

 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 FLARE KO DRUM PUMPS (API 610)							شماره صفحه: ۱ از ۱۰	
	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	GCS	PEDCO	120	ME	DT	0024		D05

طرح نگهداشت و افزایش تولید ۲۷ مخزن

MECHANICAL DATA SHEETS FOR FLARE KO DRUM PUMPS (P-2201 A/B)

نگهداشت و افزایش تولید میدان نفتی بینک

D05	MAY. 2023	IFA	H. Adineh	M.Fakharian	A.M.Mohseni	
D04	SEP. 2022	IFA	H. Adineh	M.Fakharian	M. Mehrshad	
D03	APR. 2022	IFA	H. Adineh	M.Fakharian	M. Mehrshad	
D02	MAR. 2022	IFA	H. Adineh	M.Fakharian	M. Mehrshad	
D01	JAN. 2022	IFA	H. Adineh	M.Fakharian	M. Mehrshad	
D00	NOV. 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-708855
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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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	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	GCS	PEDCO	120	ME	DT	0024		D05

REVISION RECORD SHEET

page	D00	D01	D02	D03	D04
1	x	x	x	x	x
2	x	x	x	x	x
3	x	x	x	x	x
4	x				
5	x	x	x	x	x
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page	D05	D05	D06	D03	D04
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	D05	0024	DT	ME	120	PEDCO	GCS	BK

GENERAL NOTES

D05

1

Mass Density [kg/m3] at Min. / Norm / Max. Temp: 852 / 980 / 1022

2

Viscosity [cP] At Min. / Normal / Max. Temp: 1.03 / 0.46 / 1.5

3

Suction & Discharge line diameters are 2".

4

Mechanical Seal data sheet shall be filled in by vendor as per API 682, 4th edition.

5

A drain line to be considered in barrel and to be pipe up to mounted skid.Pump drain shall be terminated at skid edge with flange connection and valved. Valves in the piping system shall be Welded Flanged type.

6

Material class of 'I-1', 'I-2','S-1', 'S-2', 'S-3', 'S-4', 'S-5', 'S-6','C-6' 'A-7' and 'A-8', which is defined in API 610 table H.1, shall be provided with full chemical analysis and mechanical test certification to BS EN 10204:2004 "3.1".
Material class of 'D-1' and 'D-2', which is defined in API 610 table H.1 and also titanium materials shall be provided with full chemical analysis and mechanical test certification to BS EN 10204:2004 "3.2".

7

PMI Testing for Alloy Steel Shall be Done.

8

If NPSH margin be less than 1m, NPSH test Shall be Done.

9

API Plan 31-53B shall be considered. (vendor to confirm)

10

Design Condition:
(Min./Max.) Design Temperature(°C): 5 / 85
Design Pressure(barg): 9

11

Temperature finalize after depressurizing study.

12

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.

13

Vendor shall submit ITP (Inspection & Testing Plan) with his proposal.

14

Vendor is requested to confirm the material, or propose appropriate alternative.

15

The Tie-in flanges shall conform to ASME B-16.5.

16

Vendor to indicate which minimum flow pumps can achieve.

17

Pumps shall be designed, fabricated, tested, and inspected in accordance with the requirements of API 610 11th edition.

18

Welding repair procedures shall be submitted for approval.

19

If pump is self venting there is no need for vent.

20

Ultrasonic Test shall be performed for forged shaft.

21

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.

22

Spare parts shall be supplied by vendor according to 'MR's appendix for Centrifugal Pumps; Doc. No.; BK-GCS-PEDCO-120-ME-MR-0009"

23

Bearing temperature shall be measured during mechanical run test.

24

For electrical motor descriptions, refer to 'Specification For LV induction Motors' Doc. No. BK-GNRAL-PEDCO-000-EL-SP-0010. and 'Specification for MV induction motors' Doc.No. BK-GNRAL-PEDCO-000-EL-SP-0017.

25

Electrical motor shall be rated for the end of curve.

26

For site conditions refer to Process Basis of Design Document. Doc.No. BK-GNRAL-PEDCO-000-PR-DB-0001.

27

Power Factor, efficiency, frequent, voltage, frequent variation and voltage variation of motor shall be specified by vendor in data sheet.

28

Allowable external forces and moments on nozzle are equal to two times of table 5 of API 610-11th edition.

29

The material shall be in compliance with NACE MR0175/ISO15156 and Specification For Material Requirements in Sour service Document No. BK-GNRAL-PEDCO-000-PI-SP-0008

30

Range of Amb.Temp. : Min. ambient temperature: 5 °C , Max. ambient temperature: 50 °C.

