



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

۰۵۳-۰۷۳-۹۱۸۴

MECHANICAL DATA SHEETS FOR SLUG PUMPS

نسخه	سریال	نوع مدرک	رشته	تهیهات	صادر کننده	بسته کاری	پروژه
D05	0019	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: ۱ از ۱۰

طرح نگهداشت و افزایش تولید ۲۷ مخزن

## MECHANICAL DATA SHEETS FOR SLUG PUMPS

نگهداشت و افزایش تولید میدان نفتی بینک

D05	NOV.2024	AFC	V.Amjadi	M. Fakharian	M.Sadeghian	
D04	JUL.2024	AFC	V.Amjadi	M. Fakharian	M.Sadeghian	
D03	MAY.2024	AFC	H. Adineh	M. Fakharian	M. Mehrshad	
D02	DEC. 2022	IFA	H. Adineh	M. Fakharian	M. Mehrshad	
D01	JAN. 2022	IFA	H. Adineh	M. Fakharian	M. Mehrshad	
D00	DEC. 2021	IFC	H. Adineh	M. Fakharian	M. Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 1 CLIENT Doc. Number: F0Z-708850

status:

IDC: Inter-Discipline Check

IFC: Issued For Comment

IFA: Issued For Approval

AFD: Approved For Design

AFC: Approved For Construction

AFP: Approved For Purchase

AFQ: Approved For Quotation

IFI: Issued For Information

AB-R: As-Built for CLIENT Review

AB-A: As-Built -Approved



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شماره پیمان:

۰۵۳-۰۷۳-۹۱۸۴

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D05	0019	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: ۲ از ۱۰

REVISION RECORD SHEET

page	D00	D01	D02	D03	D04	D05
1	x	x	x	x	x	x
2	x	x	x	x	x	x
3	x	x	x			
4	x					
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6	x	x	x		x	
7	x				x	
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نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

۰۵۳-۰۷۳-۹۱۸۴

## MECHANICAL DATA SHEETS FOR SLUG PUMPS

نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	بسته کاری	پروژه
D05	0019	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: ۳ از ۱۰

## General Notes

- Mass Density [kg/m<sup>3</sup>] at Max. / Norm /Min. Temp: 1023 / 716 / 649 and Viscosity [cP] At Max. / Normal / Min. Temp: 1.37 / 0.58 / 0.449
- Design Conditions:
 

