



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان:

053 - 073 - 9184

پروژه

BK

بسته کاری

GCS

صادر کننده

PEDCO

تسهیلات

120

رشته

IN

نوع مدرک

DT

سریال

0009

نسخه

D05

شماره صفحه: 1 از 37

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

نگهداشت و افزایش تولید میدان نفتی بینک

Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
D05	NOV.2024	AFC	P.Hajjsadeghi	M.Fakharian	M.Sadeghian	
D04	FEB.2024	AFC	P.Hajjsadeghi	M.Fakharian	S.Faramarzpour	
D03	OCT.2023	AFC	P.Hajjsadeghi	M.Fakharian	S.Faramarzpour	
D02	SEP.2023	AFC	P.Hajjsadeghi	M.Fakharian	A.M.Mohseni	
D01	OCT.2022	IFA	P.Hajjsadeghi	M.Fakharian	M.Mehrshad	
D00	MAY.2022	IFC	P.Hajjsadeghi	M.Fakharian	M.Mehrshad	

Class: 1

CLIENT Doc. Number: F9Z-708930

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 (will be finalized later)

AFQ: Approved For Quotation

IFI: Issued For Information

AB-R: As-Built for CLIENT Review

AB-A: As-Built -Approved



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شماره پیمان:

053 - 073 - 9184

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

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REVISION RECORD SHEET

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2	X	X	X	X	X
3	X	X	X		
4	X	X	X		X
5	X	X	X	X	X
6	X	X	X	X	X
7	X	X	X	X	X
8	X	X	X	X	X
9	X	X	X	X	X
10	X	X	X	X	X
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29	X	X	X	X	
30	X	X	X	X	X
31	X	X	X	X	X
32	X	X	X	X	X
33	X	X	X	X	X
34	X	X		X	
35	X	X			
36	X	X			
37	X	X			
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1	X				
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9	X				
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053 - 073 - 9184

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

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REFERENCE DOCUMENTS :

Specification For Instrumentation	BK-GNRAL-PEDCO-000-IN-SP-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001
Specification For Painting	BK-GNRAL-PEDCO-000-PI-SP-0006
Piping Material Specification	BK-GCS-PEDCO-120-PI-SP-0001
Specification For Pressure Safety Valves(PSV)	BK-GNRAL-PEDCO-000-IN-SP-0007
Instrument & Control System Design Criteria	BK-GCS-PEDCO-120-IN-DC-0002
Symbol & Legend For PFD and P&ID	BK-GCS-PEDCO-120-PR-PI-0001
P&ID - Gas Compression Inlet Gas Pipeline (Binak)	BK-GCS-PEDCO-120-PR-PI-0002
P&ID - Gas Compression Inlet Gas Pipeline (Golkhari)	BK-GCS-PEDCO-120-PR-PI-0003
P&ID - Slug Catcher System	BK-GCS-PEDCO-120-PR-PI-0004
P&ID - Gas Compression Inlet Knock Out Drum	BK-GCS-PEDCO-120-PR-PI-0005
P&ID - 1st Stage Gas Compression Suction Drums	BK-GCS-PEDCO-120-PR-PI-0006
P&ID - 1st Stage Gas Compression Compressors	BK-GCS-PEDCO-120-PR-PI-0007
P&ID - 1st Stage Gas Compression Air Coolers	BK-GCS-PEDCO-120-PR-PI-0008
P&ID - 2nd Stage Gas Compression Suction Drums	BK-GCS-PEDCO-120-PR-PI-0009
P&ID - 2nd Stage Gas Compression Compressors	BK-GCS-PEDCO-120-PR-PI-0010
P&ID - 2nd Stage Gas Compression Air Coolers	BK-GCS-PEDCO-120-PR-PI-0011
P&ID - 2nd Stage Gas Compression Discharge Drum	BK-GCS-PEDCO-120-PR-PI-0012
P&ID - Gas Compression Dehydration Package	BK-GCS-PEDCO-120-PR-PI-0013
P&ID - Lean Glycol Storage Tank	BK-GCS-PEDCO-120-PR-PI-0014
P&ID - Instrument & Plant Air System	BK-GCS-PEDCO-120-PR-PI-0015
P&ID - Nitrogen Generation System	BK-GCS-PEDCO-120-PR-PI-0016
P&ID - Close Drain System	BK-GCS-PEDCO-120-PR-PI-0017
P&ID - Corrosion Inhibitor Package	BK-GCS-PEDCO-120-PR-PI-0018
P&ID - Methanol Injection Package	BK-GCS-PEDCO-120-PR-PI-0019
P&ID - LP Flare System	BK-GCS-PEDCO-120-PR-PI-0020
P&ID - Oily Water Sewer	BK-GCS-PEDCO-120-PR-PI-0021
P&ID - Fuel Gas System	BK-GCS-PEDCO-120-PR-PI-0022
P&ID - Diesel Oil System	BK-GCS-PEDCO-120-PR-PI-0023
P&ID - Potable Water System	BK-GCS-PEDCO-120-PR-PI-0024
P&ID - Glycol Sump Drum	BK-GCS-PEDCO-120-PR-PI-0025
P&ID - Fire Water Network	BK-GCS-PEDCO-120-SA-PI-0001
P&ID - Total Flooding System For Extension of Existing Elect. Building	BK-GCS-PEDCO-120-SA-PI-0002