31

Coupling shall be flexible with spacer and coupling guard shall be of Non-Spark type.

32

elevation of pump centerline from ground is 76 cm.

33

The motors, pump mechanical seal, pump coupling and pump accessories shall be supplied from the project's approved vendor list (A.V.L.). Chinese & Indian vendors are not acceptable for Mechanical seal , Electro motor and coupling subvendors.

34

Max Allowable Pressure at Shut-Off(barg) : 9

35

Barometric pressure in Binak new GCS; winter: 14.37 psia summer: 13.26 psia

36

Barrel and pump shall have the same MAWP and to be hydrotest in same value with pump.

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شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	MECHANICAL DATA SHEETS FOR FLARE KO DRUM PUMP (API 610) <table><tr><td>پروژه</td><td>بسته کاری</td><td>صادر کننده</td><td>تسهیلات</td><td>رشته</td><td>نوع مدرک</td><td>سریال</td><td>نسخه</td></tr><tr><td>BK</td><td>GCS</td><td>PEDCO</td><td>120</td><td>ME</td><td>DT</td><td>0024</td><td>D05</td></tr></table>	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	BK	GCS	PEDCO	120	ME	DT	0024	D05	شماره صفحه: ۵ از ۱۰
پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه											
BK	GCS	PEDCO	120	ME	DT	0024	D05											

API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2201 A/B (Sheet 2 of 6)

APPLICABLE TO: PROPOSAL		APPLICABLE NTL/INTNTL STANDARD: API 610 - 11th Edition, IPS-G-PM-105	
FOR NISOC		UNIT	
SITE BINAK Gas Compressor Station		SERVICE	
NO. REQ 2(1+1)	PUMP SIZE	TYPE Vertical	No. STAGES V.T.A
MANUFACTURER		MODEL VS6 (VTC)	SERIAL NO.

D05

LIQUID CHARACTERISTICS

	Units	Maximum	Minimum	Note	
LIQUID TYPE OR NAME :		HC		Max & min values refer only to the property listed	
VAPOR PRESSURE :	bara	1			
DENSITY : (Note 1)	kg/m³	1022	852		
SPECIFIC HEAT :	kJ/kgC				
VISCOSITY : (Note 2)	cP	1.50	1.03		
OPERATING CONDITIONS (6.1.2)					
	Units	Maximum	Rated	Normal	Min
NPSH _A Datum:		C.L. Impeller			
PUMPING TEMPERATURE :	°C		5(worse case)		
FLOW :	m³/hr		2.20	2.00	
DISCHARGE PRESSURE:	barg		1.6		
SUCTION PRESSURE :	barg	0.6			0.1
DIFFERENTIAL PRESSURE :	bar		1.5		
DIFFERENTIAL HEAD :	m		15.6		
NPSH _A :	m		1		
HYDRAULIC POWER:	KW		0.1		

SITE AND UTILITY DATA

LOCATION:
OUTDOOR **UNHEATED**
MOUNTED AT : **TROPICALISATION REQ'D**
ELECTRIC AREA CLASSIFICATION: (6.1.22) **ZONE** **1**
GROUP **II|B** **TEMP CLASS** **T3**
SITE DATA :
ELEVATION (MSL) : **12.5** m **BAROMETER :** (Note 35) mBar
RANGE OF DESIGN TEMPS:MIN / MAX **5** **85** °C
RELATIVE HUMIDITY: MIN / MAX **0** **100** % (@ 25.6 °C)
UNUSUAL CONDITIONS:
UTILITY CONDITIONS :

ELECTRICITY :	DRIVERS	HEATING	CONTROL	SHUTDOWN
VOLTAGE	400			
PHASE	3			
HERTZ	50			

 COOLING WATER : | | RETURN | DESIGN | |---------------------------------------|--------|--------| | TEMP | | | | PRESS. | | | | SOURCE | | | | COOLING WATER CHLORIDE CONCENTRATION: | | | **INSTRUMENT AIR :** kg MIN kg **STEAM** | | DRIVERS | HEATING | |--------|---------|---------| | TEMP | | | | PRESS. | | | |

PERFORMANCE

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)	85.00 (dBA)
EST MAX SOUND PRESS. LEVEL	(dBA)
MAX. SOUND POWER LEVEL REQ'D (6.1.14)	
EST MAX SOUND POWER LEVEL	

