressure (barG)	
Header surface prep.		Inlet/Outlet nozzle	/
<b>Louver</b>		<b>Header</b>	
Material		Type	
Action control		Material	
Action type		Corrosion Allowance (mm)	
		No. of passes	6