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 	<b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b>  <b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>	
	DOCUMENT TITLE: Condenser Data Sheet	POI: IFA
Contract No.: DPIC/98-12	DOCUMENT NUMBER: DPIC9812-000-VD-1002-ME-DS-0075	Rev. No.: D2

**DOCUMENT TITLE:**

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

<b>PURCHASER'S COMMENT/APPROVAL STATUS</b>					Purchaser: NARGAN
1	AP: Approved (Released for Manufacturing)				Requisition No.: DPIC98-12-001-000-ME-MR-4150-0001-D2
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:			
					
D2	21.Jan.22	A.VOSOUGH	DR.A.NEJATI	DR.A.NEJATI	
D1	25.Dec.21	A.VOSOUGH	DR.A.NEJATI	DR.A.NEJATI	
D0	30.Oct.21	A.VOSOUGH	DR.A.NEJATI	DR.A.NEJATI	
<b>REV</b>	<b>DATE ISSUE</b>	<b>PREPARED</b>	<b>CHECKED</b>	<b>APPROVED</b>	



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Page	Rev-D0	Rev-D1	Rev-D2	Rev-D3	Rev-D4
1	x	x	x		
2	x	x	x		
3	x	x	x		
4	x	x	x		
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Page	Rev-D0	Rev-D1	Rev-D2	Rev-D3	Rev-D4
36					
37					
38					
39					
40					
41					
42					
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44					
45					
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1	SERVICE	<b>CONDENSER</b>			ITEM	<b>E-PK6101-2</b>	
2	DIAM. X LENGTH	<b>1180</b> X <b>5000</b> mm	MOUNTIN	<b>HORIZONTAL</b>		TYPE	<b>BEM</b>
3	NO. OF UNIT	<b>1</b>	SURFACE PER UNIT	<b>521.12</b> m <sup>2</sup>	IN PARALLEL	<b>1</b>	
4	SHELLS PER UNIT	<b>1</b>	SURFACE PER SHELL	<b>521.12</b> m <sup>2</sup>	IN SERIES	<b>1</b>	
5	TEMA CLASS	<b>R</b>	REQUIRED OVERDESIGN			CODE	<b>TEMA. 9TH ED.</b>
6	<b>PERFORMANCE</b>						
7				SHELL SIDE		TUBE SIDE	
8	FLUID CIRCULATED	<b>PROPYLENE</b>			<b>JACKETED WATER</b>		
9	FLUID QUANTITY, TOTAL	kg/h	<b>26500</b>			<b>289043</b>	
10			IN	OUT	IN	OUT	
11	VAPOUR	kg/h	<b>26500</b>	-	-	-	
