



DEHDASHT PETROCHEMICAL INDUSTRY COMPANY  
DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT



DOCUMENT TITLE: Oil Cooler Data Sheet

POI: IFA

Contract No.: DPIC/98-12

DOCUMENT NUMBER: DPIC9812-000-VD-1002-ME-DS-0078

Rev. No.: D1

All thickness will be finalized after revising comments

DOCUMENT TITLE:

**Oil Cooler Data Sheet  
(E-PK6101-1A/B)**

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PURCHASER'S COMMENT/APPROVAL STATUS					Purchaser: NARGAN
1	AP: Approved (Released for Manufacturing)				Requisition No.: DPIC98-12-001-000-ME-MR-4150-0001-D1
<input checked="" type="checkbox"/>	AN: Approved With Minor Comments (Fabrication may Proceed)				
3	NF: Approved With Comments (Fabrication not Proceed)				Item No. (Tag No.): PK-6101
4	RJ: Rejected				
5	NR: Not be Returned				Vendor Doc. No.: DPIC9812-000-VD-1002-ME-DS-0078-D1
	Date: 11.01.2022	Signature: A.AB			
D1	01.Jan.22	A.VOSOUGH	DR.A.NEJATI	DR.A.NEJATI	
D0	30.Oct.21	A.VOSOUGH	DR.A.NEJATI	DR.A.NEJATI	
REV	DATE ISSUE	PREPARED	CHECKED	APPROVED	



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based on API 614 removable bundle shall be considered

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Please check the Flow rate with PFD-027

based on type of fluid to be specified

disrepancy with thermal data sheet, please clarify

3 as per DWG

Cooling water velocity in carbon steel tubes shall be within 1-3m/s.



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DEHDASHT HIGH DENSITY POLY...

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based on thermal calculation number of Crosspasses "13" have been specified while in sketch of thermal calculation 11 crosspses and 12 baffle have been considered, please clarify and remove discrepancy

please clarify clearly two grooves expand with seal weld

to be specified in thermal datasheet

Based on fluid in shell side(oil is dirty)orientation of tube to be revised

all material shall be normalized

cap material to be specified

please specify type of insulation if any with specification

personnel protection to be considered for shell side

See comment at the oil cooler drawing.

vendor is full responsible for these data

please specify weight with full of liquid

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1		CONSTRUCTION OF COOLER				
2	TUBE TYPE : <input checked="" type="checkbox"/> PLAIN <input type="checkbox"/> FINNED	SHELL OD	406.4	mm	BAFFLE TYPE	Single segmental
3	TUBE OD: 19.05 mm	SHELL ID	381	mm	ORIENTATION	Horizontal
4	TUBE THK (avg): 2.11 mm	MANAGEMENT PROTECTION	NO		BAFFLE NO.	13 #
5	TUBE LENGTH: 3000 mm	TUBESHEET THK	366.309	mm	BAFFLE THK.	4.763 mm
6	TUBE NO: 166 #	TUBE TO TUBESHEET JOINT	46	mm	BAFFLE CUT	30 %
7	PITCH: 24 mm	TUBE TO TUBESHEET WELD TYPE			C/C SPACING	200 mm
8	<input checked="" type="checkbox"/> 30° <input type="checkbox"/> 60°	<input checked="" type="checkbox"/> WELD <input checked="" type="checkbox"/> EXPAND <input type="checkbox"/> GROOVES			INLET SPACING	371.734 mm
9	<input type="checkbox"/> 90° <input type="checkbox"/> 45°	<input type="checkbox"/> SEAL <input checked="" type="checkbox"/> FULL STRENGTH <input type="checkbox"/> PARTIAL STRENGTH			CLEARANCE TO SHELL	3.1750 mm
					CLEARANCE TO TUBE	0.7938 mm
11		MATERIALS				
13	TUBES SA-179	SELL SIDE :			BODY FLANGE :	
	channel cover SA-106 GR	NOZZLES:	SA-106 GRB		SHELL:	SA-266-2
15	CHANNEL SA-106 GRB	FLANGES:	SA-105		CHANNEL:	SA-266-2
16	SHELL COVER SA-516 GR70	TUBE SIDE :			BOLTS	SA 193 Gr. B7
17	TUBE SHEET SA-266-2	NOZZLES:	SA-106 GRB		NUTS	SA 194 Gr. 2H
18	CROSS BAFFLES SA-516 GR70	FLANGES:	SA-105		GASKET	JACKETED METAL
19	SADDEL/LEG SA-283GR.C					
22	INSULATION (TYPE / THK)	SHELL SIDE	-		INLET SIDE	-
23	PAINTING					
24	PRIMER		ZINCETHYL SILICATE (1X70µm)			
25	MID COATING					
26	TOP COATING					
27		MECHANICAL DESIGN DATA				
28	EXPANSION JOINT: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> BY MFR.	MATERIAL:				
29		SHELL 1	SHELL 2	TUBE SHEET	LIFE CYCLES NO.	
30	MEAN SHELL METAL TEMPERATURE °C	61.66	-	-	-	
31	MEAN TUBE METAL TEMPERATURE °C	48.25	-	-	-	
32	MINIMUM TUBE METAL TEMPERATURE °C	40.06	-	-	-	
33	MAXIMUM TUBE METAL TEMPERATURE °C	54.74	-	-	-	
34	WEIGHT	EMPTY: 1439 kg		HYDROTEST: 1840 kg		



