

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							 	
	MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM								
شماره پیمان:	پروژه	بسته کاری	صادرکننده	تهیه کننده	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۱ از ۸
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0013	D01	

طرح نگهداشت و افزایش تولید ۲۷ مخزن

MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM

نگهداشت و افزایش تولید میدان نفتی بینک






D01	SEP. 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: 2

CLIENT Doc. Number: F0Z-708844



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

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM							 	
	شماره پیمان:	پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک		سریال
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0013	D01	شماره صفحه: ۸ از ۲

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	X				68					
5	X	X				69					
6	X	X				70					
7	X	X				71					
8	X	X				72					
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 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۸ از ۳
		BK	GCS	PEDCO	120	ME	DT	0013	D01	
General Notes										
Rev	D01									
	1. The Asterisk * denotes information and/or confirmation required from VENDOR. TJ: Confirmed									
	2. Deleted									
	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). TJ: Confirmed									
	4. Painting and coating (internal & external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0006. TJ: Confirmed									
D01	5. Flanges shall comply with ASME B16.5. Nozzle bolt holes shall straddle the natural centrelines for horizontal nozzles. VENDOR to confirm maximum allowable nozzle loads and moments (RF: Raised Face, WN: Welding Neck) TJ: Confirmed									
	6. 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". TJ: Confirmed									
	7. 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. TJ: Confirmed									
	8. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel. TJ: Confirmed									
	9. Loads at support base, Shall be calculated and determined by vendor. TJ: Confirmed									
	10. Access Ladder & Platform to be considered . TJ: Confirmed									
D01	11. Deleted									
	12. All material, corrosion allowance and their suitability for the process fluid at design pressure and temperature to be confirmed by vendor. TJ: Confirmed									
D01	13. Deleted									
D01	14. All nozzle locations and orientations to be finalized later. TJ: Confirmed									
	15. Instrumentation items are excluded from vendor's scope of supply. TJ: Confirmed									
	16. Any changes in material of construction, location & orientation of the nozzles shall be confirmed by client. TJ: Confirmed									
	17. All materials shall be new and unused. TJ: Confirmed									
	18. Fabrication tolerances for vessel shall be in accordance with requirement of ASME code. TJ: Confirmed									
	19. Location and number of lifting lugs on vessels shall be specified on VENDOR drawing. TJ: Confirmed									
	20. All items shall be clearly match marked against vessel drawings to facilitate erection. TJ: Confirmed									
D01	21. Deleted									
	22. Vendor shall supply details of all welding connections and give general specification of used materials. TJ: Confirmed									
	23. 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). TJ: Confirmed									
D01	24. Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Packing, Marking, Transportation Procedure Doc. No. "BK-GNRAL-PEDCO-000-QC-PR-0045". TJ: Confirmed									
	25. Specified accessories and attachments shall be supplied by vendor. TJ: Confirmed									
	26. Gasket shall be spiral wound type, graphite filled with inner ring and outer ring S.S.316 TJ: Confirmed									
D01	27. Deleted									
D01	28. Deleted									
D01	29. Two M12 earthing lugs shall be provided on vessel support. Material of Earthing lugs shall be S.S. 316 TJ: Confirmed									

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							 
	MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تهیه کننده	رشته	نوع مدرک	سرنال	نسخه
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0013	D01
								شماره صفحه: ۵ از ۸