<u>Min./Max. Design Temperature(°C)</u>	<u>Max. Design Pressure(barg)</u>
5 / 85	23.3
- For technical requirements of electrical lv motors refer to " Data sheets for lv induction motors; DOC NO.:BK-GCS-PEDCO-120-EL-DT-0008", Vendor shall fill in the blanks and return the completed data sheet along with Motor data sheet, "DOC NO.:BK-GCS-PEDCO-120-EL-DT-0008" with his proposal.
- Vendor shall submit ITP (Inspection & Testing Plan) with his proposal.
- The motors, pump mechanical seal, pump coupling and pump accessories shall be supplied from the project's approved vendor list (A.V.L.).
- Vendor is requested to confirm the material, or propose appropriate alternative.
- For Instrumentation, Project specification 'Specification For Instrument and Control of package Unit System (PU)' Doc. No. BK-GNRAL-PEDCO-000-IN-SP-0004 and other instrument specification which to be attached to MR shall be followed.
- Mechanical seal data sheet shall fill in by vendor as per API 682. Pump Manufacturer shall supply all instrumentation for mechanical seals as per API 682 4th Edition and project requirements.
- NPSH test shall be done & witnessed if the margin of NPSHr & NPSHa is less than 1.
- The Tie-in flanges shall conform to ASME B-16.5
- Valves in the piping system shall be Welded Flanged type.
- Supplier to indicate which minimum flow pumps can achieve.
- Pumps shall be designed, fabricated, tested, and inspected in accordance with the requirements of API 610 11th & IPS-G-PM-105(3).
- Nozzle loads shall be 2 times the loads shown in API 610 11th Edition.
- Pump starts Automatically with open delivery valve.
- Electrical motor shall be rated for the end of curve.
- The Suction line size is 4" and discharge line size is 3".
- The Material shall be followed in accordance with NACE MR0175/ISO15156 and Technical Specification for Material Requirements in sour service. Doc.No: BK-GNRAL-PEDCO-000-PI-SP-0008.
- H<sub>2</sub>S content is 6707.6 ppmw.
- Pump Manufacturer shall supply all instrumentation for mechanical seals as per API 682 4th Edition and project requirements.
- Based on project instrumentation specification, these equipments are classified as Type B (Connected to DCS/ESD):  
Centrifugal Pump Package.
- Welding repair procedures shall be submitted for approval.
- Refer to hazardous area classification layout Doc. No.: BK-GCS-PEDCO-120-SA-PY-0002 , all instrumentation and electrical devices shall be suitable for: ZONE 2 & Gas group IIA, Temperature class T3.
- Ultrasonic Test shall be performed for forged shaft.
- For pumps with vacuum suction pressure the minimum NPSH margin shall be 2 m. for other pumps the minimum NPSH margin shall be 1 m.
- Spare parts shall be supplied by vendor according to 'MR's appendix for Centrifugal Pumps ' Doc. No. BK-GCS-PEDCO-120-ME-MR-0009.
- Couplings shall be dry, flexible and spacer type and coupling guards shall be of Non-Spark type.
- Bearing temperature shall be measured during mechanical run test.
- For electrical motor descriptions, refer to 'Specification For LV & MV Induction Motors' Doc. No.BK-GNRAL-PEDCO-000-EL-SP-0010 & 0017 .
- Minimum Design Metal Tem (MDMT)= 5 °C
- Turn down and design (rated) flow rates are 30% and 110 % of normal flow rate respectively.
- API Plan 31+53B shall be considered.
- PMI Testing For Alloy Steel Shall be Done.
- Power Factor, efficiency, frequent, voltage, frequent variation and voltage variation of motor shall be specified by vendor in data sheet.
- All drain and vents (If any) to be manifolded, valved and routed to the skid edge. a drain line to be considered in barrel and to be pipe up to mounted skid.
- Range of ambient temperature: Min. ambient temperature: 5 °C , Max. ambient temperature: 50 °C
- Pump is not installed directly on the ground and at least 20~30 cm height for pedestal is considered.
- Max Allowable Pressure at Shut-Off (barg): 23.3
- Barrel and pump shall have the same MAWP and to be hydrotest in same value with pump.



## احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

• 03-073-9184

## MECHANICAL DATA SHEETS FOR SLUG PUMPS

شماره صفحه: ۴ از ۱۰

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D05	0019	DT	ME	120	PEDCO	GCS	BK

API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2101 A/B (Sheet 1 of 7)

**CLIENT:** National Iranian South Oil Company (NISOC)

**PROJECT TITLE:** BINAK Gas Compressor Station

**JOB NUMBER:**

EQUIPMENT NUMBER: P-2101 A/B

EQUIPMENT SERVICE: SLUG PUMPS

**SERIAL NUMBER:**

**REQ. / SPEC NO. :** BK-GCS-PEDCO-120-ME-SP-0003

**PURCH ORDER NO.**

Cells coloured thus

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contain calculated values based on input data; do not change.








identify a cross referenced paragraph in the document note, and may also contain a drop down list

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Delete these notes on completion

