Heat Exchanger Specification Sheet

1							
1	Company:						
2	Location:						
3							
4	Item No.: Your Reference: Date: Rev No.: Job No.: Job No.:						
5 6			no DEM	Han	Connected in	4 parallal	4 oorioo
7			pe BEM	Hor	Connected in	1 parallel	1 series 268.5 m ²
8	Surf/unit(eff.) 268.5 m² Shells/unit 1 Surf/shell (eff.) 268.5 m² PERFORMANCE OF ONE UNIT						
9	Fluid allocation Shell Side Tube Side						Side
10	Fluid name		Overheads		Cooling Water		
11	Fluid quantity, Total	kg/s		12.50		105.1	
12	Vapor (In/Out)	kg/s	12.5075		0	0	0
13	Liquid	kg/s	0		12.5075	105.1389	105.1389
14	Noncondensable	kg/s	0		0	0	0
15							
16	Temperature (In/Out)	°C	46		43.75	20	29.76
17	Dew / Bubble point	°C	46		43.75		
	Density Vapor/Liquid	kg/m³	10.82 /		/ 564	/ 998.83	/ 997.39
	Viscosity	mPa s	0.0085/		/ 0.125	/ 1.0164	/ 0.8043
	Molecular wt, Vap	58.6					
21	Molecular wt, NC		4=== /		/	/	/
22	Specific heat	kJ/(kg K)	1.76 /		/ 2.47	/ 4.194	/ 4.19
	Thermal conductivity	W/(m K)		-	/ 0.102	/ 0.5937	/ 0.6067
24	Latent heat	kJ/kg	337.4		338.4	_	4.04040
	Pressure (abs)	bar	4.9	0.00	4.81683	5	4.91813
	Velocity Pressure drop, allow./calc.	m/s	0.2	9.86	0.08317	0.8	0.08187
	Fouling resist. (min)	bar m² K/W	0.2	0.0000		-	0.0002 Ao based
	Heat exchanged 4300	kW		0.0000		corrected	19.9 °C
	Transfer rate, Service 804.8	Dirty	930.7		Clean 1273.8	corrected	W/(m² K)
31							
32		Shell Si		Т	ube Side		
33	Design/vac/test pressure:g bar	6/ /		6/	/		
	Design/vac/test pressure:g bar Design temperature °C	,		6/	/ 85		•
34		6/ /		6/	/		
34	Design temperature °C	6/ / 85		6/	/ 85		
34 35 36 37	Design temperature °C Number passes per shell corrosion allowance mm Connections In mm 1	6/ / 85 1 3.18 437.95/	- 1	30	/ 85 2 3.18 4.8/ -		
34 35 36 37	Design temperature °C Number passes per shell Corrosion allowance mm	6/ / 85 1 3.18		30	/ 85 2 3.18		
34 35 36 37 38 39	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/	- 1 - 1 - 1	30	/ 85 2 3.18 4.8/ - .51/ -		
34 35 36 37 38 39 40	Design temperature °C Number passes per shell Corrosion allowance mm Connections In mm 1 Size/rating Out 1 ID Intermediate Tube No. 1108 OD 19.05	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg	- 1 - 1 - 1.2	30 254 mm	/ 85 2 3.18 4.8/ - .51/ - / - Length 4150	mm Pitch	
34 35 36 37 38 39 40 41	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma	- 1 - 1 - 1.2 aterial Carb	30 254 mm oon Stee	/ 85 2 3.18 4.8/ - .51/ - / - Length 4150	mm Pitch Tube pattern 60	
34 35 36 37 38 39 40 41 42	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg	- 1 - 1 - 1.2 aterial Carb	30 254 mm oon Stee	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover		
34 35 36 37 38 39 40 41 42 43	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma	- 1 - 1 - 1.2 aterial Carb	30 254 mm oon Stee mm 5	/ 85 2 3.18 4.8/51/ - / - Length 4150 el Shell cover Channel cover	Tube pattern 60	
34 35 36 37 38 39 40 41 42 43	Design temperature °C Number passes per shell Corrosion allowance mm Connections In mm 1 Size/rating Out 1 ID Intermediate Tube No. 1108 OD 19.05 Tube type Plain Shell Carbon Steel ID 9 Channel or bonnet Carbon Steel Tubesheet-stationary Carbon Steel	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma	- 1 - 1 - 1.2 aterial Carb	30 254 mm oon Stee mm 5	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover	Tube pattern 60	
34 35 36 37 38 39 40 41 42 43 44 45	Design temperature °C Number passes per shell Corrosion allowance mm Connections In mm 1 Size/rating Out 1 ID Intermediate Tube No. 1108 OD 19.05 Tube type Plain Shell Carbon Steel ID 9 Channel or bonnet Carbon Steel Tubesheet-stationary Carbon Steel Floating head cover -	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9	- 1 - 1 - 1.2 aterial Carb	30 254 mm oon Stee mm \$	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating	Tube pattern 60)
