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	DEHDASHT PETROCHEMICAL INDUSTRY COMPANY DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT	
	DOCUMENT TITLE: Condenser Data Sheet	POI: IFA
Contract No.: DPIC/98-12	DOCUMENT NUMBER: DPIC9812-000-VD-1002-ME-DS-0075	Rev. No.: D1

DOCUMENT TITLE:

**Condenser Data Sheet
(E-PK6101-2)**

PURCHASER'S COMMENT/APPROVAL STATUS					Purchaser: NARGAN
1	AP: Approved (Released for Manufacturing)				Requisition No.: DPIC98-12-001-000-ME-MR-4150-0001-D1
2	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-0075-D1
Date:		Signature:			
					
D1	25.Dec.21	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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1	SERVICE	CONDENSER			ITEM	E-PK6101-2			
2	DIAM. X LENGTH	1180	X	5000	mm	MOUNTIN	HORIZONTAL		
3	NO. OF UNIT	1	SURFACE PER UNIT		539.22	m ²	IN PARALLEL	1	
4	SHELLS PER UNIT	1	SURFACE PER SHELL		539.22	m ²	IN SERIES	1	
5	TEMA CLASS	R	REQUIRED OVERDESIGN				CODE	TEMA. 9TH ED.	
6	PERFORMANCE								
7		SHELL SIDE				TUBE SIDE			
8	FLUID CIRCULATED	PROPYLENE				JACKETED WATER			
9	FLUID QUANTITY, TOTAL	27623				289043			
10		IN		OUT		IN		OUT	
11	VAPOUR	27623	-	-	-	-	-	-	
12	LIQUID	-	27623	289043	289043	-	-	-	
13	NON CONDENSABLES	-	-	-	-	-	-	-	
14	TEMPERATURE	80.3	48.33	37	45	-	-	-	
15	DENSITY at T and P (Vap./Liq.)	35.806	467.05	993.59	990.48	-	-	-	
16	VISCOSITY at T and P (Vap./Liq.)	0.0112	0.0668	0.6914	0.596	-	-	-	
17	MOLECULAR WEIGHT	-	-	-	-	-	-	-	
18	SPECIFIC HEAT (Vap./Liq.)	2.2660	/	/	3.2592	4.1773	4.1774	-	
19	THERMAL CONDUCTIVITY (Vap./Liq.)	0.0267	/	/	0.0902	/	0.6252	/	
20		-	-	-	-	-	-	-	
21	INLET PRESSURE (abs)	19.937				6.914			
22	VELOCITY (Mean/Max)	-	/	0.63	-	/	1.01	-	
23	PRESSURE DROP (Allowable/Calculated)	0.1	0.017	0.1	0.267	-	-	-	
24	FOULING RESISTANCE (Min)	0.0002				0.0002			
25	TYPE OF CLEANING MAINTENANCE	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> MECH.	<input type="checkbox"/> CHEM.	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> MECH.	<input type="checkbox"/> CHEM.	-	
26	HEAT EXCHANGED	2682	kW	MTD (CORRECTED)	9.8	°C	-	-	
27	TRANSFER RATE:	SERVICE:	525.1	CALCULATED:	664.93	CLEAN:	955.33	W/m ² -K	
28	CONSTRUCTION								
29	DESIGN PRESSURE	barg	23	23	-	-	-	-	
30	VACUUM PRESSURE	barg	-1.03	-	-	-	-	-	
31	TEST PRESSURE	barg	29.9	29.9	-	-	-	-	
32	DESIGN TEMPERATURE	°C	125	190	-	-	-	-	
33	MIN. DESIGN METAL TEMPERATURE	°C	-	-	-	-	-	-	
34	NUMBER PASSES PER SHELL	1	4	-	-	-	-	-	
35	CORROSION ALLOWANCE	3	3	-	-	-	-	-	
36	PARTICULAR SERVICE	-	-	-	-	-	-	-	
37	PROVIDE X-RAY	FULL	FULL	-	-	-	-	-	
38	PROVIDE STRESS RELIEVING	<input type="checkbox"/> CHANNEL	<input type="checkbox"/> BUNDLE	<input type="checkbox"/> SHELL	-	-	-	-	