DRIVER (7.1.5) (Note 27)

Driver Type	MOTOR
GEAR	NO
VARIABLE SPEED REQUIRED	NO
SOURCE OF VARIABLE SPEED	
OTHER	
MANUFACTURER	
NAMEPLATE POWER AND POWER FACTOR	@Site Condition KW
Nominal RPM	
RATED LOAD RPM	
FRAME OR MODEL	
ORIENTATION	HORIZONTAL
LUBE	
BEARING TYPE:	
RADIAL	/
THRUST	/
STARTING METHOD	D.O.L/ Open Discharge Valve
INSULATION/TEMP. RISE	F/B
Max Voltage Variation	±10%
Max Frequency Variation	±5%
Max Voltage and Frequency Variation together	±10%

D05

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نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه											
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API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2201 A/B (Sheet 3 of 6)

CONSTRUCTION																																																							
API PUMP TYPE: VS6 [Based on API 610 definitions] SEE ALSO PAGE 6 NOZZLE CONNECTIONS: (6.5.5) (Notes 3,28) <table><thead><tr><th>Size</th><th>Facing</th><th>Rating</th><th>Position</th></tr></thead><tbody><tr><td>SUCTION</td><td>RF</td><td>300</td><td>SIDE</td></tr><tr><td>DISCHARGE</td><td>RF</td><td>300</td><td>SIDE</td></tr></tbody></table> PRESSURE CASING AUX. CONNECTIONS: (6.4.3.2) <table><thead><tr><th>No.</th><th>Size</th><th>Type</th><th>Facing</th><th>Rating</th><th>Posn.</th></tr></thead><tbody><tr><td>BAL./LEAK OFF</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>DRAIN</td><td></td><td></td><td>RF</td><td>300</td><td></td></tr><tr><td>VENT</td><td></td><td></td><td>RF</td><td>300</td><td></td></tr><tr><td>PRESSURE GAGE</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>TEMP GAGE</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>WARM-UP LINE</td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> Drain Valve Supplied By VENDOR DRAINS MANIFOLDED VENDOR VENT Valve Supplied By VENDOR VENTS MANIFOLDED YES THREAD. CONS FOR PIPELINE SERVICE & < 50°C (6.4.3.2) SPECIAL FITTINGS FOR TRANSITIONING (6.4.3.3) CYLINDRICAL THREADS REQUIRED (6.4.3.8) GUSSET SUPPORT REQUIRED YES If Needed MACHINED AND STUDDED CONNECTIONS (6.4.3.12) VS 6 DRAIN DRAIN TO SKID EDGE YES	Size	Facing	Rating	Position	SUCTION	RF	300	SIDE	DISCHARGE	RF	300	SIDE	No.	Size	Type	Facing	Rating	Posn.	BAL./LEAK OFF						DRAIN			RF	300		VENT			RF	300		PRESSURE GAGE						TEMP GAGE						WARM-UP LINE						CASING MOUNTING: CASING TYPE: (6.3.10) OH3 BACKPULLOUT LIFTING DEVICE REQD. (9.1.2.6) CASE PRESSURE RATING: (Note 36) MAWP : (6.3.5) 40 barg @ °C HYDROTEST : 1.5*MAWP barg @ °C HYDROTEST OH PUMP AS ASSEMBLY YES 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) MANUFACTURER MODEL RATING (POWER/100 RPM) SPACER LENGTH mm SERVICE FACTOR min 1.5 RIGID (Note 31) NO 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
Size	Facing	Rating	Position																																																				
SUCTION	RF	300	SIDE																																																				
DISCHARGE	RF	300	SIDE																																																				
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MATERIAL (6.12.1.1) APPENDIX H CLASS S-6 (VTC) MIN DESIGN METAL TEMP (6.12.4.1) 5 °C REDUCED-HARDNESS MATERIALS REQ'D (6.12.1.12.1) YES (Note 29) Applicable Hardness Standard (6.12.1.12.3) BARREL : CASE : DIFFUSERS IMPELLER : IMPELLER WEAR RING : CASE WEAR RING : SHAFT: Bowl (if VS-type) Inspection Class Level 2	BASEPLATE API BASEPLATE NUMBER : BASEPLATE CONSTRUCTION (7.3.14) BASEPLATE DRAINAGE (7.3.1) Entire Baseplate Drain Pan MOUNTING : NON-GROUT CONSTRUCTION : (7.3.13) VERTICAL LEVELING SCREWS : REQUIRED LONGITUDINAL DRIVER POSITIONING SCREWS : REQUIRED SUPPLIED WITH :<table><tr><td>GROUT AND VENT HOLES</td><td>YES</td></tr><tr><td>DRAIN CONNECTION</td><td>YES</td></tr></table> MOUNTING PADS SIZED FOR BASEPLATE LEVELING (7.3.5) MOUNTING PADS TO BE MACHINED (7.3.6) PROVIDE SPACER PLATE UNDER ALL EQUIPMENT FEET OTHER REMARKS :	GROUT AND VENT HOLES	YES	DRAIN CONNECTION	YES																																																		
GROUT AND VENT HOLES	YES																																																						
DRAIN CONNECTION	YES																																																						
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 VENDOR OIL VISC. ISO GRADE VG CONSTANT LEVEL OILER : REQUIRED																																																							

