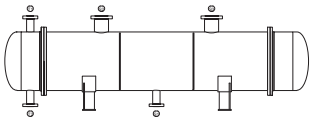
Heat Exchanger TEMA Data Sheet

1	Our Reference: MESUVIGO2018					
2	CUSTOMER: Grupo 6					
3	ATTN: Grupo 6					
4	Description: chilled water cooler					
5	DWG: Please see sketch					
6	Size Ø558 --Tube Length 2700 mm	Type BXM	Hor	Connected in	1 parallel	1 series
7	Surf/unit(eff.) 58,2 **m²**	Shells/unit 1		Surf/shell (eff.)	58,2	**m²**
8	**PERFORMANCE OF ONE UNIT**					
9	Fluid allocation	Shell Side		Tube Side		
10	Fluid name	AMONIA		SEWATER		
11	Fluid quantity, Total **kg/h**	2623		48783		
12	Vapor (In/Out) **kg/h**	131	2623	0	0	
13	Liquid **kg/h**	2492	0	48783	48783	
14	Noncondensable **kg/s**	0	0	0	0	
15						
16	Temperature (In/Out) **°C**	-5,05	-5	15	-1	
17	Dew / Bubble point **°C**					
18	Density Vapor/Liquid **kg/m³**	2,81 / 646,02	2,79 / 646,02	/ 1021,26	/ 1025,49	
19	Viscosity **mPa s**	0,009 / 0,1635	0,009 / 0,1635	/ 1,228	/ 1,721	
20	Molecular wt, Vap	17,03	17,03			
21	Molecular wt, NC					
22	Specific heat **kJ/(kg K)**	2,324 / 4,589	2,324 / 4,589	/ 4,08	/ 4,104	
23	Thermal conductivity **W/(m K)**	0,0235 / 0,5455	0,0235 / 0,5455	/ 0,5696	/ 0,5413	
24	Latent heat **kJ/kg**	1281	1281			
25	Pressure (abs) **bar**	3,5479	3,52124	5	4,25502	
26	Velocity **m/s**	1,47		1,58		
27	Pressure drop, allow./calc. **bar**	0,5	0,02666	0,8	0,74498	
28	Fouling resist. (min) **m² K/W**	0,00005		0,00009		
29	Heat exchanged 887 **kW**			LMTD corrected	9,99	**°C**
30	Transfer rate, Service 1526,4	Dirty 1633,5		Clean 2145,7		**W/(m² K)**

31	**CONSTRUCTION OF ONE SHELL**				**Sketch**	
32			Shell Side	Tube Side		
33	Design/vac/test pressure:g **bar**		16/ / 23	6/ / 9		
34	Design temperature **°C**		50	50		
35	Number passes per shell		1	10		
36	Corrosion allowance **mm**		1,59	0		
37	Connections	In **in**	1 3/ -	1 3/ -		
38		Out	2 6/ -	1 3/ -		
39	Nominal	Intermediate	/ -	/ -		



40	Tube No. 370	OD 19	Tks-Avg 1 **mm**	Length 2700 **mm**	Pitch 23,75 **mm**			
41	Tube type Plain	**#/m**	Material Titanium	Tube pattern Triangular				
42	Shell SA-516 70	ID 542	OD 558 **mm**					
43	Channel or bonnet SA-516 70							
44	Tubesheet-stationary SA-516 70							
45								
46	Baffle-crossing Carbon Steel	Type Unbaffled						
47								
48								
49								
50								
51								
52	Gaskets - Shell side: Not Apply	Gaskets Tube Side: NBR						
53								
54	Code requirements ASME VIII Div.1	TEMA class C - general service						
55	Weight/Shell 955,8	Filled with water 1645,9	Bundle 370,4 **kg**					
56	Remarks							
57	This Data sheet is for academic use only							
58								