

 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 BK	بسته کاری GCS	صادرکننده PEDCO	تهیلات 120	رشته ME	نوع مدرک DT	سریال 0013	نسخه D01	شماره صفحه: ۱ از ۸

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: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته ME	نوع مدرک DT	سریال 0013	نسخه 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					
9						73					
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64						128					



General Notes	
Rev	D01
	<p>1. The Asterisk * denotes information and/or confirmation required from VENDOR.</p> <p>2. Deleted</p> <p>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).</p> <p>4. Painting and coating (internal & external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0006.</p> <p>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)</p> <p>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".</p> <p>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.</p> <p>8. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel.</p> <p>9. Loads at support base, Shall be calculated and determined by vendor.</p> <p>10. Access Ladder & Platform to be considered .</p> <p>D01 11. Deleted</p> <p>12. All material, corrosion allowance and their suitability for the process fluid at design pressure and temperature to be confirmed by vendor.</p> <p>D01 13. Deleted</p> <p>D01 14. All nozzle locations and orientations to be finalized later.</p> <p>15. Instrumentation items are excluded from vendor's scope of supply.</p> <p>16. Any changes in material of construction, location & orientation of the nozzles shall be confirmed by client.</p> <p>17. All materials shall be new and unused.</p> <p>18. Fabrication tolerances for vessel shall be in accordance with requirement of ASME code.</p> <p>19. Location and number of lifting lugs on vessels shall be specified on VENDOR drawing.</p> <p>20. All items shall be clearly match marked against vessel drawings to facilitate erection.</p> <p>D01 21. Deleted</p> <p>22. Vendor shall supply details of all welding connections and give general specification of used materials.</p> <p>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).</p> <p>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".</p> <p>25. Specified accessories and attachments shall be supplied by vendor.</p> <p>26. Gasket shall be spiral wound type, graphite filled with inner ring and outer ring S.S.316</p> <p>D01 27. Deleted</p> <p>D01 28. Deleted</p> <p>D01 29. Two M12 earthing lugs shall be provided on vessel support. Material of Earthing lugs shall be S.S. 316</p>