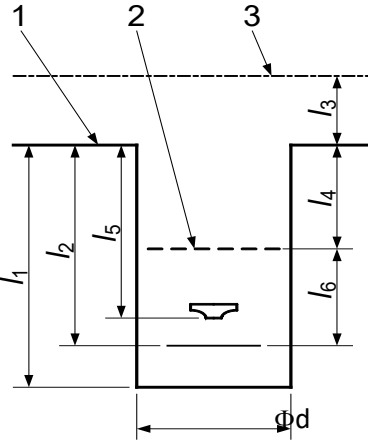
 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
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	D05	0024		DT	ME	120	PEDCO	GCS	BK

API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2201 A/B (Sheet 4 of 6)

INSTRUMENTATION	SEAL SUPPORT SYSTEM MOUNTING
SEE ATTACHED API-670 DATA SHEET	SEAL SUPPORT SYSTEM MOUNTED ON PUMP BASEPLATE
ACCELEROMETER (7.4.2.1)	(7.5.1.4)
Number of Accelerometers	IDENTIFY LOCATION ON BASEPLATE
Mounting Location of Accelerometers	INTERCONNECTING PIPING BY VENDOR
PROVISION FOR MTG ONLY (6.10.2.10)	MECHANICAL SEAL (6.8.1) (VTS)
Number of Accelerometers	SEE ATTACHED ISO 21049/API 682 DATA SHEET (Note 4)
Mounting Location of Accelerometers	ADDITIONAL CENTRAL FLUSH PORT (6.8.9)
FLAT SURFACE REQUIRED (6.10.2.11) YES	HEATING JACKET REQ'D. (6.8.11)
Number of Accelerometers	FLUSH PLAN 31+53B
Mounting Location of Accelerometers	HEATING AND COOLING (6.1.17) (VTS)
VIBRATION PROBES (7.4.2.2)	COOLING REQ'D
PROVISIONS FOR VIB. PROBES	COOLING WATER PIPING PLAN
NUMBER PER RADIAL BEARING	COOLING WATER PIPING
NUMBER PER AXIAL BEARING	FITTINGS
MONITORS AND CABLES SUPPLIED BY (7.4.2.4)	COOLING WATER PIPING MATERIALS
TEMPERATURE (7.4.2.3)	COOLING WATER REQUIREMENTS:
PROVISIONS FOR TEMP PROBES	TOTAL COOLING WATER
RADIAL BEARING TEMP.	HEATING MEDIUM
NUMBER PER RADIAL BEARING	OTHER
THRUST BEARING TEMP.	HEATING PIPING
NUMBER PER THRUST BEARING ACTIVE SIDE	PIPING & APPURTENANCES
NUMBER PER THRUST BEARING INACTIVE SIDE	MANIFOLD PIPING FOR PURCHASER CONNECTION (7.5.1.6)
TEMP. GAUGES (WITH THERMOWELLS) (9.1.3.6)	VENT YES
PRESSURE GAUGE TYPE	DRAIN YES
Remarks	VALVES YES (NOTE 5)
	COOLING WATER YES
	TAG ALL ORIFICES (7.5.2.4) YES
	SOCKET WELD CONN ON SEAL GLAND (7.5.2.8)

 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 FLARE KO DRUM PUMP (API 610)	شماره صفحه: ۱۰ از ۱۹							
	نسخه		سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
	D05		0024	DT	ME	120	PEDCO	GCS	BK

API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2201 A/B (Sheet 6 of 6)

