



**DEHDASHT PETROCHEMICAL INDUSTRY COMPANY**  
**DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT**



<b>Contract No.: DPIC/98-12</b>	<b>DOCUMENT TITLE: Oil Pump Data Sheet</b>	<b>POI: IFA</b>	<b>Rev.: D1</b>
	<b>DOCUMENT No: DPIC9812-000-VD-1002-ME-DS-0079</b>	<b>Sheet 1 of 7</b>	

# Oil Pump Data Sheet




**PURCHASER'S COMMENT/APPROVAL STATUS**

Purchaser: NARGAN

<input checked="" type="checkbox"/>	AP: Approved (Released for Manufacturing)	
2	AN: Approved With Minor Comments (Fabrication may Proceed)	Requisition No.: DPIC98-12-001-000-ME-MR-4150-0001-D1
3	NF: Approved With Comments (Fabrication not Proceed)	
4	RJ: Rejected	Item No. (Tag No.): PK-6101
5	11.03.2024 rned A.AB	
Date:	Signature:	Vendor Doc. No.: DPIC9812-000-VD-1002-ME-DS-0079



D1	17-Feb-24	IFA	M.R	M.M	A.V
D0	02-Jan-22	IFA	M.R	M.M	A.V
<b>REV.</b>	<b>DATE ISSUE</b>	<b>Purpose of Issue</b>	<b>PREPARED</b>	<b>CHECKED</b>	<b>APPROVED</b>

 	<b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b>  <b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>		
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	<b>DOCUMENT No: DPIC9812-000-VD-1002-ME-DS-0079</b>	<b>Sheet 2 of 7</b>	

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# VENDOR

VENDOR Document No.:

NO	BY	APP	DATE	DESCRIPTION
0	M	E	12/16/2021	For Quotation/ Approval
1	M	E	2/17/2024	Updated per Client Comments

## OIL PUMP DATA SHEET

FOR	DEHDASHT PETROCHEMICAL COMPANY		MFR	KASRAVAND
PROJECT	HDPE	ITEM: P-PK6101-1A/B,2A/B	UNIT TAG No.	P-1A/2A & P-2A/2B &
P.O No.	N/A		SERIAL No.	TBA
SITE	Iran		No. REQUIRED	4
SERVICE	PROPANE REFRIGERATION PACKAGE		MODEL No.	M80P-4PM

### GENERAL

1				
2	NO. MOTOR DRIVES***	2	OTHER DRIVE TYPE***	
3	PUMP TAG NO'S***	P-1A/2A & P-2A/2B	PUMP TAG NO'S***	
4	MOTOR TAG NO'S***	PM-1A/2A & PM-2A/2B	DRIVER TAG NO'S***	GEAR ITEM NO'S***
5	MOTOR PROVIDED BY*	VENDOR	DRIVER PROVIDED BY*	GEAR PROVIDED BY*
6	MOTOR MOUNTED BY*	VENDOR	DRIVER MOUNTED BY*	GEAR MOUNTED BY*
7	MOTOR DATA SHEET *		DRIVER DATA SHEET NO.*	GEAR DATA SHEET NO.*

### OPERATING CONDITIONS\*

9	CAPACITY @ PT	63.4 (GPM):	240.0 lpm
10	@ MAXIMUM VISCOSITY	190 cp	@ MIN. VISCOSITY 9.5 cp
11	DISCHARGE PRESSURE	PSIG: BarG	
12	MAXIMUM	392 27.0	NORMAL 336 23.1
13	SUCTION PRESSURE	PSIG: BarG	
14	MAXIMUM	316.8 21.9	NORMAL 275.5 19
15	DIFFERENTIAL PRESSURE	PSIG: BarG	
16	MAXIMUM	75.0 5.2	NORMAL; 55.0 3.8
17	NPSH AVAILABLE (FT.):	674	51 m
18	HYDRAULIC HP		

### LIQUID\*

9	TYPE OR NAME OF LIQUID	LUBE OIL WITH PROPELYNE Refrigerant			
10	PUMPING TEMPERATURE	°F:	°C		
11	NORMAL	176.0 80.0	MAX 190 88	MIN 70	21.111 **
12	SPECIFIC GRAVITY	0.95	MAXIMUM	MINIMUM	
13	SPECIFIC HEAT	0.52 (Btu/lb-ft)	2.1771 (kJ/kg °C)		
14	VISCOSITY (Cp)	14.25	NORMAL 190	MAX. 9.5	MIN. **
15	CORROSIVE/EROSIVE AGENTS***				
16	CHLORIDE CONCENTRATION (PPM)***				
17	H <sub>2</sub> S CONCENTRATION (PPM)***				
18	LIQUID --- TOXIC --- FLAMMABLE		OTHER		

