

 <b>NISOC</b>	<b>نگهداشت و افزایش تولید میدان نفتی بینک</b> <b>سطح الارض</b>						 	
	<b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b>							
<b>MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM</b>								
شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0036	D01
شماره صفحه: ۱ از ۸								

## طرح نگهداشت و افزایش تولید ۲۷ مخزن

### MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



#### نگهداشت و افزایش تولید میدان نفتی بینک

D01	SEP.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: 2      CLIENT Doc. Number: F0Z-709383



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



 <b>NISOC</b>	<b>نگهداشت و افزایش تولید میدان نفتی بینک</b> <b>سطح الارض</b>								
	<b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b>								
	<b>MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM</b>								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادرکننده PEDCO	تسهیلات 120	رشته ME	نوع مدرک DT	سریال 0036	نسخه D01	شماره صفحه: ۲ از ۸

### REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04	Page	D00	D01	D02	D03	D04
1	X	X				65					
2	X	X				66					
3	X	X				67					
4	X					68					
5	X	X				69					
6	X	X				70					
7	X	X				71					
8	X	X				72					
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 <b>NISOC</b>	<b>نگهداشت و افزایش تولید میدان نفتی بینک</b> <b>سطح الارض</b>								
	<b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b>								
	<b>MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM</b>								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۸ از ۳
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0036	D01	

Rev	General Notes	
	D01	
D01	1. The Asterisk * denotes information and/or confirmation required from VENDOR. The Vendor shall be fully responsible for the complete mechanical design and supply of the vessel.	
	2. Nozzles and flanges shall be suitably supported and reinforced based on nozzle loads provided in project Specification for Pressure Vessels, Document No. BK-GNRL-PEDCO-000-ME-SP-0001.	
	3. VENDOR shall include for the services of a independent verification body for mechanical design, stage inspection, testing and stamping of the equipment (if possible).	
D01	4. Access Ladder & Platform to be considered .	
	5. Painting and coating (internal & external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRL-PEDCO-000-PI-SP-0006 and Specification for Lining (Internal Protection of Equipment by painting), Doc. No. BK-GNRL-PEDCO-000-PI-SP-0007.	
D01	6. Flanges shall comply with ANSI B16.5. Series A. Nozzle bolt holes shall straddle the natural centerlines. VENDOR to confirm maximum allowable nozzle loads and moments. RF: Raised Face, WN: Welding Neck	
	7. For equipment requiring PWHT, final inspection and acceptance by the CLIENT or its nominated representative shall only be undertaken against NDE after PWHT. All weldings shall be made before vessel heat treatment (if any).	
	8. Manways shall be supplied complete with blind flange, external grab handles, internal grab handle and ladder rungs, nuts, bolting, gasket and proof load test davits. Davits shall be proof load tested on the vessels to 1.5 x Safe Working Load (SWL) and shall be marked accordingly.	
	9. Loads at support base, Shall be calculated and determined by vendor.	
D01	10. Location and number of lifting lugs on vessels shall be specified on VENDOR drawing.	
	11. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel.	
	12. All material, corrosion allowance and their suitability for the process fluid at design pressure and temperature to be confirmed by vendor.	
D01	13. The vendor shall be responsible for mechanical strength of the equipment based on mentioned condition in data sheets.	
D01	14. All nozzle locations and orientations will be finalized later.	
	15. Instrumentation items are excluded from vendor's scope of supply.	
	16. Any changes in material of construction, location & orientation of the nozzles shall be confirmed by client.	
	17. Structural surfaces of stainless steel internals shall be pickled & passivated.	
D01	18. All dimensions shown are in mm unless otherwise indicated. All nozzle sizes are in inch.	
	19. All materials shall be new and unused.	
	20. Prior to sealing the vessel for shipping and storage, the inside surface of the equipment shall be 100% visually inspected. Internal surfaces shall be clean and thoroughly dried. The CLIENT or its nominated representative shall witness the cleanliness of internal suarfaces. Flange faces shall be protected by wooden or plastic dummy flanges.	
	21. Fabrication tolerances for vessel shall be in accordance with requirement of ASME code.	
	22. All items shall be clearly match marked against vessel drawings to facilitate erection.	
	23. The elevation of equipment's nozzels should be specified as follows :	
	I. For vertical vessels : from bottom T.L.	
	II. For horizontal vessels : from Left T.L.	
	24. Vendor shall supply details of all welding connections and give general specification of used materials.	
	25. Specified accessories and attachments shall be supplied by vendor.	
	26. Gasket shall be spiral wound type, graphite filled with inner ring S.S.316 and outer ring S.S.	
D01	27. Deleted.	
D01	28. Deleted.	
D01	29. Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Packing, Marking, Transportation Procedure Transportation Procedure Doc. No. "BK-GNRL-PEDCO-000-QC-PR-0045".	