1	Note	VERTICAL TYPE (FIG 1.1)	VS6	Rev
2		REMARKS	For P&ID refer to BK-GCS-PEDCO-120-PR-PI-0020	
3				
4				
5		VERTICAL PUMPS		
6		PUMP THRUST:	(+) UP (-) DOWN	
7		STATIC THRUST	_____ N _____ N	
8		AT MIN FLOW	_____ N _____ N	
9		AT RATED FLOW	_____ N _____ N	
10		AT MAX FLOW	_____ N _____ N	
11		MAX THRUST	_____ N _____ N	
12		SOLEPLATE REQUIRED	_____	
13		SOLEPLATE Length x Width	_____ m X _____ m	
14		SOLEPLATE THICKNESS	_____ mm	
15		MOUNTING FLANGE REQUIRED	_____	
16		COLUMN PIPE:		
17		DIAMETER	_____ mm	
18		LENGTH	_____ m	
19		NUMBER	_____	
20		SPACING	_____ m	
21		GUIDE BUSHINGS:		
22		NUMBER	_____	
23		LINE SHAFT BEARING SPACING	_____ mm	
24		GUIDE BUSHING LUBE:	_____	
25				
26				
27				
28		MATERIALS (additional)		
29		SUCTION CAN / BARREL:	_____	LINESHAFT SLEEVES : YES
30		DISCHARGE HEAD :	• _____	BEARING RETAINER : _____
31		BOWL SHAFT :	_____	SHAFT ENCLOSING TUBE : _____
32		LINESHAFT :	_____	DISCHARGE COLUMN : _____
33		LINESHAFT HARDFACING :	_____	PRESSURE RATING: MAWP HYDRO
34		BELLMOUTH :	_____	HEAD _____
35		BOWL BEARING :	_____	COLUMN PIPE _____
36		LINESHAFT BEARING :	_____	BOWL _____
37		SUMP ARRANGEMENT		
38		SUMP DIMENSIONS :		
39		GRADE ELEVATION	1 _____ m	
40		LOW LIQUID LEVEL	2 _____ m	
41		C.L. OF DISCHARGE	3 _____ m	
42		SUMP DEPTH	l ₁ _____ m	
43		PUMP LENGTH	l ₂ _____ m	
44		GRADE TO DISCH.	l ₃ _____ m	
45		GRADE TO LOW LIQUID LVL	l ₄ _____ m	
46		GRADE TO 1ST STG IMPL'R.	l ₅ _____ m	
47		SUBMERGENCE REQ'D	l ₆ _____ m	
48		SUMP DIAMETER	Φd _____ m	
49				
50				
51				
52				
53				
54				
55				
56				



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



• 03 - • 73 - 9184

MECHANICAL DATA SHEETS FOR FLARE KO DRUM PUMP (API 610)

شماره صفحه: ۱۰ از ۱۰

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0024	DT	ME	120	PEDCO	GCS	BK

API Std. 610 CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2201 A/B (Sheet 6 of 6)

PRESSURE VESSEL DESIGN CODE REFERENCES

THESE REFERENCES MUST BE LISTED BY THE MANUFACTURER

CASTING FACTORS USED IN DESIGN (TABLE 3)

SOURCE OF MATERIAL PROPERTIES

WELDING AND REPAIRS

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

ALTERNATE WELDING CODES AND STANDARDS

WELDING REQUIREMENT (APPLICABLE CODE OR STANDARD)

WELDER/OPERATOR QUALIFICATION

WELDING PROCEDURE QUALIFICATION

NON-PRESSURE RETAINING STRUCTURAL WELDING SUCH AS BASEPLATES OR SUPPORTS

MAGNETIC PARTICLE OR LIQUID PENETRANT EXAMINATION OF PLATE EDGES

POSTWELD HEAT TREATMENT

POSTWELD HEAT TREATMENT OF CASING FABRICATION WELDS

REQUIRED

REQUIRED

MATERIAL INSPECTION

THESE REFERENCES MUST BE LISTED BY THE PURCHASER

DEFAULT TO TABLE 14

YES

ALTERNATIVE MATERIAL INSPECTIONS AND ACCEPTANCE CRITERIA (SEE TABLE 15) (8.2.2.5)

TYPE OF INSPECTION	METHOD	FOR FABRICATIONS	FOR CASTINGS
RADIOGRAPHY			
ULTRASONIC INSPECTION			
MAGNETIC PARTICLE INSPECTION			
LIQUID PENETRANT INSPECTION			
VISUAL INSPECTION (all surfaces)			

REMARKS :

For P&ID refer to "BK-GCS-PEDCO-120-PR-PI-0020"