12	LIQUID	kg/h	-	<b>26500</b>	<b>289043</b>	<b>289043</b>	
13	NON CONDENSABLES	kg/h	-	-	-	-	
14	TEMPERATURE	°C	<b>80.3</b>	<b>48.4</b>	<b>37</b>	<b>45</b>	
15	DENSITY at T and P (Vap./Liq.)	kg/m <sup>3</sup>	<b>35.722</b>	<b>466.87</b>	<b>993.59</b>	<b>990.48</b>	
16	VISCOSITY at T and P (Vap./Liq.)	cP	<b>0.0111</b>	<b>0.0668</b>	<b>0.6914</b>	<b>0.596</b>	
17	MOLECULAR WEIGHT						
18	SPECIFIC HEAT (Vap./Liq.)	kJ/kg.C	<b>2.2667</b>	<b>3.2608</b>	<b>4.1773</b>	<b>4.1774</b>	
19	THERMAL CONDUCTIVITY (Vap./Liq.)	W/m.K	<b>0.0267</b>	<b>0.0902</b>	<b>0.6252</b>	<b>0.6352</b>	
20							
21	INLET PRESSURE (abs)	bar	<b>19.900</b>			<b>6.914</b>	
22	VELOCITY (Mean/Max)	m/s	/ <b>0.59</b>			/ <b>1.01</b>	
23	PRESSURE DROP (Allowable/Calculated)	bar	<b>0.1</b>	<b>0.018</b>	<b>0.1</b>	<b>0.267</b>	
24	FOULING RESISTANCE (Min)	m <sup>2</sup> -K/W	<b>0.00017</b>			<b>0.0002</b>	
25	TYPE OF CLEANING MAINTENANCE		<input checked="" type="checkbox"/> NONE <input type="checkbox"/> MECH. <input type="checkbox"/> CHEM.			<input type="checkbox"/> NONE <input type="checkbox"/> MECH. <input type="checkbox"/> CHEM.	
26	HEAT EXCHANGED	kw	<b>2627</b>	MTD (CORRECTED)	<b>9.7</b>	°C	
27	TRANSFER RATE:	SERVICE:	<b>529.86</b>	CALCULATED:	<b>678.11</b>	CLEAN:	<b>954.6</b> W/m <sup>2</sup> -K
28	<b>CONSTRUCTION</b>						
29	DESIGN PRESSURE	barg	<b>23</b>			<b>23</b>	
30	VACUUM PRESSURE	barg	<b>-1.03</b>			<b>-</b>	
31	TEST PRESSURE	barg	<b>29.9</b>			<b>29.9</b>	
32	DESIGN TEMPERATURE	°C	<b>135</b>			<b>190</b>	
33	MIN. DESIGN METAL TEMPERATURE	°C	<b>-45.0</b>			<b>-</b>	
34	NUMBER PASSES PER SHELL		<b>1</b>			<b>4</b>	
35	CORROSION ALLOWANCE		<b>3</b>			<b>3</b>	
36	PARTICULAR SERVICE		<b>-</b>			<b>-</b>	
37	PROVIDE X-RAY		<b>FULL</b>			<b>FULL</b>	
38	PROVIDE STRESS RELIEVING		<input type="checkbox"/> CHANNEL <input type="checkbox"/> BUNDLE			<input type="checkbox"/> SHELL	