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	<b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b>							
	<b>MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM</b>							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0036	D01
شماره صفحه: ۴ از ۸								

Rev	General Notes (Cont'd)	
	D01	
	30. For standard detail of Earth lug execution refer to the Project "Standard Detail Drawing For Pressure Vessels and Heat Exchangers Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001".	
	31. Elliptical heads shall be Ultrasonic Tested for lamination after forming.	
	32. The projection of equipment's nozzles should be considered as per 'Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001". Projection of Horizontal & Vertical nozzles is from tangent line and centerline respectively.	
D01	33. Deleted	
	34. All reinforcement pads shall have 1/4" (6mm) tell-tale hole and 1/8" (3mm) vent hole as per Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001".	
D01	35. Minimum requirement for pre-commissioning, commissioning, start up and two years operation spare parts shall be in accordance with document E&C-QC-SP-1.	
	36. Nozzle loads shall be in accordance with Specification for Pressure Vessels, Doc. No. BK-GNRAL-PEDCO-ME-SP-0001.	
	37. All nozzles must be vertical or horizontal and not perpendicular or parallel to vessel center line.	
D01	38. Lifting Lugs / trunnions shall be provided to facilitate a single point lift. If a single point lift cannot be achieved without the use of a lifting beam, then VENDOR shall provide a suitable, certified, lifting beam.	
D01	39. Design pressure specified is at top of vessels. VENDOR design shall include static head for vessels flooded with specific gravity of the handled liquid.	
D01	40. VENDOR is to maximize shop fabrication based on the following transportation limits: <ul style="list-style-type: none"> <li>- Maximum weight: 96 tonnes</li> <li>- Maximum load per axle: 12 tonnes</li> <li>- Maximum length: 50.0 m</li> <li>- Maximum width: 5.0 m</li> <li>- Maximum height: 5.2 m</li> </ul> For items with dimensions and weights greater than the road capacity specified above, VENDOR may be required to split the package into several components.	
D01	41. All external attachments directly welded to the pressure part shall be the same material as vessel grade.	



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

### احداث ردیف تراکم گاز در ایستگاه جمع آوری سنک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره ۵ صفحه: ۵ از ۸

شماره ۵ بهمان:

• 03 - • 73 - 9184

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## سببالات

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**فسخه**

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Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 1 of 4

