

TEMA Heat Exchanger Specification Sheet



1	Job No.
2	Customer:
3	Address:
4	Plant Location:
5	Service of Unit:
6	Size: / in TEMA Type: Hor./Vert: Connected in: parallel series
7	Surf/unit(eff.) ft ² Shells/unit Surf/shell (eff.) ft ²
8	PERFORMANCE OF ONE UNIT
9	Fluid Allocation
10	Shell Side Tube Side
11	Inlet Outlet Inlet Outlet
12	Fluid Name:
13	Fluid Quantity, Total: lb/hr
14	Vapor: lb/hr
15	Liquid: lb/hr
16	Steam: lb/hr
17	Water: lb/hr
18	Noncondensable: lb/hr
19	Temperature: °F
20	Density (Vapor / Liquid): lb/ft ³ / / / /
21	Viscosity (Vapor / Liquid): cP / / / /
22	Specific Heat (Vapor / Liquid): BTU/(lb.°F) / / / /
23	Thermal Conductivity: BTU/(ft·hr·°F) / / / /
24	Latent Heat: BTU/lb @ °F @ @
25	Inlet Pressure (abs): psia
26	Velocity: ft/s
27	Pressure Drop, allowable/calculated: psi / /
28	Fouling Resistance (Min.): (ft ² ·hr·°F)/BTU
29	Average Film Coefficient: BTU/(ft ² ·hr·°F)
30	Heat exchanged: BTU/hr Mean Temperature Difference (MTD) °F
31	Transfer Rate, Required: Fouled: Clean: BTU/(ft ² ·hr·°F)
32	CONSTRUCTION OF ONE SHELL
33	Shell Side Tube Side
34	Design Internal/External/Test pressure: psig / / / /
35	Design Temperature / MDMT: °F / /
36	Number of passes:
37	Corrosion allowance: in
38	Future Machining Allowance (Tubesheet, Flange, Cover): in
39	Minimum Radiography:
40	Special Service (Lethal, Sour, etc.):
41	Post-weld Heat Treatment (PWHT) required:
42	Connections: In
43	Number/Size/Rating/ Type and Facing Out
44	Intermediate
45	Vent
46	Drain
47	Other
48	EXCHANGER CONFIGURATION PER SHELL
49	Number of Tubes: Tube OD (in): Tube thk. (in): (BWG):
50	Tube type (plain/finned/other): Tube Pitch (in): Tube min. or avg. wall:
51	Tube Length (in): Tube Layout: ◀-30 ▲60 ▣90 ◇45
52	Tube to Tubesheet Joint: Shell Diameter (in): ID/OD: Girth Flange Type:
53	Cross Baffle Type: Number of Cross Baffles: Baffle Spacing (in):
54	Baffle Cut (% of Dia.) Vert. or Horiz. Cut: Inlet Spacing (in):
55	Long. Baffle Seal Type: Tube Support Type: U-bend Support Type:
56	Expansion Joint Req. (Y/N): Expansion Joint Type: Bypass Seal Type:
57	Impingement Protection Req. (Y/N): Impng. Protection Type: Sets of Spare Gaskets req'd:
58	Support Type: Number of Supports:
59	ρV ² Inlet Nozzle (lb/(ft·s ²)): ρV ² Bundle Ent. (lb/(ft·s ²)): ρV ² Bundle Exit (lb/(ft·s ²)):
60	Total Weight/Shell Empty (lb): Full of Water (lb): Bundle Weight (lb):
61	Remarks:
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TEMA Heat Exchanger Specification Sheet



1 Customer	Job No.						
2 Address:	PO No.						
3 Plant Location:	Proposal No.						
4 Service of Unit:	Date:	Rev.					
5	Item No.						
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7	EXCHANGER SKETCH						
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28	DESIGN AND CODE REQUIREMENTS						
29 Design Code:	Code Stamp Required:	Calculate MAWP (Y/N):					
30 TEMA Class (R, C, B):	Customer Inspection (Y/N):	Cyclic Service (Y/N):					
31 Baseline UT (Y/N):	Baseline Eddy Current (Y/N):						
32							
33	DESIGN, OPERATING, AND UPSET CONDITIONS (if applicable)						
34		Shell Side	Shell	Tube Side	Tubes		
35	Design	Fluid Temperature	Pressure	Mean Metal	Fluid Temperature	Pressure	Mean Metal
36	Condition/Case	In (°F)	Out (°F)	Temp. (°F)	In (°F)	Out (°F)	Temp. (°F)
37	Cycles						
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44	MATERIALS						
45	Tubes:	Shell Side			Tube Side		
46	Stationary Tubesheet:	Shell:			Channel or Bonnet:		
47	Floating Tubesheet:	Shell Cover/Head:			Channel Cover/Head:		
48	Floating Head Cover:	Girth Flanges:			Girth Flanges:		
49	Cross Baffles:	Gaskets:			Gaskets:		
50	Long. Baffle:	Nozzle Flanges:			Nozzle Flanges:		
51	Tie Rods and Spacers:	Nozzle Necks:			Nozzle Necks:		
52	Supports:	Expansion Joint:					
53	Insulation Type/Thk:						
54	External Bolting:						
55	Internal Bolting:						
56	Paint Requirements:						
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58	Other Requirements and Applicable Specifications:						
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