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Sheet

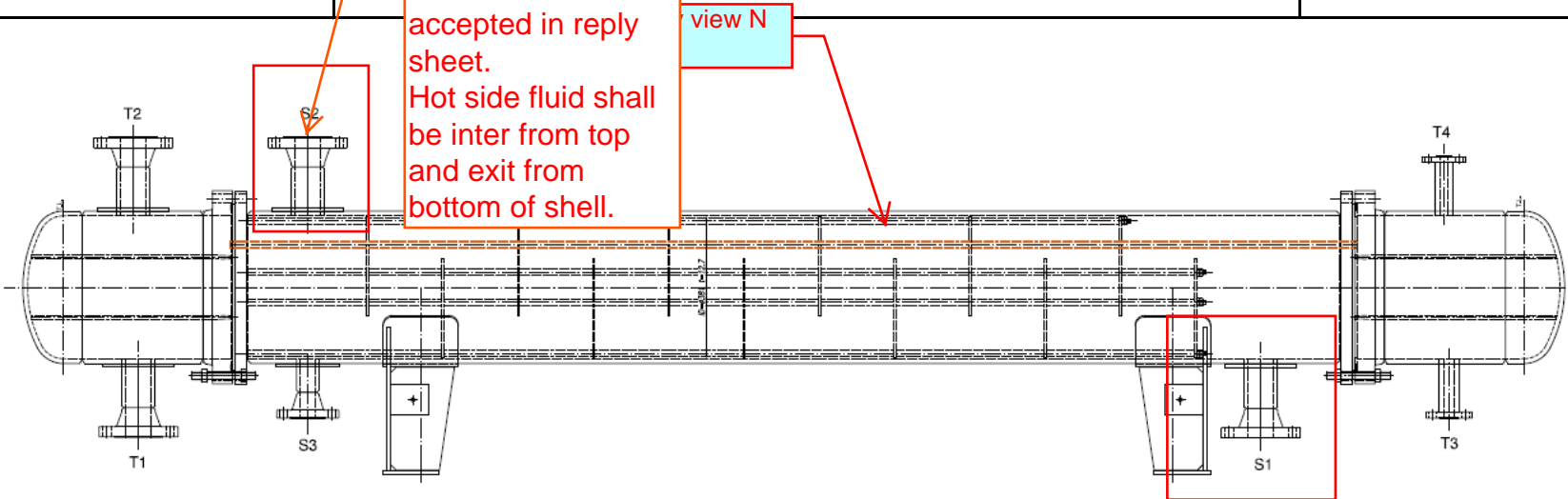
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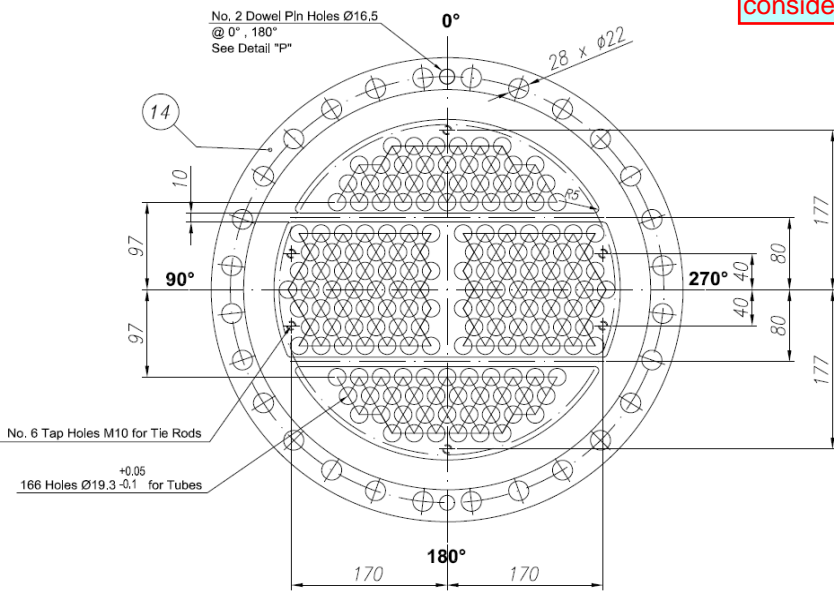
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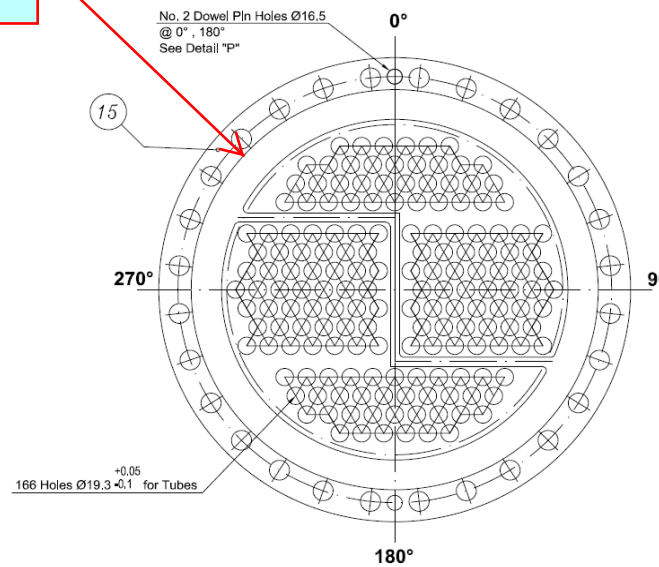
Comment on previous revision is not implemented, however it is accepted in reply sheet.  
Hot side fluid shall be inter from top and exit from bottom of shell.

view N

jack screw to be considered

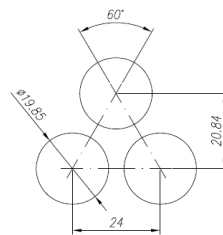


View "M" (1:5)  
Front Tube Sheet



View "N" (1:5)  
Rear Tube Sheet

where view sign?



Tube Holes Arrangement (1:2)  
for Tube Sheet

See comment at the oil cooler drawing.

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S3	1	DRAIN	2"	300#	RF	200
S2	1	OIL OUTLET	3"	300#	RF	200
S1	1	OIL INLET	3"	300#	RF	200
T4	1	VENT	3/4"	300#	RF	200
T3	1	DRAIN	1"	300#	RF	200
T2	1	JACKETED WATER OUTLET	3"	300#	RF	200
T1	1	JACKETED WATER INLET	3"	300#	RF	200
Tag.	No.	Description	Size	Rating	Facing	PROJECTION (mm)