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1	CONSTRUCTION OF ONE SHELL					
2	TUBE TYPE : <input checked="" type="checkbox"/> PLAIN <input type="checkbox"/> FINNED	SHELL OD	1210	mm	BAFFLE TYPE	SINGLE SEG.
3	TUBE OD: 19.05 mm	SHELL ID	1180	mm	ORIENTATION	VERTICAL
4	TUBE THK (avg): 2.11 mm	IMPINGEMENT PROTECTION	YES		BAFFLE NO.	9 #
5	TUBE LENGTH: 5000 mm	OUTER TUBE LIMIT	1161.3	mm	BAFFLE THK.	10 mm
6	TUBE NO: 1802 #	TUBESHEET THK	75	mm	BAFFLE CUT	35 %
7	PITCH: 24 mm	TUBE TO TUBESHEET JOINT			C/C SPACING	550 mm
8	<input type="checkbox"/> 30° <input checked="" type="checkbox"/> 60°	<input checked="" type="checkbox"/> WELD <input checked="" type="checkbox"/> EXPAND <input checked="" type="checkbox"/> GROOVES			INLET SPACING	853 mm
9	<input type="checkbox"/> 90° <input type="checkbox"/> 45°	TUBE TO TUBESHEET WELD TYPE			CLEARANCE TO SHELL	6.35 mm
10		<input type="checkbox"/> SEAL <input checked="" type="checkbox"/> FULL STRENGTH			CLEARANCE TO TUBE	0.39 mm
11		<input type="checkbox"/> PARTIAL STRENGTH				
12						
13	MATERIALS					
14	TUBES	SA-334 GR 6 SEAMLESS	SELL SIDE :		BODY FLANGE :	
15	SHELL	SA-516 GR70N	NOZZLES:	SA-333 GR6	SHELL:	SA-350 LF2
16	CHANNEL	SA-516 GR70	FLANGES:	SA-350 LF2	CHANNEL:	SA-350 LF2
17	SHELL COVER	SA-516 GR70	TUBE SIDE :		BOLTS	SA-320 L7
18	TUBE SHEET	SA-350 LF2	NOZZLES:	SA-333 GR6	NUTS	SA 194 Gr. 4
19	CROSS BAFFLES	SA-516 GR70N	FLANGES:	SA-350 LF2	GASKET	JACKETED METAL
20	SADDEL/LEG	SA-283GR.C				
21						
22	INSULATION AND PAINTING					
23		SHELL SIDE			CHANNEL SIDE	
24	INSULATION (TYPE / THK)	-			-	
25	PAINTING					
26	PRIMER	ZINCETHYL SILICATE (1X70µm)				
27	MID COATING					
28	TOP COATING					
29	MECHANICAL DESIGN DATA					
30	EXPANSION JOINT: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> BY MFR.	MATERIAL:				
31		SHELL 1	SHELL 2	TUBE SHEET	LIFE CYCLES NO	
32	MEAN SHELL METAL TEMPERATURE °C	53.80	-	-	-	
33	MEAN TUBE METAL TEMPERATURE °C	44.62	-	-	-	
34	MINIMUM TUBE METAL TEMPERATURE °C	42.50	-	-	-	
35	MAXIMUM TUBE METAL TEMPERATURE °C	46.74	-	-	-	
36	WEIGHT	EMPTY: 14695 kg		HYDROTEST: 20783 kg		