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شماره پیمان:

053 - 073 - 9184

پروژه

BK

بسته کاری

GCS

صادر کننده

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تسهیلات

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شماره صفحه:

GENERAL NOTES:

1- All valves shall be clearly and permanently marked. The name plate shall be corrosion resistant Stainless Steel and pinned to the valve body. Wired on labels are not acceptable. Following information shall be submitted on nameplate for approval.

- Tag number
- Manufacturer name, model and serial number
- Set Pressure
- Pressure rating
- Body size and material
- Measurement Range
- Liquid density
- Degree of protection & electrical construction
- Marking as per IEC Codes
- Well name

2- Calculation sheet using API RP-520 formula shall be provided by vendor for each safety/relief valve in accordance with process values.

3- All wetted part material shall be in accordance with ISO 15156-2 region 2 or NACE MR-01-75 as specified in data sheets for each tag . For these mentioned tags, both the compliance shall be provided.primary and secondary sides of valves shall meet NACE MR-01-75 requirements and certificate of

4- The safety/ relief valves shall comply with API RP 520, 521, 526 and 527 standards. All valves shall be supplied with ASME section VIII.

5- All valves shall be tested for leakage at the manufacturer's works in accordance with API 527. The procedures for these tests shall be submitted for approval.

6- Gasket material shall be suitable for the application.

7-The inlet/outlet sizes & rating and center to flange face dimensions for all valves shall be in accordance with API-526.

8- All the valves with the materials offered shall meet the set pressure and other design conditions for the orifice selected.

9-Vendor to advise all wetted parts materials include disc holder, stem guide, blowdown ring, ring pin, bushing and other internal components in contact with process fluid in bid stage

10 - Environmental condition for field instrumentation of Binak Oilfield shall be considered as per the followings:

Maximum ambient temperature: 50 (°C)
Minimum ambient temperature: 5 (°C)
Maximum steel surface exposed to sun: 85 (°C)
Maximum summer dry bulb: 50 (°C)
DB/RH for Summer HVAC Design: 41 °C / 61 %
DB for Winter HVAC Design: 6 °C

Relative Humidity:

- Maximum Design relative humidity (%): 100
- Minimum Design relative humidity (%): 0

11 - Material Test Certificate and calibration Certificate for all transmitters to be submitted by Vendor.

12- Body and other pressure parts subject to inlet pressure (primary pressure zone) shall be hydrostatically tested at a pressure of at least 1.5 times the design pressure of the parts

13- Safety relief valves shall be subject to a seat leakage test in accordance with API standard 527 as applicable, or as agreed upon by the manufacturer and the CLINET

14- Lifting lever shall be provided whenever the fluid to be relieved, is steam, air, or hot water (60°C and above)

15- Balanced bellows valves shall have open bonnet construction.

16- In valves with balancing bellow, the bonnet shall have a ½" threaded hole, NPT as per ANSI 1.20.1.

17- In bellows type, bonnet shall be vented separately from discharge.

18- Body color of Pressure & Safety Relief Valves shall be yellow. For more details refer to the latest revision of Specification For Painting Doc No. "BK-GNRAL-PEDCO-000-PI-SP-0006"

18- Body color of Pressure & Safety Relief Valves shall be yellow. For more details refer to the latest revision of Specification For Painting Doc No.