Rev	DATA SHEET					Rev
1	Description : Glycol Sump Drum					
2	Tag No. : V-2107		Quantity : 1 Set			
3	Type : Pressure Vessel					
4	Process Design Data					
5	Contents	-	Corrosive / Erosive	NO		
6	Operating Temp. (°C)	AMB	Liquid Flow (kg/h)	-		
7	Operating Press. (barg)	0.1	Vap. Molec. Weight (kg/kmol)	143.1		
8	Gas Flow (kg/h)	-	Liquid Sp. Gravity	1100		
9	Liquid Viscosity (cP)	6.63	Lethal:	No		
10	Mechanical Design Data (1) D01					
11	Design Temp. (°C)	85	Vessel Orientation	Horizontal		
12	Design Press. (barg)	5	LLLL / HHLL (mm)	150 / 800		
13	Test Press. (barg)	Per Code & Spec. Requirements		Normal Liquid Vol. (m³)	4	
14	Internal Vacuum (barg)	F.V.	In. Dia. Of Boots (mm)	N/A		
15	In. Dia. of Shell (mm)	1100	Boot Length (mm)	N/A		
16	Tan/Tan Dim. (mm)	3600	Boot Head Type	N.A		
17	Vessel Head Type	2:1 Elliptical (Note 31)		Corr. Allowance (mm)	3	
18	Shell Wall Thk. (mm)	*(1)	Joint Efficiency	0.85 (Shell) / 1 (Head)		
19	Head Wall Thk. (mm)	*(1)	Ambient Temp. (°C)	5 ~ 50		
20	Seismic Design	Site Class : D, Code: ASCE 7-10		MDMT (°C)	5	
21	Wind Design	Speed: 120 Km/hr (Max.), Code: ASCE 7-10		Insulation Required	-	
22	Materials D01					
23	Code	ASME II /ASTM		Internal Welded Supports	A 516 70	
24	Shell	A 516 70		Nozzle Necks	A 106 Gr.B	
25	Heads	A 516 70		Pipes	A 106 Gr.B	
26	Lining	P8		Plates	A 516 70	
27	Saddles	A 283 Gr. C		Forgings	A 105	
28	Wear Plate	A 516 70		Flanges	A 105	
29	Stiffening Rings	A 516 70		Fittings	A 234 Gr. WPB	
30	Gaskets	Note 26		Welded Internals	A 516 70	
31	Lifting Lugs	A 516 Gr.70 / A 283 Gr. C		External Bolts / Nuts (Note 11)	A 193 Gr. B7 / A 194 Gr. 2H	
32	Reinforcing Pads	A 516 70		Internal Bolts / Nuts (Note 11)	S.S.	
33	Ladder & Platform	C.S.		External Welded Clips	A 516 Gr.70	
34	Gratings	Hot Dip Galvanized C.S.		Name Plate	S.S. 316	
35						
36	REFERENCE STANDARDS & DOCUMENTS D01					
37	Mechanical Design Code		ASME Sec VIII Div 1, IPS-G-ME-150 (Latest Edition)			
38	Specification for Pressure Vessels		BK-GNRL-PEDCO-000-ME-SP-0001			
39	Process Basis of Design		BK-GNRL-PEDCO-000-PR-DB-0001			
40	Piping & Instrument Diagram (P&ID)		BK-GCS-PEDCO-120-PR-PI-0025			
41	Specification for Painting		BK-GNRL-PEDCO-000-PI-SP-0006			
42	Specification for Insulation		BK-GNRL-PEDCO-000-PI-SP-0019			
43	Specification For Material Requirements in Sour service		BK-GNRL-PEDCO-000-PI-SP-0008			
44	Specification For lining		BK-GNRL-PEDCO-000-PI-SP-0007			
45	Fabrication and Inspection Requirements					
46	Inspection Authority	TPI & Client				
47	Material Certification	In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments				
48	Hydro Test Medium	Water	Hydro Test Procedure	Yes;Per Code & Spec. Requirements		
49	Post Weld Heat Treatment	Per Code & Spec. Requir.	PT	100%		
50	MT	100 % on Lifting Lug Fillet Welds	UT	Yes;Per Code & Spec. Requirements		
51	RT	100 % On T-Joints and Head Joints Butt-Welds,				
52		Spot On Shell Longitudinal and Circumferential Joints Butt-Welds,				
53		100 % On Nozzle Neck to Flange & Fabricated Nozzle Neck Longitudinal Butt-Welds,				
54	RT Report	Yes; Per Code & Spec. Requir.	PT Report	Yes;Per Code & Spec. Requirements		
55	MT Report	Yes; Per Code & Spec. Requir.	UT Report	Yes;Per Code & Spec. Requirements		
56	Fabrication Quality Control Plan (With Offer)		Yes			
57	Welding Procedure Review / Approval		Yes			
58	Surface Preparation & Coating		Specification for Painting with Doc. No. "BK-GNRL-PEDCO-PI-SP-0006"			
59			Specification For Lining, Doc. No.: "BK-GNRL-PEDCO-000-PI-SP-0007"			
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## احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

## MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره پیمان:

• 03 - • 73 - 9184

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Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 2 of 4

### ACCESSORIES , NOZZLES LIST & LOADS @ BASE

### Accessories & Attachments (Note 25)

Supporting Saddles	Yes	Name Plate Bracket	Yes
Access Ladder & Platform	Yes	Name Plate	Yes
Insulation Support		Earthing Lug <i>(Note 30)</i>	Yes
Insulation		Tailing Lug	
Insulation Cover		Cathodic Protection (Sacrificial Anodes)	
Fireproofing Support	Yes	Anchor Bolts	Yes
Lifting Lugs	Yes	Instrumentations	
Internal/ External Clips	Yes	Skid	
Tamplate		Support Clips	Yes
Boot		Vortex Breaker	Yes
Davit for Manhole	Yes	Rung & Grip	Yes
Internal Lining (By Painting)		Heating Coil	

### Nozzles List \* (Note 1)

 D01

Mark	Qty.	Description	Pipe			Flange			Proj. (mm)	Reinforcement		Remarks
			Size	Thk. *	Sch. *	Type	Rate.	Face	( <i>Note 32</i> )	Thk.	O.D.	
A	1	<i>Inlet</i>	2"	-	-	WN	#150	RF	SEE DWG			
B	1	<i>Blanketing</i>	2"	-	-	WN	#150	RF	SEE DWG			
V1	1	<i>Vent</i>	2"	-	-	WN	#150	RF	SEE DWG			
M	1	<i>Manhole</i>	20"	-	-	WN	#150	RF	SEE DWG			
S	1	<i>Utility Connection</i>	2"	-	-	WN	#150	RF	SEE DWG			
D	1	<i>Drain</i>	2"	-	-	WN	#150	RF	SEE DWG			
P1	1	<i>Pressure gauge</i>	2"	-	-	WN	#300	RF	SEE DWG			
L1,2	2	<i>Level Transmitter</i>	2"	-	-	WN	#300	RF	SEE DWG			
PH	1	<i>Pump Hole</i>	24"	-	-	WN	#150	RF	SEE DWG			
P2	1	<i>Pressure Transmitter</i>	2"			WN	#300	RF	SEE DWG			
PSV	1	<i>Pressure Safety Valve</i>	2"			WN	#300	RF	SEE DWG			
V2	1	<i>Ventilation</i>	4"	-	-	WN	#150	RF	SEE DWG			