**COMMENTS:**

DATA SHEETS						
	ITEM No.	ATT	ITEM No.	ATT	ITEM No.	ATT
PUMP	P-2101 A		P-2101 B			
MOTOR						
GEAR						
TURBINE						

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شماره پیمان: ۰۵۳-۰۷۳-۹۱۸۴		MECHANICAL DATA SHEETS FOR SLUG PUMPS							شماره صفحه: ۱۰ از ۵						
پروژه		بسته کاری		صادر کننده		تهیهات		رشته		نوع مدرک		سریال		نسخه	
BK		GCS		PEDCO		120		ME		DT		0019		D05	
API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2101 A/B (Sheet 2 of 7)															
APPLICABLE TO: <b>PROPOSAL</b> APPLICABLE NTL/INTNTL STANDARD: <b>API 610-11th Ed.&amp; IPS-G-PM-105(3)</b>															
FOR <b>NISOC</b> UNIT															
SITE <b>BINAK Gas Compressor Station</b> SERVICE <b>SLUG PUMP</b>															
NO. REQ <b>2 (1+1)</b> PUMP SIZE TYPE <b>VS6 (V.T.A)</b> No. STAGES															
MANUFACTURER MODEL <b>V.T.A.</b> SERIAL NO. <b>V.T.A.</b>															
LIQUID CHARACTERISTICS															
LIQUID TYPE OR NAME : <b>water+hydrocarbon</b> <b>Max &amp; min</b> <b>INTERMITTENT</b>															
VAPOR PRESSURE : bara <b>6.50</b> <b>values refer</b>															
DENSITY : ( NOTE 1) kg/m³ <b>only to the</b>															
SPECIFIC HEAT : kj/kgC <b>property</b>															
VISCOSITY : ( NOTE 1) cP <b>listed</b>															
OPERATING CONDITIONS (6.1.2) <b>D05</b>															
Units Maximum Minimum Rated Normal Min															
NPSH <sub>A</sub> Datum: <b>C.L. Impeller</b>															
PUMPING TEMPERATURE : °C <b>23.22</b> <b>8.82</b>															
FLOW : m³/hr <b>11</b> <b>10</b> <b>3.5</b>															
DISCHARGE PRESSURE : (6.3.2) barg <b>19.5</b>															
SUCTION PRESSURE : barg <b>5.75</b> <b>5.50</b>															
DIFFERENTIAL PRESSURE : bar <b>14</b>															
DIFFERENTIAL HEAD : m <b>199.56</b>															
NPSH <sub>A</sub> : m <b>1.1</b>															
HYDRAULIC POWER: KW <b>4.3</b>															
SITE AND UTILITY DATA															
LOCATION: <b>OUTDOOR</b> <b>UNHEATED</b>															
MOUNTED AT : <b>TROPICALISATION REQ'D</b>															
ELECTRIC AREA CLASSIFICATION: (6.1.22) ZONE <b>2</b>															
GROUP <b>II A</b> TEMP CLASS <b>T3</b>															
SITE DATA :															
ELEVATION (MSL) : <b>1.2</b> m <b>BAROMETER :</b> mBar															
RANGE OF DESIGN TEMPS: MIN / MAX °C															
RELATIVE HUMIDITY: MIN / MAX <b>0</b> <b>100</b> % (@ 25.6 °C)															
UNUSUAL CONDITIONS:															
UTILITY CONDITIONS :															
ELECTRICITY : DRIVERS HEATING CONTROL SHUTDOWN															
VOLTAGE <b>400</b>															
PHASE <b>3</b>															
HERTZ <b>50</b>															
COOLING WATER :															
TEMP RETURN DESIGN															
PRESS. RETURN DESIGN															
SOURCE															
COOLING WATER CHLORIDE CONCENTRATION:															
INSTRUMENT AIR : MIN kg															
STEAM															
TEMP DRIVERS															
PRESS. DRIVERS															
PERFORMANCE															
DRIVER (7.1.5) (NOTES 3,16,29,34 )															
PROPOSAL CURVE NO. RPM															
As Tested Curve No.															
IMPELLER DIA: RATED MAX. MIN. mm															
RATED POWER Kw EFFICIENCY (%)															
RATED CURVE BEP FLOW (at rated impeller dia) m³/hr															
MIN FLOW : kJ/Nm³ m³/hr															
PREFERRED OPERATING REGION (6.1.11) to m³/hr															
ALLOWABLE OPERATING REGION to m³/hr															
MAX HEAD @ RATED IMPELLER m															
MAX POWER @ RATED IMPELLER kW															
NPSH3 AT RATED FLOW : m															
CL PUMP TO U/S BASEPLATE m															
NPSH MARGIN AT RATED FLOW : m															
SPECIFIC SPEED (6.1.9)															
SUCTION SPECIFIC SPEED LIMIT															
SUCTION SPECIFIC SPEED															
MAX. ALLOW. SOUND PRESS. LEVEL REQD (6.1.14) <b>85</b> (dBA) @ 1 m															
EST MAX SOUND PRESS. LEVEL (dBA)															
MAX. SOUND POWER LEVEL REQ'D (6.1.14)															
EST MAX SOUND POWER LEVEL															
Driver Type <b>MOTOR</b>															
GEAR <b>NO</b>															
VARIABLE SPEED REQUIRED <b>NO</b>															
SOURCE OF VARIABLE SPEED															
OTHER															
MANUFACTURER															
NAMEPLATE POWER AND POWER FACTOR @ Site Condition KW															
Nominal RPM															
RATED LOAD RPM															
FRAME OR MODEL															
ORIENTATION <b>VERTICAL</b>															
LUBE															
BEARING TYPE:															
RADIAL /															
THRUST /															
STARTING METHOD <b>D.O.L (OPEN DISCHARGE VALVE)</b>															
INSULATION/TEMP. RISE <b>F/B</b>															
Max Voltage Variation <b>±10%</b>															
Max Frequency Variation <b>±5%</b>															
Max Voltage and Frequency Variation together <b>±10%</b>															