19- Allowable noise level shall be less than 115 dB(A) at 1 m distance from the valve as stated in IPS G-SF-900 sections 13.3.1 and 14.3.2.

20- As per specification for pressure safety valves (PSV) Doc. No.:"BK-GNRAL-PEDCO-000-IN-SP-0007", the spring material shall be as follows:

- Austenitic stainless steel for discharge temperature from -260° C to -60 °C.
- Cadmium plated carbon steel from -50 to 230° C.
- Nickel plated tungsten steel For above 230° C

D05



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D05	0009	DT	IN	120	PEDCO	GCS	BK

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PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2111			
	2	Service	GAS			
	3	Line No.	Vessel No.	GAS-111-0013-AN07-8"-PT (Via Reducer)		V-2104
	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm		BK-GCS-PEDCO-120-PR-PI-0004-D08 (1 of 2)
	5	Discharge to	To LP FLARE HEADER			
	6	Protect Equipment	-			
	7	Area Clacification	Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance	YES			
BASIS	9	Nozzle (Full, Semi)	Full Nozzle			
	10	Design Type	Safety, Relief, Safety-Relief	Safety		
	11		Conventional, bellows, Pilot Op.	Bellows		
12	Bonnet Type	Open				
PROCESS CONDITIONS	13	Fluid	GAS	Singel Phase		
	14	Required Capacity	37247.20	kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	48.1 kg/kmol	1.659	kg/m3
	16	Oper. Pressure	Set Pressure	5.3 /	9	bar-g
	17	Oper. Temperature	RelievingTemp.	32 /	284	°C
	18	Back Pressure	Constant	0.1	bar-g	
	19		Variable	bar-g		
	20		Total	3.4	bar-g	
	21	% Allowable Overpressure	21%			
	22	Over Pressure Factor	1.21			
	23	Compressibility Factor(Z)	0.95			
	24	Latent Heat of Vaporization (Kj/Kg)	427.9			
25	Ratio of Specific Heats(Cp/Cv)	1.223				
26	Density @ flowing temprature	8.355	kg/m3			
27	Operating Viscosity	0.0108	cP			
28	Barometric Pressure	13.26 ~ 14.37	psia			
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code	API 520			
	31	Fire	YES			
	32	Basis of Selection	FIRE			
	33	Calculated Area	MM ²	4134(VTC)		
	34	Required Area	MM ²	8742 (VTC)		
35	Orifice Designation	Q (VTC)				
CONNECTIONS	36	Size: Inlet	Outlet	6" in	8" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc (Trim)	SS316+PTFE (VTC)			
	40	Nozzle	SS316 (VTC)			
	41	Guide and Rings	VTA			
	42	Spring	Nickel plated tungsten steel (VTC)(Note20)			
	43	Bellows	SS316+PTFE (VTC)			
OPTIONS	44					
	45	Cap: Screwed or Bolted	Screwed			
	46	Lever: Plain or Packed	N/A			
	47	Test Gage	Yes			
	48	With Rupture Disc	No			
	49	Hydro Test	Required			
	50	Seat Leakage Test	Required			
51	Compliance Standard	N/A				
PURCHASE (will be finalized later)	52	Manufacturer	Will Be Finalized Later			
	53	Model	Will Be Finalized Later			
	54	Serial No.	Will Be Finalized Later			