\*\* Per pages for viscosity where 20C is the lowest operating start temperature

### PERFORMANCE\*\*

21	RATED CAPACITY (GPM):	89.8 340.0 lpm
22	NPSH REQUIRED (FT.):	10 3.0 m
23	RATED SPEED (RPM):	1,450
24	DISPLACEMENT (GPM):	89.8 340.0 lpm
25	VOLUMETRIC EFFICIENCY (%)	
26	MECHANICAL EFFICIENCY (%)	---
27	BPower @ MAXIMUM VISCOSITY	6.66 hp 5.0 kw
28	BPower @ RELIEF VALVE SETTING	9.92 hp 7.4 kw
29	MAXIMUM ALLOWABLE SPEED (RPM)	
30	MINIMUM ALLOWABLE SPEED (RPM)	

### SITE AND UTILITY DATA\*\*\*

21	LOCATION:	INDOOR	X	OUTDOOR
22	HEATED	X	UNHEATED	UNDER ROOF
23	ELECTRICAL AREA CLASS	1	GROUP	C & D DIV DIV 2
24	WINTERIZATION REQD		X	TROPICALIZATION REQD
25	SITE DATA			
26	AMBIENT TEMPS: MIN / MAX	** 113 45 / 23 -5.0	°F °C	
27	UNUSUAL CONDITIONS			
28	X DUST	FUMES	SALT ATMOSPHERE	
29	X OTHER	TROPICAL, SALINE MARINE, HIGH HUMIDITY		
30	UTILITY CONDITIONS			

### CONSTRUCTION\*\*

	SIZE	ANSI RATING	FACING	POSITION
32	CONNECTIONS			
34	SUCTION	100A	JIS STD	SIDE STD Casing***
35	DISCHARGE	100A	JIS STD	SIDE STD Casing***
36	GLAND FLUSH			
37	DRAINS			
38	VENTS			
39	JACKET			
40	PUMP TYPE:	*** Reduced mating flanged shall be used		
41	INTRN'L GEAR	X TWIN-SCREW	VANE	
42	EXTRN'L GEAR	3-SCREW	PROGRESSING CAVITY	
43	GEAR TYPE	N/A		
44	SPUR	HELICAL		
45	OTHER			

	DRIVERS	HEATING	CONTROL	SHUTDOWN
32	ELECTRICITY			
33	VOLTAGE	400		
34	HERTZ	50		
35	PHASE	3		
36	COOLING WATER	N/A	INLET	RETURN
37	TEMP °F		MAX	
38	PRESS. (PSIG):		MIN	
39	SOURCE			
40	INSTRUMENT AIR	N/A	MAX	MIN
41	PRESSURE (PSIG)			

### APPLICABLE SPECIFICATIONS\*\*\*:

API 676 POSITIVE DISPLACEMENT PUMPS - ROTARY	YES
GOVERNING SPECIFICATION (IF DIFFERENT)	

REMARKS:



DEHDASHT PETROCHEMICAL INDUSTRY COMPANY



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P.O No.	HDPE ITEM: P-PK6101-1A/B,2A/B	UNIT TAG No.	P-1A/2A & P-2A/2B &
SITE	N/A	SERIAL No.	TBA
SERVICE	Iran	No. REQUIRED	4
	PROPANE REFRIGERATION PACKAGE	MODEL No.	M80P-4PM