Mechanical Data Sheets For Fuel Gas K.O. Drum (V-2205) / sheet 1 of 4

Rev	DATA SHEET					Rev
D01	1	Description : Fuel Gas K.O. Drum				D01
	2	Tag No. : V-2205		Quantity : 1 Set		
	3	Type : Pressure Vessel				
	4	Process Design Data				
	5	Contents		Corrosive / Erosive	CO2, H2S	
	6	Operating Temp. (°C)	18.88 -36.78	Liquid Flow (kg/h)		
	7	Operating Press. (barg)	4.9	Vap. Molec. Weight (kg/kmol)		
	8	Gas Flow (kg/h)		Liquid Sp. Gravity	0.005771	
	9	Liquid Viscosity (cP)		Service:	Sour Service	
	10	Mechanical Design Data				
	11	Design Temp. (°C)	85	Vessel Orientation	Vertical	
	12	Design Press. (barg)	9	HHLL (mm)	1100	
	13	Test Press. (barg)	Per Code & Specification	Nor. Liquid Vol. (m³)		
	14	Internal Vacuum (barg)	F.V.	In. Dia. Of Boots (mm)	N/A	
	15	In. Dia. of Shell (mm)	438	Boot Length (mm)	N/A	
	16	Tan/Tan Dim. (mm)	2950	Boot Head Type	N/A	
	17	Vessel Head Type	2:1 elliptical + flange	Corr. Allowance (mm)	6	
	18	Shell Wall Thk. (mm)	*(See DWG) TJ: 8 mm	Joint Efficiency	0.85 (Shell) / 1 (Head)	
	19	Head Wall Thk. (mm)	*(After Forming) TJ: 8 mm	Ambient Temp. (°C)		
	20	Seismic Design	Site Class: D, Code: ASCE 7-10	MDMT (°C)	3.24	
	21	Wind Design	Speed: 120 Km/hr (Max.), Code: ASCE 7-10	Insulation Required	No	
	22	Materials				
	23	Code	ASME II / ASTM	Nozzle Necks:		
	24	Shell	A 106 Gr B (18" Pipe, Sch. STD)	Pipes	A 106 Gr.B N	
	25	Heads	A 516 Gr. 60 N	Plates	A 516 Gr.60 N	
	26	Lining / Cladding		Forgings	A 105 N	
	27	Leg / Pad	A 516 Gr.60 N / A 283 Gr. C	Flanges	A 105 N	
	28	Platform Gratings	Hot Dip Galvanized C.S.	Fittings	A 234 Gr. WPB	
	29	Gaskets	Note 26	External Bolts	A 193 Gr. B7	
	30	Lifting Lugs	A 516 Gr.60 N / A 283 Gr. C	External Nuts	A 194 Gr. 2H	
	31	Reinforcing Pads	A 516 Gr.60 N	Internal (Removable)	S.S. 316	
	32	Ladder & Platform	C.S.	Internal (Fixed)	A 516 Gr.60 N	
	33	Name Plate	S.S. 316			
	34	REFERENCE STANDARDS & DOCUMENTS				
36	Mechanical Design Code	ASME Sec VIII Div 1, IPS-G-ME-150				
37	Specification for Pressure Vessels	BK-GNRL-PEDCO-000-ME-SP-0001				
38	Process Basis of Design	BK-GNRL-PEDCO-000-PR-DB-0001				
39	Piping & Instrument Diagram (P&ID)	BK-GCS-PEDCO-120-PR-PI-0022				
40	Specification for Painting	BK-GNRL-PEDCO-000-PI-SP-0006				
41	Specification for Insulation	BK-GNRL-PEDCO-000-PI-SP-0019				
42	Specification For Material Requirements in Sour service	BK-GNRL-PEDCO-000-PI-SP-0008 (Note 45)				
43	Fabrication and Inspection Requirements					
45	Inspection Authority	TPI & Client				
46	Material Certification	In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments				
47	Hydro Test Medium	Water	Hydro Test Procedure	Yes;Per Code & Spec. Requirements		
48	Post Weld Heat Treatment	Yes, Process Reason	PT	100%		
49	MT	100 % on Lifting Lug Fillet Welds	UT	Yes;Per Code & Spec. Requirements		
50	RT	Spot % On T-Joints and Head Joints Butt-Welds,				
52		100 % On Nozzle Neck to Flange & Fabricated Nozzle Neck Longitudinal Butt-Welds,				
53	RT Report	Yes; Per Code & Spec. Requir.	PT Report	Yes;Per Code & Spec. Requirements		
54	MT Report	Yes; Per Code & Spec. Requir.	UT Report	Yes;Per Code & Spec. Requirements		
55	Fabrication Quality Control Plan (With Offer)	Yes				
56	Welding Procedure Review / Approval	Yes				
57	Surface Preparation & Coating	Specification for Painting Doc. No. "BK-GNRL-PEDCO-000-PI-SP-0006"				
58		Specification for Lining Doc. No: "BK-GNRL-PEDCO-000-PI-SP-0007"				
59						
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MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D01	0013	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: ۶ از ۸