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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شماره پیمان: 053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 6 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2112				
	2	Service	GAS				
	3	Line No.	Vessel No.	GAS-111-0014-AN07-8"-PT (Via Reducer)		V-2104	
	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm		BK-GCS-PEDCO-120-PR-PI-0004-D08 (1 of 2)	
	5	Discharge to	To FLARE				
	6	Protect Equipment	-				
	7	Area Clacification	Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 Compliance	YES				
BASIS	9	Nozzle (Full, Semi)	Full Nozzle				
	10	Design Type	Safety, Relief, Safety-Relief				
	11	Bonnet Type	Conventional, bellows, Pilot Op.				
	12	Bonnet Type	Open				
PROCESS CONDITIONS	13	Fluid	GAS		Singel Phase		
	14	Required Capacity	37247.20		kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	48.1	kg/kmol	1.659	kg/m3
	16	Oper. Pressure	Set Pressure	5.3	/	9	bar-g
	17	Oper. Temperature	RelievingTemp.	32	/	284	°C
	18	Back Pressure	Constant	0.1		bar-g	
	19		Variable			bar-g	
	20		Total	3.4		bar-g	
	21	% Allowable Overpressure	21%				
	22	Over Pressure Factor	1.21				
	23	Compressibility Factor(Z)	0.95				
	24	Latent Heat of Vaporization (Kj/Kg)	427.9				
25	Ratio of Specific Heats(Cp/Cv)	1.223					
26	Density @ flowing temprature	8.355		kg/m3			
27	Operating Viscosity	0.0108		cP			
28	Barometric Pressure	13.26 ~ 14.37		psia			
SELECTION	29	Design Code	Sizing Basis	API 520	-		
	30	Construction Code	API 520				
	31	Fire	YES				
	32	Basis of Selection	FIRE				
	33	Calculated Area	MM ²	4134(VTC)			
	34	Required Area	MM ²	8742 (VTC)			
35	Orifice Designation	Q (VTC)					
CONNECTIONS	36	Size: Inlet	Outlet	6" in	8" in		
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF		
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)				
	39	Seat and Disc	SS316+PTFE (VTC)				
	40	Nozzle	SS316 (VTC)				
	41	Guide and Rings	VTA				
	42	Spring	Nickel plated tungsten steel (VTC)(Note20)				
	43	Bellows	SS316+PTFE (VTC)				
OPTIONS	44						
	45	Cap: Screwed or Bolted	Screwed				
	46	Lever: Plain or Packed	N/A				
	47	Test Gage	Yes				
	48	With Rupture Disc	No				
	49	Hydro Test	Required				
	50	Seat Leakage Test	Required				
51	Compliance Standard	N/A					
PURCHASE (will be finalized later)	52	Manufacturer	Will Be Finalized Later				
	53	Model	Will Be Finalized Later				
	54	Serial No.	Will Be Finalized Later				

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 7 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2113		D05	
	2	Service	GAS			
	3	Line No.	Vessel No.	GAS-111-0021-AN07-6"-PT (Via Reducer)		V-2105
	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm		BK-GCS-PEDCO-120-PR-PI-0005_D08
	5	Discharge to	To FLARE			
	6	Protect Equipment	-			
	7	Area Clacification	Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance	Yes			
BASIS	9	Nozzle (Full, Semi)	Full Nozzle			
	10	Design Type	Safety, Relief, Safety-Relief			
	11	Bonnet Type	Conventional, bellows, Pilot Op.			
	12	Bonnet Type	Open			
PROCESS CONDITIONS	13	Fluid	GAS		Singel Phase	
	14	Required Capacity	17833.1		kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52	kg/kmol	0.846
	16	Oper. Pressure	Set Pressure	5.1	bar-g	9
	17	Oper. Temperature	RelievingTemp.	36.92	°C	36.92
	18	Back Pressure	Constant	0.1	bar-g	
	19		Variable		bar-g	
	20		Total	1.26	bar-g	
	21	% Allowable Overpressure	10%			
	22	Over Pressure Factor	1.10			
	23	Compressibility Factor(Z)	0.954			
	24	Latent Heat of Vaporization (Kj/Kg)	-			
25	Ratio of Specific Heats(Cp/Cv)	1.246				
26	Density @ flowing temprature	5.970	kg/m3			
27	Operating Viscosity	0.011	cP			
28	Barometric Pressure	13.26 ~ 14.37	psia			
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code	API 520			
	31	Fire	NO			
	32	Basis of Selection	Blocked Outlet			
	33	Calculated Area	MM ²	2240.6	(VTC)	
	34	Required Area	MM ²	3421	(VTC)	
35	Orifice Designation	N (VTC)				
CONNECTIONS	36	Size: Inlet	Outlet	4" in	6" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc	SS316+PTFE (VTC)			
	40	Nozzle	SS316 (VTC)			
	41	Guide and Rings	VTA			
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows	SS316+PTFE (VTC)			
OPTIONS	44					
	45	Cap: Screwed or Bolted	Screwed			
	46	Lever: Plain or Packed	N/A			
	47	Test Gage	Yes			
	48	With Rupture Disc	No			
	49	Hydro Test	Required			
	50	Seat Leakage Test	Required			
51	Compliance Standard	N/A				
PURCHASE (will be finalized later)	52	Manufacturer	Will Be Finalized Later			
	53	Model	Will Be Finalized Later			
	54	Serial No.	Will Be Finalized Later			