D01

**Wind and Seismic Loads at Base \* *Note(9)***

[illegible]



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MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

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نوع مدرک

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0036

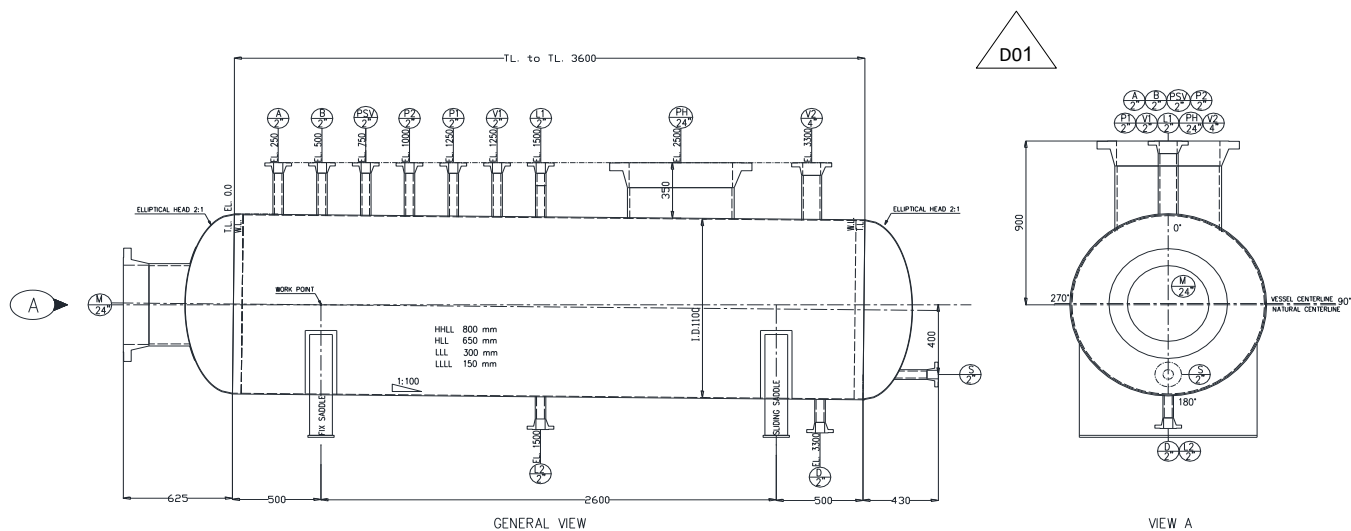
نسخه

D01

شماره صفحه: ۸ از ۷

Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 3 of 4

Sketch





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نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

بسته کاری

GCS

صادر کننده

PEDCO

تسهیلات

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رشته

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نسخه

D01

شماره صفحه: ۸ از ۸

Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 4 of 4

Rev.	WEIGHT						Rev.
1	<b>WEIGHT CONTROL DATA SHEET</b> SI UNIT *						1/1
2							
3							
4							
5							
6	Service : <i>Glycol Sump Drum</i>			Location : <i>Bushehr (Binak Oilfield)</i>			D01
7	Type :			Quotation No. :			
8	No. trains :			Serial No. :			
9	No. stages :						
10	Supplier :						
11	Manufacturer :						
12	Model :						
13	Note: Information to be completed by equipment vendor.						
14							
15							
16	Total weight (kg) *						
17	Fabrication	Erection	Operation	Hydrostatic Test	Removable internal	Ladder & Platform	
18							
19							
20							
21							
22							
23	WEIGHT AND C OF G DATA REQUIRED (9)						
24	CONDITION	WEIGHT ACCURACY %	WEIGHT (kg)	CENTER OF GRAVITY (mm)			
25				X	Y	Z	
26	Dry						
27							
28							
29							
30	SKETCH						
31							
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52	NOTES						
53	1) All lifting points to be load tested and certified.						
54	2) Any spreader beam to be load tested and certified.						
55	3) Lifting / rigging plan for skid mounted equipment to be provided by the Vendor.						
56							
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