Mechanical Data Sheets For Fuel Gas K.O. Drum (V-2205) / sheet 2 of 4

Rev.	ACCESSORIES , NOZZLES LIST & LOADS @ BASE													Rev.
D01	1	Accessories & Attachments (Note 25)											D01	
	2	Supporting Leg	YES	Name Plate Bracket							YES			
	3	Access Ladder & Platform (Note 10)	YES	Name Plate							YES			
	4	Insulation Support	NO	Earthing Lug (Note 30)							YES			
	5	Insulation	NO	Tailing Lug							NO			
	6	Insulation Cover	NO	Cathodic Protection (Sacrificial Anodes)							NO			
	7	Fireproofing Support	NO	Anchor Bolts							NO			
	8	Lifting Lugs	YES	Instrumentations							NO			
	9	Internal Supports	YES	Skid							NO			
	10	Internal Impingement Baffle	YES	Vortex Breaker							YES			
	11	Internal Demistier Pad (Note 44)	YES	Davit for Body Flange							YES			
	12	Internal Lining	YES											
	13													
14														
15														
16														
17														
18	Nozzles List * (Note 1)											D01		
19	Mark	Qty.	Description	Pipe			Flange			Proj. (mm)	Reinforcement		Remarks	
20				Size	Thk.	Sch.	Type	Rate.	Face	(Note 32)	Thk.	O.D.		
21	A	1	Inlet	2"			WN	#150	RF	428.5				
22	B1	1	Gas Outlet	2"			WN	#150	RF	See DWG				
23	B2	1	Liquid Outlet	2"			WN	#150	RF	314.25				
24	Deleted													
25	H	1	Handhole	8"			WN	#150	RF	478.5	*	*	Note 6	
26	S	1	Utility Connection	2"			WN	#150	RF	428.5				
27	P1	1	Pressure Gauge	2"			WN	#300	RF	428.5				
28	P 2,3	2	PDG	2"			WN	#300	RF	428.5				
29	PSV	1	Pressure Safety Valve	2"			WN	#150	RF	428.5				
30	L 1,2	2	Stand Pipe	3"			WN	#150	RF	428.5				
31	L 3,4	2	Level Transmitter	2"			WN	#300	RF	428.5				
32	V	2"	Vent	2"			WN	#150	RF	See DWG				
33														
34														
35														
36														
37														
38														
39														
40														
41														
42														
43	Wind and Seismic Loads at Base * Note(9)													
44	 Load Type	Empty Condition			Operating Condition			Testing Condition						
45		Max. Shear @ Base (Kg)	Max. Moment @ Base (Kg.m)	Weight (Kg)	Max. Shear @ Base (Kg)	Max. Moment @ Base (Kg.m)	Weight (Kg)	Max. Shear @ Base (Kg)	Max. Moment @ Base (Kg.m)	Weight (Kg)				
46														
47														
48														
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50														
51	WIND													
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53	SEISMIC													
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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 FUEL GAS K.O. DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