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شماره پیمان: ۰۵۳-۰۷۳-۹۱۸۴		MECHANICAL DATA SHEETS FOR SLUG PUMPS							شماره صفحه: ۱۰ از ۶	
		پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مدرک	سریال	نسخه	
		BK	GCS	PEDCO	120	ME	DT	0019	D05	

API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2101 A/B (Sheet 3 of 7)

CONSTRUCTION

API PUMP TYPE: VS6 (VTC) [Based on API 610 definitions]

SEE ALSO PAGE 6

NOZZLE CONNECTIONS: (6.5.5) NOTES 10,14,17

	Size	Facing	Rating	Position
SUCTION		RF	300	SIDE
DISCHARGE		RF	300	SIDE

PRESSURE CASING AUX. CONNECTIONS: (6.4.3.2) NOTES 10, 11

	No.	Size	Type	Facing	Rating	Posn.
BAL./LEAK OFF						
DRAIN				RF		
VENT				RF		
PRESSURE GAGE						
TEMP GAGE						
WARM-UP LINE						

Drain Valve Supplied By

SUPPLIER

DRAINS MANIFOLDED

VENT Valve Supplied By

SUPPLIER

VENTS MANIFOLDED

THREAD. CONS FOR PIPELINE SERVICE & < 50°C (6.4.3.2)

NO

SPECIAL FITTINGS FOR TRANSITIONING (6.4.3.3)

NO

CYLINDRICAL THREADS REQUIRED (6.4.3.8)

NO

GUSSET SUPPORT REQUIRED

YES

If Needed

MACHINED AND STUDDED CONNECTIONS (6.4.3.12)

NO

VS 6 DRAIN

External

DRAIN TO SKID EDGE

CASING MOUNTING: VERTICAL

CASING TYPE: (6.3.10) DIFFUSER

OH3 BACKPULLOUT LIFTING DEVICE REQD. (9.1.2.6)

CASE PRESSURE RATING:

MAWP: (6.3.5) By Supplier barg @ 38 °C

HYDROTEST: 1.5 X MAWP barg @ 38 °C

HYDROTEST OH PUMP AS ASSEMBLY

SUCT'N PRESS. REGIONS DESIGNED FOR MAWP YES

ROTATION: (VIEWED FROM COUPLING END)

IMPELLERS INDIVIDUALLY SECURED: YES

BOLT OH 3/4/5 PUMP TO PAD / FOUNDATION :

PROVIDE SOLEPLATE FOR OH 3/4/5 PUMPS

ROTOR:

SHAFT FLEXIBILITY INDEX (SFI) (9.1.1.3)

First Critical Speed Wet (Multi stage pumps only)

COMPONENT BALANCE TO ISO 1940 G1.0

SHRINK FIT -LIMITED MOVEMENT IMPELLERS (9.2.2.3)

COUPLING:(7.2.3) (7.2.13.f) NOTE 27

MANUFACTURER

MODEL

RATING (POWER/100 RPM)

SPACER LENGTH mm

SERVICE FACTOR Min 1.5

RIGID

COUPLING WITH HYDRAULIC FIT (7.2.10)

COUPLING BALANCED TO ISO 1940-1 G6.3 (7.2.3) YES

COUPLING WITH PROPRIETARY CLAMPING DEVICE (7.2.11)

COUPLING IN COMPLIANCE WITH (7.2.4) API 610 compliant

COUPLING GUARD STANDARD PER (7.2.13.a) ISO 14120

Window on Coupling Guard

BASEPLATE

API BASEPLATE NUMBER :

BASEPLATE CONSTRUCTION (7.3.14)

BASEPLATE DRAINAGE (7.3.1)