 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	تسهیلات	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
	1	Description : <i>Fuel Gas K.O. Drum</i>				
	2	Tag No. : <i>V-2205</i>		Quantity : <i>1 Set</i>		
	3	Type : <i>Pressure Vessel</i>				
	4	Process Design Data				
	5	Contents		Corrosive / Erosive	<i>CO2, H2S</i>	
	6	Operating Temp. (°C)	<i>18.88 -36.78</i>	Liquid Flow (kg/h)		
	7	Operating Press. (barg)	<i>4.9</i>	Vap. Molec. Weight (kg/kmol)		
	8	Gas Flow (kg/h)		Liquid Sp. Gravity	<i>0.005771</i>	
	9	Liquid Viscosity (cP)		Service:	<i>Sour Service</i>	
	10	Mechanical Design Data				
	11	Design Temp. (°C)	<i>85</i>	Vessel Orientation	<i>D01</i>	
	12	Design Press. (barg)	<i>9</i>	HHLL (mm)	<i>1100</i>	D01
	13	Test Press. (barg)	<i>Per Code & Specification</i>	Nor. Liquid Vol. (m³)		
D01	14	Internal Vacuum (barg)	<i>F.V.</i>	In. Dia. Of Boots (mm)	<i>N/A</i>	
	15	In. Dia. of Shell (mm)	<i>438</i>	Boot Length (mm)	<i>N/A</i>	
D01	16	Tan/Tan Dim. (mm)	<i>2950</i>	Boot Head Type	<i>N/A</i>	
	17	Vessel Head Type	<i>2:1 elliptical + flange</i>	Corr. Allowance (mm)	<i>6</i>	
D01	18	Shell Wall Thk. (mm)	<i>* (See DWG)</i>	Joint Efficiency	<i>0.85 (Shell) / 1 (Head)</i>	D01
D01	19	Head Wall Thk. (mm)	<i>* (After Forming)</i>	Ambient Temp. (°C)		
D01	20	Seismic Design	<i>Site Class: D, Code: ASCE 7-10</i>	MDMT (°C)	<i>3.24</i>	
D01	21	Wind Design	<i>Speed: 120 Km/hr (Max.), Code: ASCE 7-10</i>	Insulation Required	<i>No</i>	
	22	Materials				
D01	23	Code	<i>ASME II / ASTM</i>	Nozzle Necks:	<i>D01</i>	
D01	24	Shell	<i>A 106 Gr B (18" Pipe, Sch. STD)</i>	Pipes	<i>A 106 Gr.B N</i>	D01
D01	25	Heads	<i>A 516 Gr. 60 N</i>	Plates	<i>A 516 Gr.60 N</i>	D01
D01	26	Lining / Cladding		Forgings	<i>A 105 N</i>	D01
D01	27	Leg / Pad	<i>A 516 Gr.60 N / A 283 Gr. C</i>	Flanges	<i>A 105 N</i>	D01
	28	Platform Gratings	<i>Hot Dip Galvanized C.S.</i>	Fittings	<i>A 234 Gr. WPB</i>	D01
	29	Gaskets	<i>Note 26</i>	External Bolts	<i>A 193 Gr. B7</i>	D01
D01	30	Lifting Lugs	<i>A 516 Gr.60 N / A 283 Gr. C</i>	External Nuts	<i>A 194 Gr. 2H</i>	D01
D01	31	Reinforcing Pads	<i>A 516 Gr.60 N</i>	Internal (Removable)	<i>S.S. 316</i>	
	32	Ladder & Platform	<i>C.S.</i>	Internal (Fixed)	<i>A 516 Gr.60 N</i>	D01
	33	Name Plate	<i>S.S. 316</i>			
	34	REFERENCE STANDARDS & DOCUMENTS				
	36	Mechanical Design Code	<i>ASME Sec VIII Div 1, IPS-G-ME-150</i>			
	37	Specification for Pressure Vessels	<i>BK-GNRL-PEDCO-000-ME-SP-0001</i>			
	38	Process Basis of Design	<i>BK-GNRL-PEDCO-000-PR-DB-0001</i>			
	39	Piping & Instrument Diagram (P&ID)	<i>BK-GCS-PEDCO-120-PR-PI-0022</i>			
	40	Specification for Painting	<i>BK-GNRL-PEDCO-000-PI-SP-0006</i>			
	41	Specification for Insulation	<i>BK-GNRL-PEDCO-000-PI-SP-0019</i>			
	42	Specification For Material Requirements in Sour service	<i>BK-GNRL-PEDCO-000-PI-SP-0008 (Note 45)</i>			
	43	Fabrication and Inspection Requirements				
	44					
	45	Inspection Authority	<i>TPI & Client</i>			
	46	Material Certification	<i>In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments</i>			
	47	Hydro Test Medium	<i>Water</i>	Hydro Test Procedure	<i>Yes;Per Code & Spec. Requirements</i>	
	48	Post Weld Heat Treatment	<i>Yes, Process Reason</i>	PT	<i>100%</i>	
	49	MT	<i>100 % on Lifting Lug Fillet Welds</i>	UT	<i>Yes;Per Code & Spec. Requirements</i>	
	50	RT	<i>Spot % On T-Joints and Head Joints Butt-Welds,</i>			
	52		<i>100 % On Nozzle Neck to Flange & Fabricated Nozzle Neck Longitudinal Butt-Welds,</i>			
	53	RT Report	<i>Yes; Per Code & Spec. Requir.</i>	PT Report	<i>Yes;Per Code & Spec. Requirements</i>	
	54	MT Report	<i>Yes; Per Code & Spec. Requir.</i>	UT Report	<i>Yes;Per Code & Spec. Requirements</i>	
	55	Fabrication Quality Control Plan (With Offer)	<i>Yes</i>			
	56	Welding Procedure Review / Approval	<i>Yes</i>			
	57	Surface Preparation & Coating	<i>Specification for Painting Doc. No. "BK-GNRL-PEDCO-000-PI-SP-0006"</i>			
	58		<i>Specification for Lining Doc. No: "BK-GNRL-PEDCO-000-PI-SP-0007"</i>			
	59					
	60					
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	63					



احداث ردیف تراکم گاز در ایستگاه جمع آوری پینک

MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM



شماره صفحه: ۶ از ۸

شماره پیمان:

• 03 - • 73 - 9184

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

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

Rev.

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 Condition

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

49

50

Load Type

51

WIND

52

53

SEISMIC

54

55

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62

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64

65

Rev.