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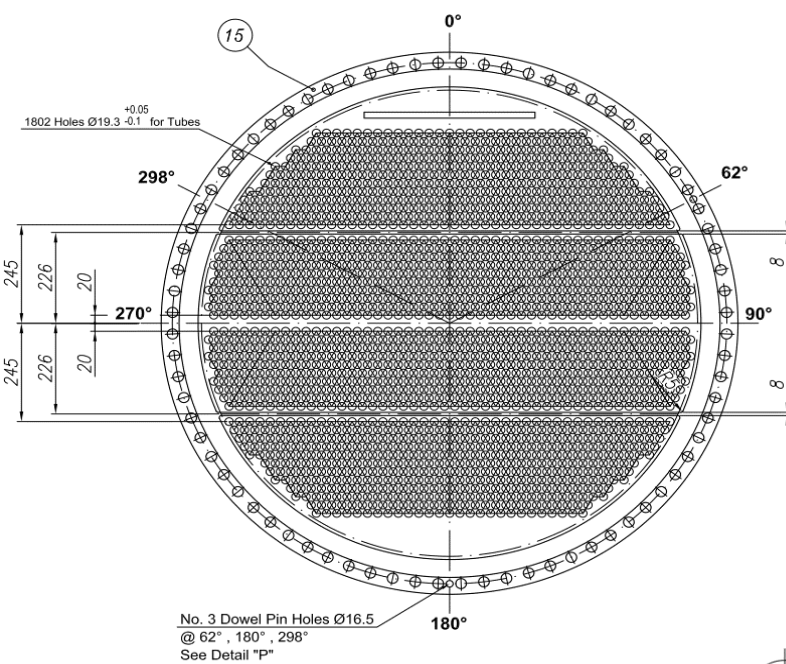
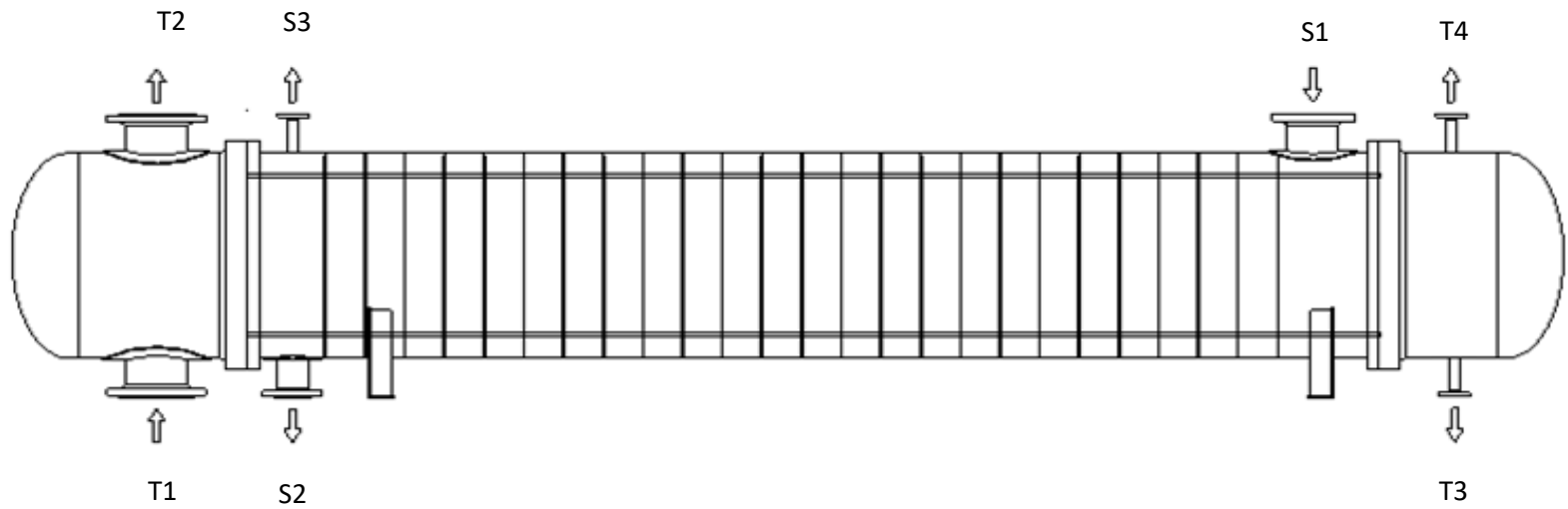
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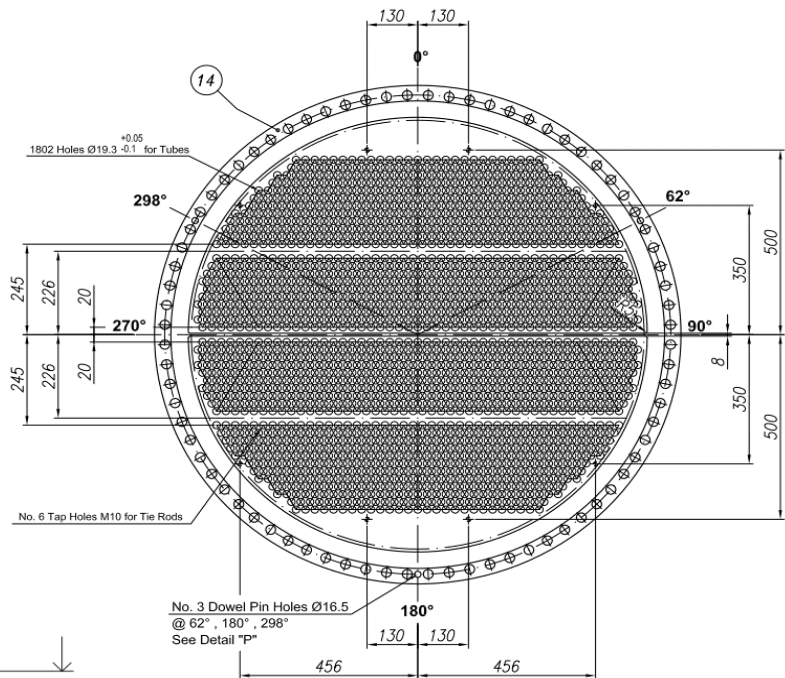
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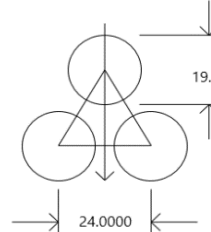
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View "N" (1:10)
Rear Tube Sheet



View "M" (1:10)
Front Tube Sheet



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S3	1	EQUILIZE LINE	2"	300#	RF	200
S2	1	PROPYLENE OUTLET	8"	300#	RF	200
S1	1	PROPYLENE INLET	12"	300#	RF	200
T4	1	VENT	3/4"	300#	RF	200
T3	1	DRAIN	1"	300#	RF	200
T2	1	COOLING WATER OUT	12"	300#	RF	200
T1	1	COOLING WATER IN	12"	300#	RF	200
Tag.	No.	Description	Size	Rating	Facing	PROJECTION (mm)