
 <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>								
	MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته ME	نوع مدرک DT	سریال 0008	نسخه D01	شماره صفحه: ۸ از ۱

## طرح نگهداشت و افزایش تولید ۲۷ مخزن

### MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER

#### 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-708839

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 INSTRUMENT AIR RECEIVER</b>								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته ME	نوع مدرک DT	سریال 0008	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					
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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 INSTRUMENT AIR RECEIVER



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

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صادر کننده

تسهیلات

رشته

نوع مدرک

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General Notes

D01

Rev

1. The Asterisk \* denotes information and/or confirmation required from VENDOR.

D01 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).

D01 4. Painting and coating (internal & external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0006. and Specification For Lining Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0007 respectively.

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)

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".

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.

8. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel.

9. Loads at support base, Shall be calculated and determined by vendor.

10. Access Ladder & Platform to be considered .

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.

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 to 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. All materials shall be new and unused.

18. Fabrication tolerances for vessel shall be in accordance with requirement of ASME code.

19. Location and number of lifting lugs on vessels shall be specified on VENDOR drawing.

20. All items shall be clearly match marked against vessel drawings to facilitate erection.

D01 21. Deleted

22. Vendor shall supply details of all welding connections and give general specification of used materials.

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).

24. Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Minimum Requirements for Marking, Packing, Shipment & Storage' Document No. IPS-G-GN-210.

25. Specified accessories and attachments shall be supplied by vendor.

26. Gasket shall be spiral wound type, graphite filled with inner ring and outer ring S.S.316

D01 27. Deleted

D01 28. Deleted

29. Two M12 earthing bosses shall be provided on vessel support. Material of Earthing Bosses shall be S.S. 316



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

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General Notes (Cont'd)

D01

Rev

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.
- D01 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.
33. 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.
34. Nozzles and flanges shall be suitably supported and reinforced based on nozzle loads provided in project Specification for Pressure Vessels, Document No. BK-GNRAL-PEDCO-000-ME-SP-0001.
35. 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 surfaces. Flange faces shall be protected by wooden or plastic dummy flanges.
- D01 36. Minimum requirement for pre-commissioning, commissioning, start up and two years operation and spare parts shall be in accordance with document E&C-QC-SP-1.
37. 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.
38. Design pressure specified is at top of vessels. VENDOR design shall include static head for vessels flooded with specific gravity of the handled liquid.
39. VENDOR is to maximize shop fabrication based on the following transportation limits:  
- Maximum weight: 96 tonnes  
- Maximum load per axle: 12 tonnes  
- Maximum length: 50.0 m  
- Maximum width: 5.0 m  
- Maximum height: 5.2 m  
For items with dimensions and weights greater than the road capacity specified above, VENDOR may be required to split the package into several components.
40. All external attachments directly welded to the pressure part shall be the same material as vessel grade.
- D01 41. The Vendor shall be fully responsible for the complete mechanical design, preparing calculation book and supply of the vessel.
42. All dimensions shown are in mm unless otherwise indicated. All nozzle sizes are in inch.