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1	<b>CONSTRUCTION OF ONE SHELL</b>					
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.	8 #
5	TUBE LENGTH: 5000 mm	OUTER TUBE LIMIT	1161.3	mm	BAFFLE THK.	8 mm
6	TUBE NO: 1802 #	TUBESHEET THK	75	mm	BAFFLE CUT	35 %
7	PITCH: 24 mm	TUBE TO TUBESHEET JOINT			C/C SPACING	500 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	854 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	<b>MATERIALS</b>					
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	<b>INSULATION AND PAINTING</b>					
23		SHELL SIDE			CHANNEL SIDE	
24	INSULATION (TYPE / THK)	-			-	
25	PAINTING					
26	PRIMER	ZINCETHYL SILICATE (1X70µm)				
27	MID COATING					
28	TOP COATING					
29	<b>MECHANICAL DESIGN DATA</b>					
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	53.84	-	-	-	
33	MEAN TUBE METAL TEMPERATURE °C	44.71	-	-	-	
34	MINIMUM TUBE METAL TEMPERATURE °C	42.69	-	-	-	
35	MAXIMUM TUBE METAL TEMPERATURE °C	46.73	-	-	-	
36	WEIGHT	EMPTY: 14695 kg		HYDROTEST: 20783 kg		

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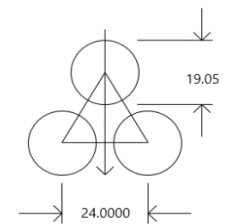
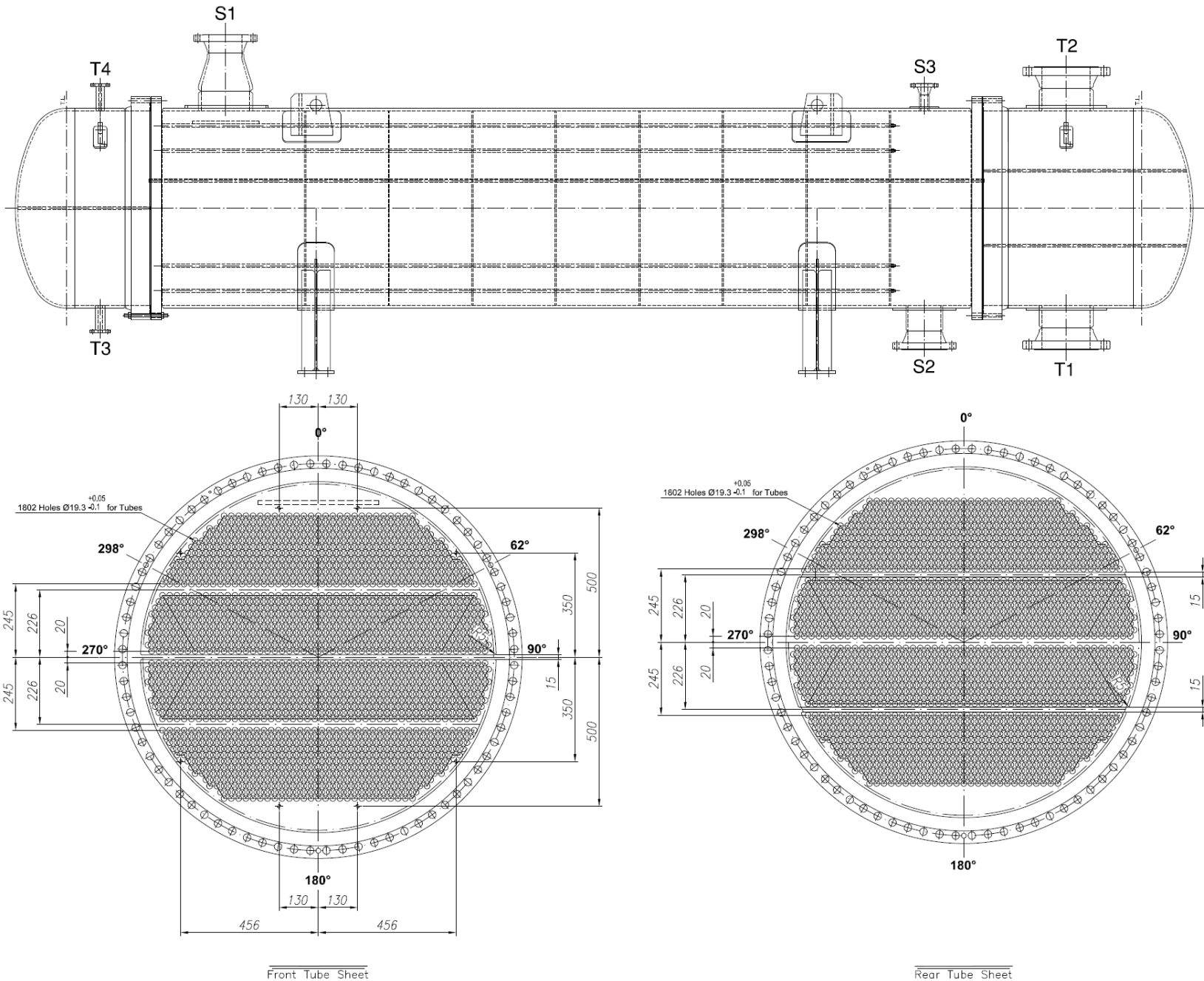
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S3	1	EQUILIZE LINE	2"	300#	RF	200
S2	1	PROPYLENE OUTLET	8"	300#	RF	200
S1	1	PROPYLENE INLET	12"	300#	RF	200
T4	1	VENT	3/4"	300#	RF	200
T3	1	DRAIN	1"	300#	RF	200
T2	1	COOLING WATER OUT	12"	300#	RF	200
T1	1	COOLING WATER IN	12"	300#	RF	200
Tag.	No.	Description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