CONSTRUCTION (CONTINUED)**			
2	CASING		
3	MAX. ALLOWABLE PRESSURE:	400 PSIG	27.6 barG
4	HYDROSTATIC TEST PRESSURE:	520 PSIG	35.9 barG
5	STEAM JACKET PRESSURE:	PSIG	barG
6	ROTOR MOUNT	BTWN. BEARINGS	OVERHUNG
7	TIMING GEARS	YES	NO X
8	BEARING TYPE:	RADIAL SLEEVE	THRUST SLEEVE
9	LUBRICATION TYPE:	CONSTANT LEVEL OILERS	
10	X PUMPED FLUID	RING OIL	OIL MIST
11	EXTERNAL	OIL FLOOD	GREASE
12	LUBRICANT TYPE	SELF LUBRICATED	
13	MECHANICAL SEALS		
14	MANUFACTURER AND MODEL	MAYEKAWA STD	
15	MANUFACTURER CODE	Part	DM01400-080T
16	API 610 SEAL FLUSH PLAN	N/A	
17	API 610 SEAL CODE		
18	PACKING:	N/A	LANTERN RING
19	MFR. AND TYPE	NO. OF RINGS	
20	DRIVE MECHANISM		
21	X DIRECT-COUPLED	V-BELT	GEAR
22	COUPLING MANUFACTURER		
23	DRIVERS		
24	MOTOR:		
25	MANUFACTURER	TO BE DETERMINED	
26	TYPE	TEFC	
27	FRAME NO.	215T	
28	CONSTANT SPEED	1,450	
29	VARIABLE SPEED	N/A	
30	HP kW	7.5 Kw 22.4	RPM 1,450
31	VOLTS	400	PHASE 3
32	HERTZ	50	SERVICE FACTOR 1.15
33	ENCLOSURE	TEFC	TEFC
34	STEAM TURBINE		
35	OTHER (SEE SEPARATE DATA SHEETS)		
36	OTHER PURCHASER REQUIREMENTS*		
37	NAMEPLATE UNITS	U.S. CUSTOMARY	SI X
38	RELIEF VALVES BY PUMP MFRG	INTERNAL	X EXTRNL.
39	PIPING FOR SEAL FLUSH FURNISHED BY:	PUMP VENDOR OTHERS PER BUYER P&ID	
40	PIPING FOR COOLING/HEATING FURNISHED BY:	N/A	
41	PUMP VENDOR	OTHERS	
42	PROVIDE TECHNICAL DATA MANUAL		
43	REMARKS		
44			
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MATERIALS**			
CASING	CAST IRON	JIS G 5501 FC300	(ASTM A48)
STATOR	N/A		
END PLATES	CAST IRON	JIS G 5501 FC300	(ASTM A48)
ROTOR (S)	DUCTILE IRON	JIS G 5502 FCD600	(ASTM A536)
VANES	N/A		
SHAFT	PART OF ROTOR		
SLEEVE (S)			
GLAND (S)			
BEARING HOUSING	CAST IRON	JIS G 5501 FC300	(ASTM A48)
TIMING GEARS	N/A		
SPECIAL MATERIAL TESTS (2.9.1.3)			
LOW AMBIENT TEMP. MATERIALS TESTS (2.9.5)			
QA INSPECTION AND TEST * & ***			
X	COMPLIANCE WITH INSPECTORS CHECK LIST		
	CERTIFICATION OF MATERIALS	Required per MFR.'s StD	
	FINAL ASSEMBLY CLEARANCES		
	SURFACE AND SUBSURFACE EXAMINATIONS		
	RADIOGRAPHY		
	ULTRASONIC		
	MAGNETIC PARTICLE		
	LIQUID PENETRANT		
X	CLEANLINESS PRIOR TO FINAL ASSEMBLY		
	HARDNESS OF PARTS, WELDS & HEAT AFFECTED ZONES		
	FURNISH PROCEDURES FOR OPTIONAL TESTS		
TESTS	REQ'D	WIT	OBS
HYDROSTATIC	MFR STD		
MECHANICAL RUN	MFR STD		
PERFORMANCE	MFR STD		
NPSH	---		
PREPARATION FOR SHIPMENT*			
DOMESTIC	EXPORT	X	EXPORT BOXING REQ'D
OUTDOOR STORAGE MORE THAN 6 MONTHS			X
WEIGHTS (LBS)**			
PUMP	594	BASE	N/A GEAR N/A DRIVER 260
BASEPLATE*			
BY PUMP MANUFACTURER	BY BUYER		
EXTENDED FOR			
SUBSOLE PLATES BY PUMP MANUFACTURER			
DRAIN-RIM	DRAIN-PAN		