 <b>NISOC</b>		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک <b>MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER</b>						 			
		شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴						شماره صفحه: ۵ از ۸			
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه		
		BK	GCS	PEDCO	120	ME	DT	0008	D01		
Mechanical Data Sheets For Instrument Air Receiver (V-2203) / sheet 1 of 4											
Rev	DATA SHEET										Rev
	1	Description : <i>Instrument Air Receiver</i>									
	2	Tag No. : <i>V-2203</i>				Quantity : <i>1 Set</i>					
	3	Type : <i>Pressure Vessel</i>									
	4	<b>Process Design Data</b> <span style="float: right;">D01</span>									
	5	Contents				Corrosive / Erosive					
	6	Operating Temp. (°C)		<i>65</i>		Liquid Flow (kg/h)					
	7	Operating Press. (barg)		<i>8</i>		Vap. Molec. Weight (kg/kmol)					
	8	Gas Flow (kg/h)				Liquid Sp. Gravity					
	9	Liquid Viscosity (cP)				Service:				<i>N/A</i>	
	10	<b>Mechanical Design Data</b> <span style="float: right;">D01</span>									
	11	Design Temp. (°C)		<i>85</i>		Vessel Orientation				<i>Vertical</i>	
D01	12	Design Press. (barg)		<i>12.5</i>		HHLL (mm)				<i>300</i>	
	13	Test Press. (barg)		<i>Per Code &amp; Spec Requirements</i>		Nor. Liquid Vol. (m³)					
	14	Internal Vacuum (barg)		<i>-</i>		In. Dia. Of Boots (mm)				<i>N/A</i>	
D01	15	In. Dia. of Shell (mm)		<i>1500</i>		Boot Length (mm)				<i>N/A</i>	
D01	16	Tan/Tan Dim. (mm)		<i>5000</i>		Boot Head Type				<i>N/A</i>	
	17	Vessel Head Type		<i>2:1 elliptical</i>		Corr. Allowance (mm)				<i>1.6</i>	
D01	18	Shell Wall Thk. (mm)		<i>*</i>		Joint Efficiency				<i>0.7 (Skirt)/0.85 (Shell) / 1 (Head)</i>	
D01	19	Head Wall Thk. (mm)		<i>*(After forming)</i>		Ambient Temp. (°C)					
	20	Seismic Design		<i>Zone: III, Code: ASCE 7-10</i>		MDMT (°C)				<i>5</i>	
	21	Wind Design		<i>Speed: 110 Km/hr (Max.), Code: ASCE 7-10</i>		Insulation Required				<i>-</i>	
	22	<b>Materials</b> <span style="float: right;">D01</span>									
D01	23	Code		<i>ASME II / ASTM</i>		Nozzle Necks:					
D01	24	Shell / Heads		<i>A 516 Gr. 70</i>		Pipes				<i>A 106 Gr.B</i>	
D01	25	Heads		<i>A 516 Gr. 70</i>		Plates				<i>A 516 Gr.70</i>	
	26	Lining / Cladding		<i>Epoxy Coating</i>		Forgings				<i>A 105</i>	
D01	27	Skirt (Top / Bottom)		<i>A 516 Gr. 70 / A 283 Gr. C</i>		Flanges				<i>A 105</i>	
	28	Platform Gratings		<i>Hot Dip Galvanized C.S.</i>		Fittings				<i>A 234 Gr. WPB</i>	
	29	Gaskets		<i>Note 26</i>		External Bolts				<i>A 193 Gr. B7 (Note 8)</i>	
D01	30	Lifting Lugs		<i>A 516 Gr.70 / A 283 Gr. C</i>		External Nuts				<i>A 194 Gr.2H (Note 8)</i>	
D01	31	Reinforcing Pads		<i>A 516 Gr.70</i>		Internal Bolts / Nuts				<i>S.S.</i>	
	32	Ladder & Platform		<i>C.S.</i>		Name Plate				<i>S.S. 316</i>	
	33	<b>REFERENCE STANDARDS &amp; DOCUMENTS</b>									
	34	Mechanical Design Code				<i>ASME Sec VIII Div 1, IPS-G-ME-150</i>					
	35	Specification for Pressure Vessels				<i>BK-GNRAL-PEDCO-000-ME-SP-0001</i>					
	36	Process Basis of Design				<i>BK-GNRAL-PEDCO-000-PR-DB-0001</i>					
	37	Piping & Instrument Diagram (P&ID)				<i>BK-GCS-PEDCO-120-PR-PI-0015</i>					
	38	Specification for Painting				<i>BK-GNRAL-PEDCO-000-PI-SP-0006</i>					
	39	Specification for Insulation				<i>BK-GNRAL-PEDCO-000-PI-SP-0019</i>					
	40	Specification For Material Requirements in Sour service				<i>BK-GNRAL-PEDCO-000-PI-SP-0008</i>					
	41										
	42	<b>Fabrication and Inspection Requirements</b>									
	43	Inspection Authority		<i>TPI &amp; Client</i>							
	44	Material Certification		<i>In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments</i>							
	45	Hydro Test Medium		<i>Water</i>		Hydro Test Procedure				<i>Yes; Per Code &amp; Spec. Requirements</i>	
	46	Post Weld Heat Treatment		<i>Per Code &amp; Spec. Requirements</i>		PT				<i>100%</i>	
	47	MT		<i>100 % on Lifting Lug Fillet Welds</i>		UT				<i>Yes; Per Code &amp; Spec. Requirements</i>	
	48	RT		<i>100 % On T-Joints and Head Joints Butt-Welds,</i>							
	49			<i>Spot On Shell Longitudinal and Circumferential Joints Butt-Welds,</i>							
	50			<i>100 % On Nozzle Neck to Flange &amp; Fabricated Nozzle Neck Longitudinal Butt-Welds,</i>							
	51	RT Report		<i>Yes; Per Code &amp; Spec. Require.</i>		PT Report				<i>Yes; Per Code &amp; Spec. Requirements</i>	
	52	MT Report		<i>Yes; Per Code &amp; Spec. Require.</i>		UT Report				<i>Yes; Per Code &amp; Spec. Requirements</i>	
	53	Fabrication Quality Control Plan (With Offer)									<i>Yes</i>
	54	Welding Procedure Review / Approval									<i>Yes</i>
	55	Surface Preparation & Coating		<i>Specification for Painting Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0006</i>							
	56			<i>Specification for Lining Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0007</i>							
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## احداث ردیف تہ اکم گاز در ایستگاه جمع آوری سنک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



**شماره پیمان:**

• 03 - • 73 - 9184

شماره صفحه: ۶ از ۸

Mechanical Data Sheets For Instrument Air Receiver (V-2203) / sheet 2 of 4

[illegible]