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

تسهیلات

120

رشته

ME

نوع مدرک

DT

سریال

0013

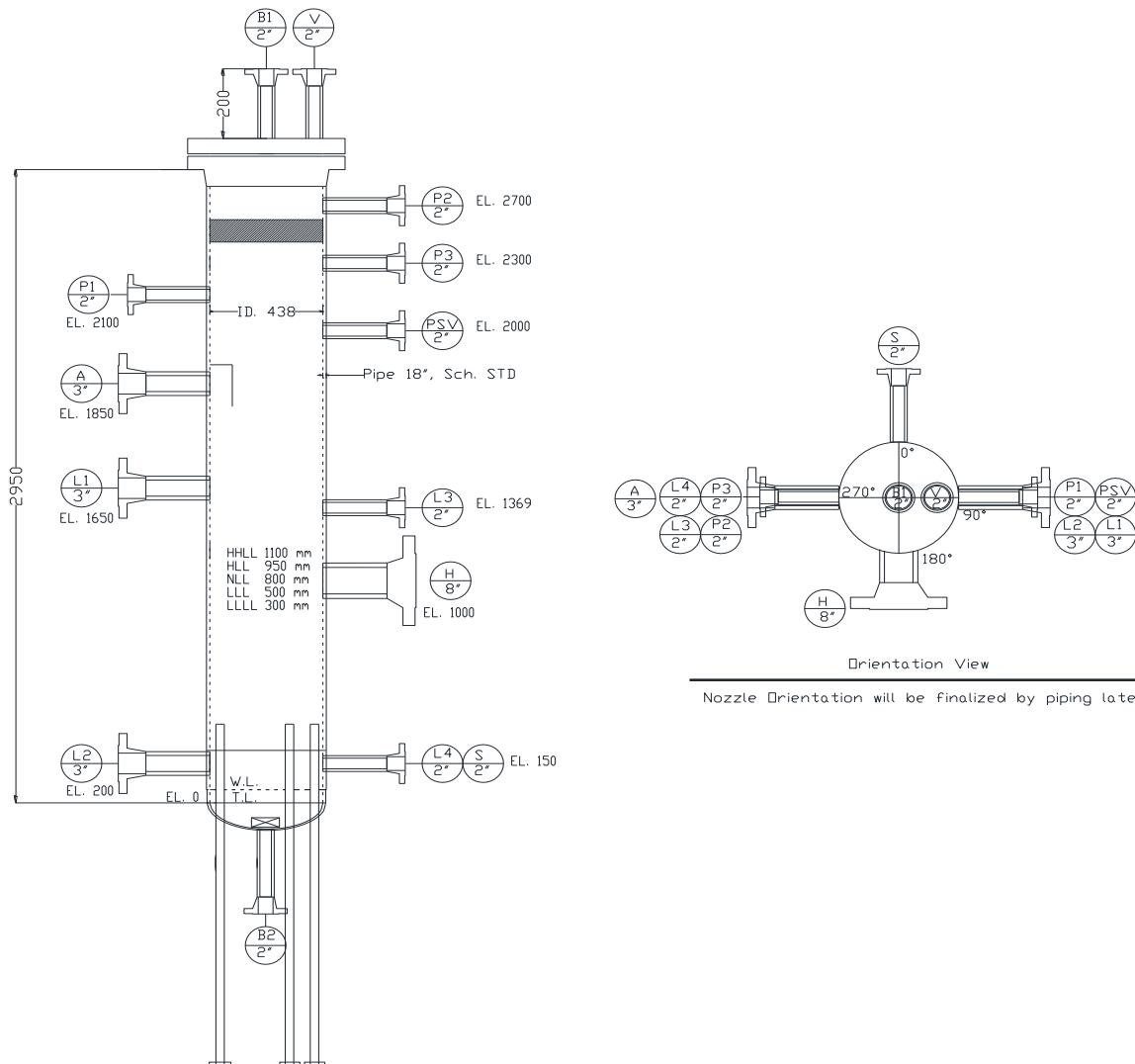
نسخه

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

پسته کاری

صادر کننده

تسهیلات

رشته

نوع مدرک

سریال

نسخه

شماره صفحه: ۸ از ۸

BK

GCS

PEDCO

120

ME

DT

0013

D01

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	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 *							
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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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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