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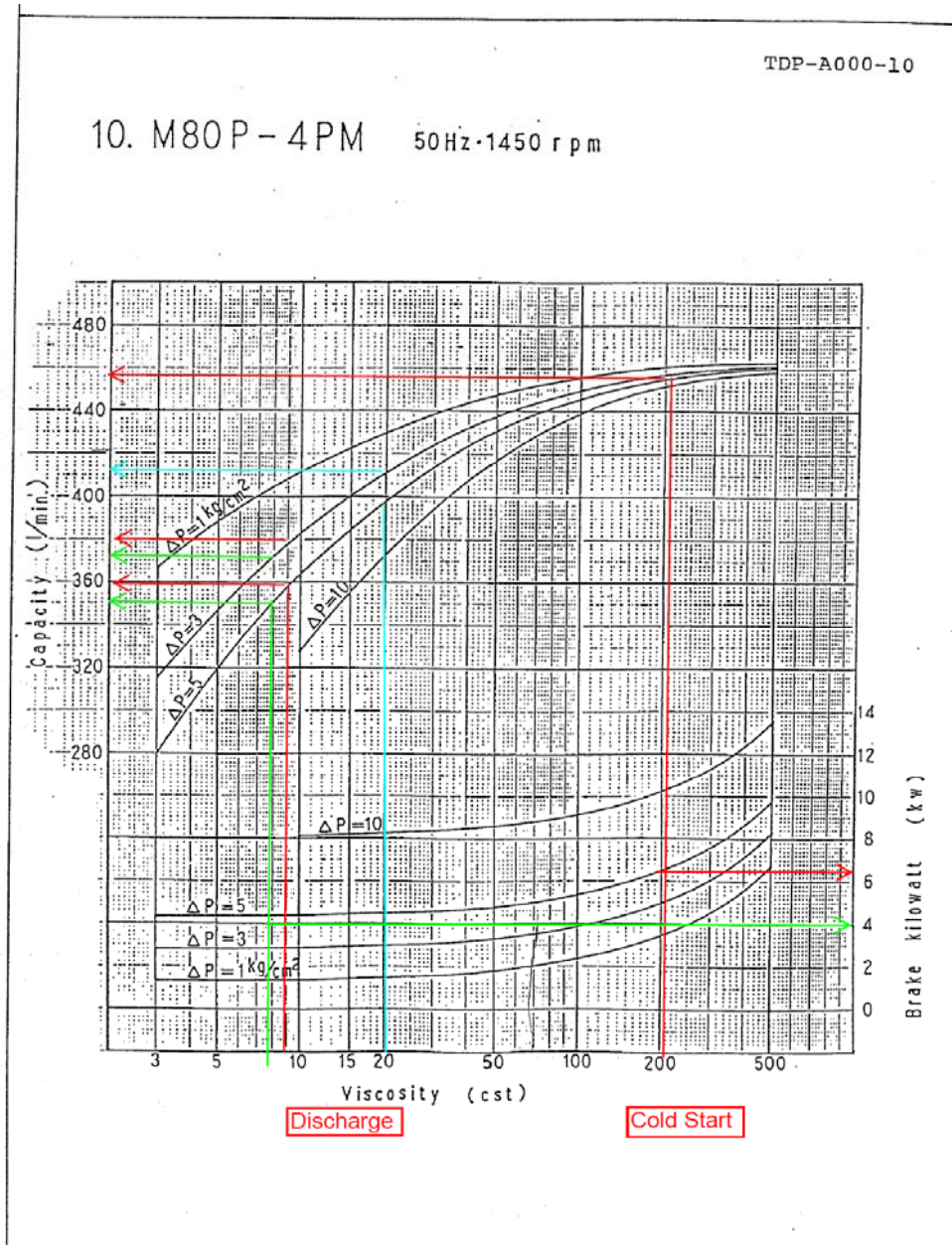
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SITE	N/A	SERIAL No.	TBA
SERVICE	Iran	No. REQUIRED	4
	PROPANE REFRIGERATION PACKAGE	MODEL No.	M80P-4PM