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

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0008

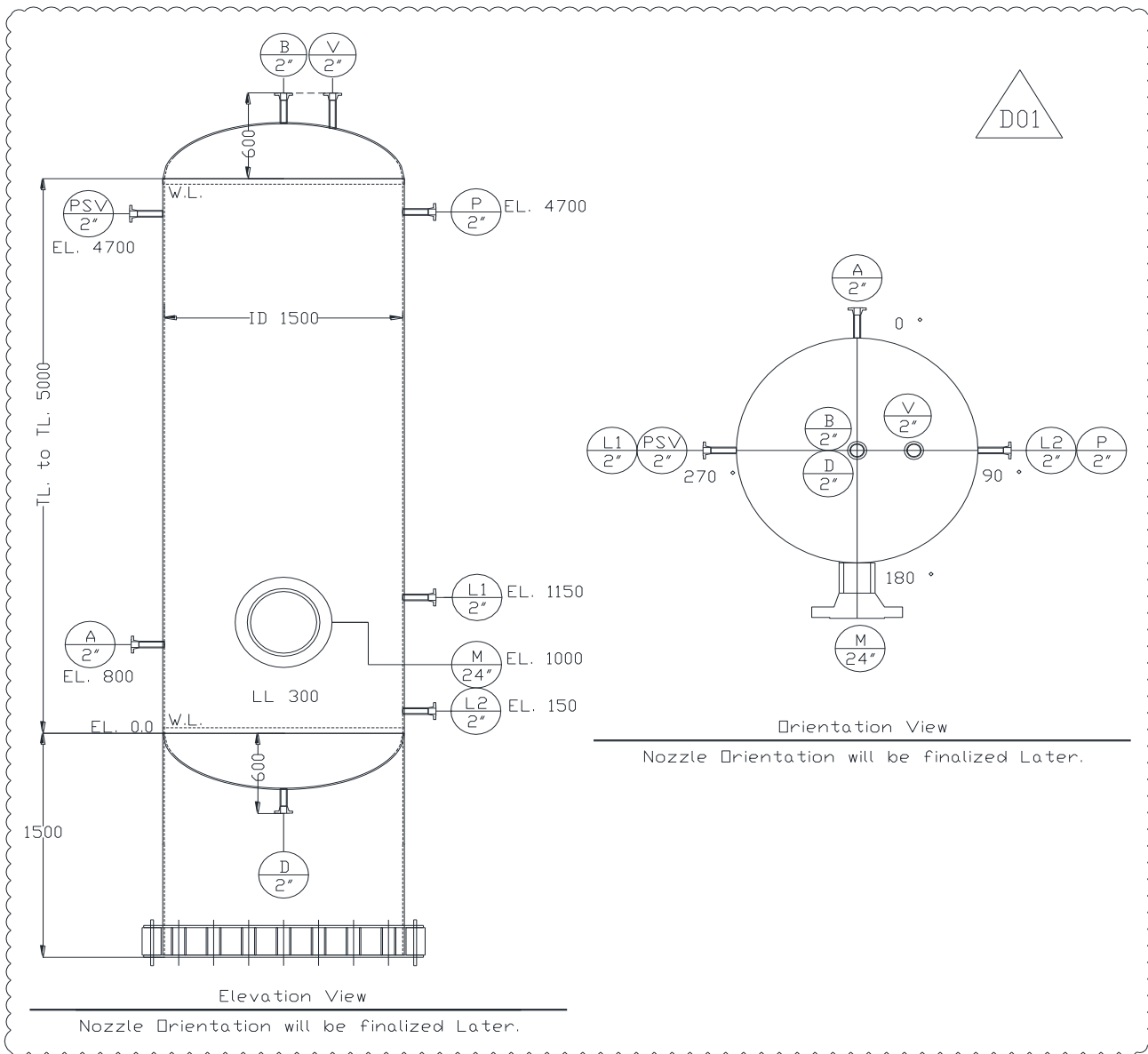
نسخه

D01

شماره صفحه: ۸ از ۷

Mechanical Data Sheets For Instrument Air Receiver (V-2203) / sheet 3 of 4

Sketch





نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



شماره پیمان:

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پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0008	D01

شماره صفحه: ۸ از ۸

Mechanical Data Sheets For Instrument Air Receiver (V-2203) / sheet 4 of 4

Rev.	WEIGHT						Rev.	
1	<b>WEIGHT CONTROL DATA SHEET</b> SI UNIT *					D01	1/1	D01
2								
3								
4								
5								
6	Service :	Instrument Air Receiver				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	<b>Total weight (kg) *</b>							
17	Fabrication		Erection		Operation		Hydrostatic Test	
18							Removable internal	
19							Ladder & Platform	
20								
21								
22								
23	<b>WEIGHT AND C OF G DATA REQUIRED *</b>							
24	CONDITION	WEIGHT ACCURACY %	WEIGHT (kg)	CENTER OF GRAVITY (mm)				
25				X	Y	Z		
26	Dry							
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30	<b>SKETCH</b>							
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52	<b>NOTES</b>							
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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