MOUNTING :

NON-GROUT CONSTRUCTION : (7.3.13)

VERTICAL LEVELING SCREWS : REQUIRED

LONGITUDINAL DRIVER POSITIONING SCREWS : REQUIRED

SUPPLIED WITH :  
☐ GROUT AND VENT HOLES YES  
☐ DRAIN CONNECTION YES

MOUNTING PADS SIZED FOR BASEPLATE LEVELING (7.3.5) YES

MOUNTING PADS TO BE MACHINED (7.3.6) YES

PROVIDE SPACER PLATE UNDER ALL EQUIPMENT FEET YES

OTHER

REMARKS :

BEARINGS AND LUBRICATION (6.10.1.1)

BEARING (TYPE / NUMBER): (6.11.4)

RADIAL /

THRUST /

REVIEW AND APPROVE THRUST BEARING SIZE : (9.2.5.2.4)

LUBRICATION : (6.10.2.2) (6.11.3) (9.2.6) FLOOD

PRESSURE LUBE SYSTEM TO ISO 10438- (9.2.6.5)

ISO 10438 DATA SHEETS ATTACHED

Pressurized Lube Oil System mtd on pump baseplate



Location of Pressurized Lube Oil System mounted on baseplate :

INTERCONNECTING PIPING PROVIDED BY SUPPLIER

OIL VISC. ISO GRADE VG

CONSTANT LEVEL OILER : REQUIRED



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شماره پیمان:  ۰۵۳-۰۷۳-۹۱۸۴	<b>MECHANICAL DATA SHEETS FOR SLUG PUMPS</b>								شماره صفحه: ۱۰ از ۸
	پروژه	بسته کاری	صادر کننده	تهیه کننده	رشته	نوع مدرک	سریال	نسخه	
	BK	GCS	PEDCO	120	ME	DT	0019	D05	
<b>API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2101 A/B (Sheet 5 of 7)</b>									
<b>SURFACE PREPARATION AND PAINT</b>					<b>TEST</b>				
MANUFACTURER'S STANDARD _____					SHOP INSPECTION (8.1.1) _____ <b>YES</b>				
OTHER (SEE BELOW) _____					PERFORMANCE CURVE _____				
SPECIFICATION NO. <b>BK-GNRAL-PEDCO-000-PI-SP-0006 , "Specification for Painting"</b>					& DATA APPROVAL PRIOR TO SHIPMENT. _____ <b>YES</b>				
PUMP:					TEST WITH SUBSTITUTE SEAL (8.3.3.2.b) _____ <b>NO</b>				
PUMP SURFACE PREPARATION _____					MATERIAL CERTIFICATION REQUIRED _____ CASING _____ <b>YES</b>				
PRIMER _____ <b>AS PER PROJECT PAINTING SPEC.</b>					SHAFT <b>YES</b> _____ (6.12.1.8) IMPELLER _____ <b>YES</b>				
FINISH COAT _____ <b>AS PER PROJECT PAINTING SPEC.</b>					OTHER <b>YES</b> _____ <b>Casing and impeller Wear ring</b> _____ <b>NOTE 18</b>				
BASEPLATE:					CASTING REPAIR WELD PROCEDURE APPR REQD _____ <b>YES</b>				
BASEPLATE SURFACE PREPARATION _____					INSPECTION REQUIRED FOR CONNECTION WELDS (6.12.3.4.d) _____				
PRIMER: _____ <b>AS PER PROJECT PAINTING SPEC.</b>					LIQUID PENETRANT _____ <b>YES</b> MAG PARTICLE _____ <b>YES</b>				
FINISH COAT _____ <b>AS PER PROJECT PAINTING SPEC.</b>					ULTRASONIC _____ RADIOGRAPHY _____				
DETAILS OF LIFTING DEVICES _____					INSPECTION REQUIRED FOR CASTINGS _____ <b>NOTE 26</b>				
SHIPMENT: (8.4.1) _____ <b>EXPORT</b>					LIQUID PENETRANT _____ <b>YES</b> MAG PARTICLE _____ <b>YES</b>				
EXPORT BOXING REQUIRED _____ <b>YES</b>					ULTRASONIC _____ RADIOGRAPHY _____				
OUTDOOR STORAGE MORE THAN 6 MONTHS _____ <b>YES</b>					HARDNESS TEST REQUIRED (8.2.2.7) _____				
SPARE ROTOR ASSEMBLY PACKAGED FOR:					ADDNL SUBSURFACE EXAMINATION (6.12.1.5) (8.2.1.3) _____				
ROTOR STORAGE ORIENTATION (9.2.8.2) _____					FOR _____				
SHIPPING & STORAGE CONTAINER FOR VERT STORAGE (9.2.8.3) _____					METHOD _____				
N <sub>2</sub> PURGE (9.2.8.4) _____					PMI TESTING REQUIRED (8.2.2.8) ( <b>NOTE 33</b> ) _____ <b>YES</b>				
SPARE PARTS <b>NOTE 26</b>					COMPONENTS TO BE TESTED _____				
START-UP _____ <b>YES</b>					RESIDUAL UNBALANCE TEST (J.4.1.2) _____				
NORMAL MAINTENANCE _____ <b>YES</b>					NOTIFICATION OF SUCCESSFUL SHOP _____				