PUMP PERFORMANCE CURVE



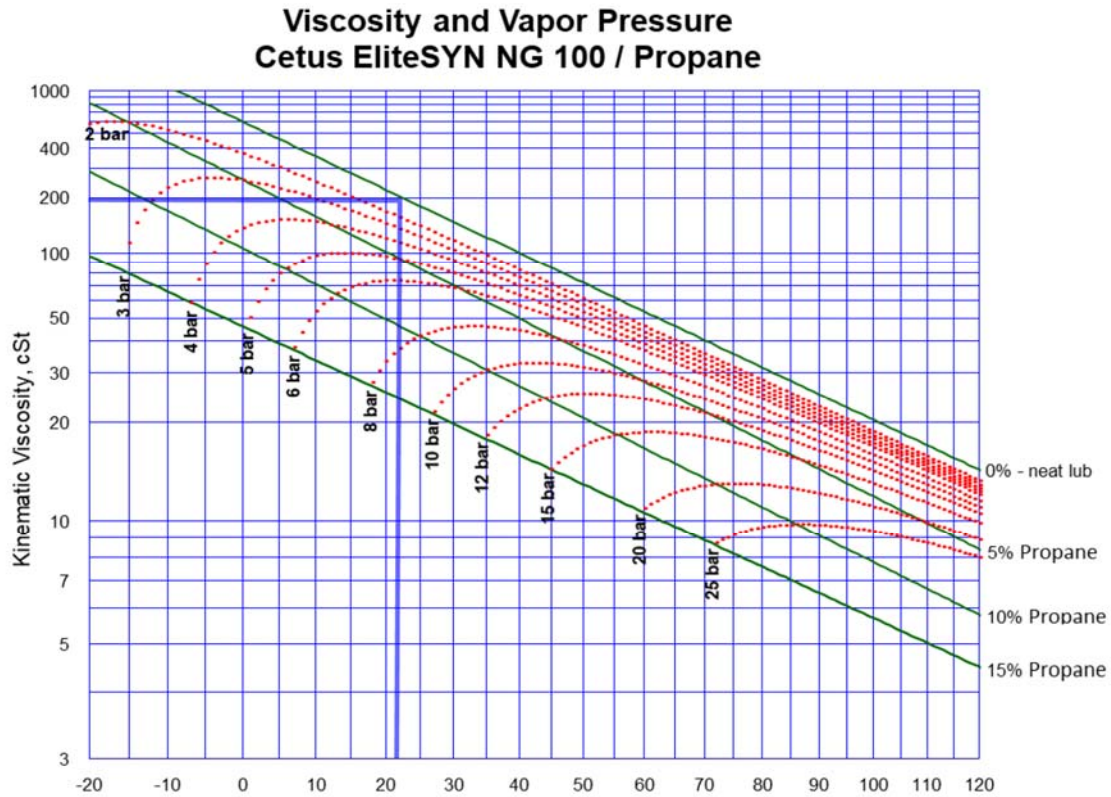
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P.O No.	N/A	SERIAL No.	TBA
SITE	Iran	No. REQUIRED	4
SERVICE	PROPANE REFRIGERATION PACKAGE	MODEL No.	M80P-4PM

Oil Viscosity Chart



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DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT



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PROJECT	<b>HDPE</b>	ITEM: <b>P-PK6101-1A/B,2A/B</b>	UNIT TAG No.	<b>P-1A/2A &amp; P-2A/2B &amp;</b>
P.O No.	<b>N/A</b>		SERIAL No.	<b>TBA</b>
SITE	<b>Iran</b>		No. REQUIRED	<b>4</b>
SERVICE	<b>PROPANE REFRIGERATION PACKAGE</b>		MODEL No.	<b>M80P-4PM</b>

Oil Viscosity Chart

**6.2.3 M80P**

Table 6-3 Parts list for M80P

No.	Part Name	Part No.	Q'ty	Remarks
3	Drive rotor	-	1	
4	Idle rotor	-	1	
-	Gear assembly	DM00300-MM080	1 set	CW
5	Gear casing	DM00500-080	1	
6	Seal cover	DM00600-080	1	
7	Bearing cover	DM00700-080	1	
8	Seal holder	DM00800-080	1	
9-1	Drive shaft bearing	DM0099-A08	1 set	AJ1, 2 pcs.
9-2	Idle shaft bearing	DM0099-A08	1 set	AJ1, 2 pcs.
14	Mechanical seal assembly	DM01400-080T	1 set	
16	O-ring	PA12-155	2	JISB2401 G155
21	Key	DM02100-5	1	8 × 7 × 50, Rounded at one end
22	Hexagon socket head cap screw	NB35412-050	16	M12 × 50
23	Hexagon socket head cap screw	NB35406-020	6	M6 × 20
24	Relief valve unit	DM02400-080	1	
25	Relief valve unit flange	DM02500-080	1	
26	Piston	DM02600-080	1	
27	Adjusting bolt	DM02700-080	1	
28	Spring guide	DM02800-080	1	
29	Spring	DM02900-080	1	
30	Thrust needle bearing assembly	DM03009-080	1 set	
31	Hexagon nut	NC320-16	1	M16, 3 types
32	Domed cap nut	NC921-16	1	M16, 3 shapes
33	Locking pin	NE3204-010	1	φ 4 × 10
34	Relief valve unit gasket	DM03410-080	1	
35	O-ring	PA12-070	1	JISB2401 G70
36	O-ring	PA11-014	1	JISB2401 P14
37	Hexagon socket head cap screw	NB35412-040	8	M12 × 40
37	Hexagon socket head cap screw	NB35410-035	6	M10 × 35
38	Flange	DM03800-100B	2	JIS20K 100A BL
39	Hexagon head bolt	-	16	M20 × 60
41	Flange gasket	PL021-100	2	JIS20K 100A RF
49	Spring pin	NE3206-030	1	φ 6 × 30, For drain

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