پسته کاری

GCS

صادر کننده

PEDCO

تسهيلات

120

رشته

ME

نوع مدرک

DT

سريال

0013

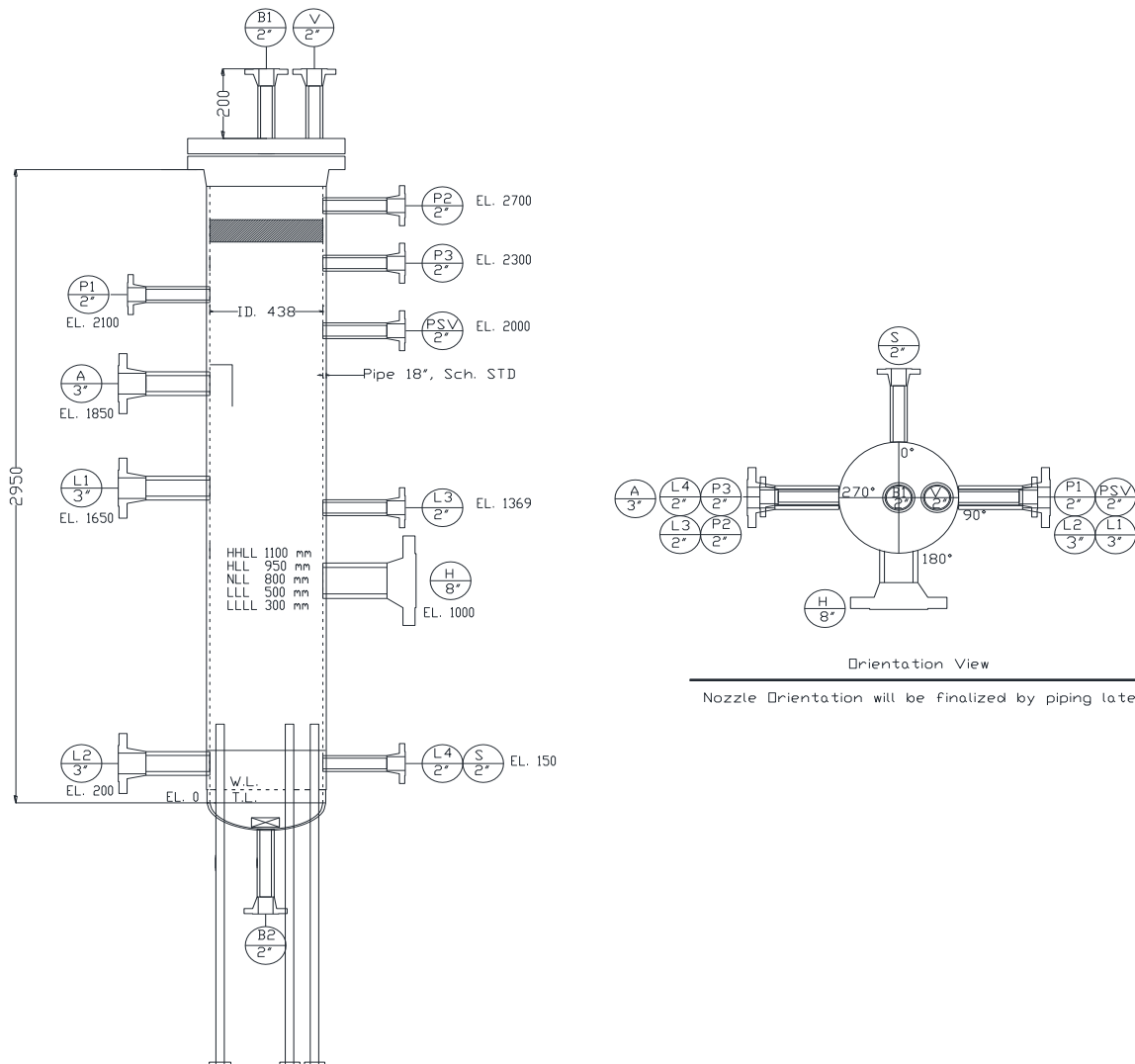
نسخه

D01

شماره صفحه: ۸ از ۷

Mechanical Data Sheets For Fuel Gas K.O. Drum (V-2205) / sheet 3 of 4

Sketch



Elevation View

Nozzle Elevation will be finalized by piping later.

All dimensions are in mm.



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0013	D01

شماره صفحه: ۸ از ۸

Mechanical Data Sheets For Fuel Gas K.O. Drum (V-2205) / sheet 4 of 4

Rev.	WEIGHT						Rev.
1	WEIGHT CONTROL DATA SHEET SI UNIT *					1/1	D01
2							
3							
4							
5							
6	Service :	Fuel Gas K.O. Drum			Location :	Bushehr (Binak Oilfield)	
7	Type :				Quotation No. :		
8	No. trains :				Serial No. :		
9	No. stages :						
10	Supplier :						
11	Manufacturer :						
12	Model :						
13							
14	Note: Information to be completed by equipment vendor.						
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 *						
24	CONDITION	WEIGHT ACCURACY %	WEIGHT (kg)	CENTER OF GRAVITY (mm)			
25				X	Y	Z	
26	Dry						
27							
28							
29							
30	SKETCH						
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51							
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.						
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