					PERFORMANCE TEST (8.1.1.c) (8.3.3.5) ( <b>WIT</b> ) _____ <b>YES</b>				
ITEM No					BASEPLATE TEST (7.3.21) _____				
PUMP					HYDROSTATIC _____ <b>WIT</b>				
DRIVER					HYDROSTATIC TEST OF BOWLS & COLUMN (9.3.13.2) _____ <b>WIT</b>				
GEAR					PERFORMANCE TEST _____ <b>WIT</b>				
BASE					TEST IN COMPLIANCE WITH (8.3.3.2) _____ <b>8.3.3.2</b>				
TOTAL					TEST DATA POINTS TO (8.3.3.3) _____ <b>8.3.3.3</b>				
					TEST TOLERANCES TO (8.3.3.4) _____				
					NPSH (8.3.4.3.1) (8.3.4.3.4) ( <b>NOTE 9</b> ) _____ <b>WIT</b>				
					NPSH-1ST STG ONLY (8.3.4.3.2) _____				
					NPSH TESTING TO HI 1.6 OR ISO 9906 (8.3.4.3.3) _____				
					TEST NPSHA LIMITED TO 110% SITE NPSHA (8.3.3.6) _____				
					RETEST ON SEAL LEAKAGE (8.3.3.2.d) _____				
					RETEST REQUIRED AFTER FINAL HEAD ADJ (8.3.3.7.b) _____				
					COMPLETE UNIT TEST (8.3.4.4.1) _____ <b>WIT</b>				
					SOUND LEVEL TEST (8.3.4.5) _____ <b>WIT</b>				
					CLEANLINESS PRIOR TO FINAL ASSEMBLY (8.2.2.6) _____ <b>NON-WIT</b>				
					LOCATION OF CLEANLINESS INSPECTION _____				
					NOZZLE LOAD TEST _____				
					CHECK FOR CO-PLANAR MOUNTING PAD SURFACES _____				
					MECHANICAL RUN TEST UNTIL OIL TEMP STABLE _____ <b>WIT</b>				
					4 HR. MECH RUN AFTER OIL TEMP STABLE (8.3.4.2.1) _____ <b>WIT</b>				
					4 HR. MECH RUN TEST (8.3.4.2.2) _____				
					BRG HSG RESONANCE TEST (8.3.4.7) _____				
					STRUCTURAL RESONANCE TEST (9.3.9.2) _____				
					REMOVE / INSPECT HYDRODYNAMIC BEARINGS AFTER TEST _____				
					(9.2.7.5) _____				
					AUXILIARY EQUIPMENT TEST (8.3.4.6) _____				
					EQUIPMENT TO BE INCLUDED IN AUXILIARY TESTS _____				
					LOCATION OF AUXILIARY EQUIPMENT TEST _____				
					IMPACT TEST _____				
					REMOVE CASING AFTER TEST _____				
<b>OTHER PURCHASER REQUIREMENTS</b>									
COORDINATION MEETING REQUIRED (10.1.3) _____ <b>YES</b>									
MAXIMUM DISCHARGE PRESSURE TO INCLUDE _____									
OPERATION TO TRIP SPEED _____ <b>YES</b>									
MAX DIA. IMPELLERS AND/OR NO OF STAGES _____ <b>YES</b>									
CONNECTION DESIGN APPROVAL (9.2.1.4) _____									
TORSIONAL ANALYSIS / REPORT (6.9.2.10) _____									
PROGRESS REPORTS _____ <b>YES</b>									
OUTLINE OF PROC FOR OPTIONAL TESTS (10.2.5) _____									
ADDITIONAL DATA REQUIRING 20 YEARS RETENTION (8.2.1.1) _____									
LATERAL ANALYSIS REQUIRED (9.1.3.4) (9.2.4.1.3) _____									
MODAL ANALYSIS REQUIRED (9.3.9.2) _____									
DYNAMIC BALANCE ROTOR (6.9.4.4) _____									
INSTALLATION LIST IN PROPOSAL (10.2.3.1) _____ <b>YES</b>									
VFD STEADY STATE DAMPED RESPONSE ANALYSIS (6.9.2.3) _____									
TRANSIENT TORSIONAL RESPONSE _____									
BEARING LIFE CALCULATIONS REQUIRED (6.10.1.6) _____ <b>YES</b>									
IGNITION HAZARD ASSMT TO EN 13463-1 (7.2.13.e) _____									
CASING RETIREMENT THICKNESS DRAWING (10.3.2.3) _____									
FLANGES RQD IN PLACE OF SKT WELD UNIONS (7.5.2.8) _____ <b>YES</b>									
INCLUDE PLOTTED VIBRATION SPECTRA (6.9.3.3) _____									
CONNECTION BOLTING (7.5.1.7) _____ <b>SS</b>									
CADMIUM PLATED BOLTS PROHIBITED _____									
VENDOR TO KEEP REPAIR AND HT RCDS (8.2.1.1.c) _____ <b>YES</b>									
VENDOR SUBMIT TEST PROCEDURES (8.3.1.1) _____ <b>YES</b>									
SUBMIT INSPECTION CHECK LIST (8.1.5) <b>NOTE 4</b> _____ <b>YES</b>									