34 35 36 37 38 39 40 41 42 43 44 45 46	Design temperature °C Number passes per shell Mm Corrosion allowance mm Connections In mm 1 Size/rating Out 1 ID Intermediate Tube No. 1108 OD 19.05 Tube type Plain Shell Carbon Steel ID Channel or bonnet Carbon Steel Tubesheet-stationary Carbon Steel Floating head cover - Baffle-crossing Carbon Steel	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD S	- 1 - 1 - 1.2 aterial Carb	30 254 mm oon Stee mm \$	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating	Tube pattern 60	395 mm
34 35 36 37 38 39 40 41 42 43 44 45 46 47	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD S	- 1 - 1 - 1.2 aterial Carb	30 254 mm oon Stee mm \$	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96	Tube pattern 60)
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD S	- 1 - 1.2 aterial Carb	30 254 mm son Stee mm §	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote tt(%d) 34.96	Tube pattern 60	395 mm
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD S	- 1 - 1 - 1.2 aterial Carb 974 segmental eal type Tube-tube	30 254 mm son Stee mm §	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote tt(%d) 34.96	Tube pattern 60	395 mm
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9 - Type Single: Se U-bend	- 1 - 1 - 1.2 aterial Carb 974 segmental eal type Tube-tube	30 254 mm soon Stee mm S (/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96 Type oint Exp.	Tube pattern 60	395 mm
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9 - Type Single: Se U-bend	- 1 - 1 - 1.2 aterial Carb 074 segmental eal type Tube-tube Type N	30 254 mm Soon Stee mm S (Cur esheet j lone 346	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96 Type oint Exp.	Tube pattern 60	395 mm 570 mm
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9 - Type Single: Se U-bend	- 1 - 1 - 1.2 aterial Carb 074 segmental eal type Tube-tube Type N e entrance 1	30 254 mm Soon Stee mm S (Cur esheet j lone 346	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96 Type oint Exp.	Tube pattern 60	395 mm 570 mm
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9 - Type Single: Se U-bend	- 1 - 1 - 1.2 aterial Carb 074 segmental eal type Tube-tube Type N e entrance 1 Tube Side	30 254 mm Soon Stee mm S (Cur esheet j lone 346	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96 Type oint Exp.	Tube pattern 60 g - ection None V Spacing: c/c Inlet Bundle exit 17 t Metal Jacket Fibe	395 mm 570 mm
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9 - Type Single s Se U-bend Bundle	- 1 - 1 - 1.2 aterial Carb 074 segmental eal type Tube-tube Type N e entrance 1 Tube Side	30 254 mm son Stee mm \$ (Cur esheet j lone 346 e	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96 Type oint Exp.	Tube pattern 60 g - ection None V Spacing: c/c Inlet Bundle exit 17 t Metal Jacket Fibe	395 mm 570 mm kg/(m s²)
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9 - Type Single s Se U-bend Bundle	- 1 - 1.2 aterial Carb 074 Segmental eal type Tube-tube Type N e entrance 1 Tube Side	30 254 mm son Stee mm \$ (Cur esheet j lone 346 e	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96 Type oint Exp.	Tube pattern 60	395 mm 570 mm kg/(m s²)
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9 - Type Single s Se U-bend Bundle	- 1 - 1.2 aterial Carb 074 Segmental eal type Tube-tube Type N e entrance 1 Tube Side	30 254 mm son Stee mm \$ (Cur esheet j lone 346 e	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96 Type oint Exp.	Tube pattern 60	395 mm 570 mm kg/(m s²)
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	Design temperature	6/ / 85 1 3.18 437.95/ 154.05/ / Tks-Avg #/m Ma 950 OD 9 - Type Single s Se U-bend Bundle	- 1 - 1.2 aterial Carb 074 Segmental eal type Tube-tube Type N e entrance 1 Tube Side	30 254 mm son Stee mm \$ (Cur esheet j lone 346 e	/ 85 2 3.18 4.8/51/ - Length 4150 el Shell cover Channel cover Tubesheet-floating mpingement prote t(%d) 34.96 Type oint Exp.	Tube pattern 60	395 mm 570 mm kg/(m s²)