<p>نگهداشت و افزایش تولید میدان نفتی بینک</p> <p>سطح الارض</p> <p>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</p>							
MECHANICAL DATA SHEETS FOR SLUG PUMPS							
نسخه	سروال	نوع مدرک	رشته	تهیه‌یلات	صادرکننده	بسته کاری	پروژه
D05	0019	DT	ME	120	PEDCO	GCS	BK



MECHANICAL DATA SHEETS FOR SLUG PUMPS

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0019	DT	ME	120	PEDCO	GCS	BK


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PRESSURE VESSEL DESIGN CODE REFERENCES
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THESE REFERENCES MUST BE LISTED BY THE MANUFACTURER	
CASTING FACTORS USED IN DESIGN ( TABLE 3)	
SOURCE OF MATERIAL PROPERTIES	

WELDING AND REPAIRS (NOTE 22)	
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THESE REFERENCES MUST BE LISTED BY THE PURCHASER. (DEFAULT TO TABLE 11 IF NO PURCHASER PREFERENCE IS STATED)

ALTERNATE WELDING CODES AND STANDARDS

ALTERNATE WELDING CODES AND STANDARDS	
WELDING REQUIREMENT (APPLICABLE CODE OR STANDARD)	DEFAULT PER TABLE 11

**DEFAULT PER TABLE 11**

**DEFAULT PER TABLE 11**

**DEFAULT PER TABLE 11**

**DEFAULT PER TABLE 11**

**DEFAULT PER TABLE 11**

DEFAULT PER TABLE 11

**DEFAULT PER TABLE 11**

MATERIAL INSPECTION	
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DEFAULT TO TABLE 14	YES
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TYPE OF INSPECTION	METHOD	FOR FABRICATION	FOR CASTINGS
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TYPE OF INSPECTION	METHOD	FOR FABRICATIONS	FOR CASTINGS
RADIOGRAPHY			
ULTRASONIC INSPECTION			
MAGNETIC PARTICLE INSPECTION			
LIQUID PENETRANT INSPECTION			
VISUAL INSPECTION (all surfaces)			

This image shows a full page of blank, lined paper. It features approximately 28 horizontal blue or grey lines spaced evenly apart, typical of notebook paper. The lines extend across the entire width of the page, leaving small margins at the top and bottom. There are no vertical lines, text, or other markings on the page.