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 8 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2114			
	2	Service	GAS			
	3	Line No.	Vessel No.	GAS-111-0022-AN07-6"-PT (Via Reducer)		V-2105
	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm		BK-GCS-PEDCO-120-PR-PI-0005_D08
	5	Discharge to	To FLARE			
	6	Protect Equipment	-			
	7	Area Clacification	Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance	Yes			
BASIS	9	Nozzle (Full, Semi)	Full Nozzle			
	10	Design Type	Safety, Relief, Safety-Relief	Safety		
	11		Conventional, bellows, Pilot Op.	Bellows		
12	Bonnet Type	Open				
PROCESS CONDITIONS	13	Fluid	GAS	Singel Phase		
	14	Required Capacity	17833.1	kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52	kg/kmol	
	16	Oper. Pressure	Set Pressure	5.1	bar-g	
	17	Oper. Temperature	RelievingTemp.	36.92	°C	
	18	Back Pressure	Constant	0.1	bar-g	
	19		Variable		bar-g	
	20		Total	1.2	bar-g	
	21	% Allowable Overpressure	10%			
	22	Over Pressure Factor	1.10			
	23	Compressibility Factor(Z)	0.954			
	24	Latent Heat of Vaporization (Kj/Kg)	-			
25	Ratio of Specific Heats(Cp/Cv)	1.246				
26	Density @ flowing temprature	5.970	kg/m3			
27	Operating Viscosity	0.011	cP			
28	Barometric Pressure	13.26 ~ 14.37	psia			
SELECTION	29	Design Code	Sizing Basis	API 520		
	30	Construction Code	API 520			
	31	Fire	NO			
	32	Basis of Selection	Blocked Outlet			
	33	Calculated Area	MM ²	2240.6 (VTC)		
	34	Required Area	MM ²	3421 (VTC)		
35	Orifice Designation	N (VTC)				
CONNECTIONS	36	Size: Inlet	Outlet	4" in		
	37	Rating & Facing :In	Outlet	#300 FLANGED RF		
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc	SS316+PTFE (VTC)			
	40	Nozzle	SS316 (VTC)			
	41	Guide and Rings	VTA			
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows	SS316+PTFE (VTC)			
OPTIONS	44					
	45	Cap: Screwed or Bolted	Screwed			
	46	Lever: Plain or Packed	N/A			
	47	Test Gage	Yes			
	48	With Rupture Disc	No			
	49	Hydro Test	Required			
PURCHASE (will be finalized later)	50	Seat Leakage Test	Required			
	51	Compliance Standard	N/A			
	52	Manufacturer	Will Be Finalized Later			
	53	Model	Will Be Finalized Later			
	54	Serial No.	Will Be Finalized Later			

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

شماره پیمان:

پروژه

BK

GCS

صادر کننده

PEDCO

تسهیلات

120

رشته

IN

وع مدرک

DT

سریال

0009

نسخه

D05

شماره صفحه: 9 از 37

PRESSURE SAFETY VALVE

		PSV-2121A		D05		
GENERAL	1	Tag Number		PSV-2121A		
	2	Service		GAS		
	3	Line No.	Vessel No.	GAS-111-0029A-CN05-2"-PT (Via Reducer)	V-2101A	
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm	BK-GCS-PEDCO-120-PR-PI-0006_D08 (1 OF 3)	
	5	Discharge to		To FLARE		
	6	Protect Equipment		-		
	7	Area Clacification		Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance		YES		
BASIS	9	Nozzle (Full, Semi)		Full Nozzle		
	10	Safety, Relief, Safety-Relief		Safety		
	11	Design Type	Conventional, bellows, Pilot Op.	Bellows		
	12	Bonnet Type		Open		
PROCESS CONDITIONS	13	Fluid	State	GAS	Singel Phase	
	14	Required Capacity		2166.00	kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.55	kg/kmol	0.847
	16	Oper. Pressure	Set Pressure	4.9	bar-g	22
	17	Oper. Temperature	RelievingTemp.	60	°C	60
	18	Back Pressure	Constant	0.1	bar-g	
	19		Variable		bar-g	
	20		Total	0.18	bar-g	
	21	% Allowable Overpressure		10%		
	22	Over Pressure Factor		1.10		
	23	Compressibility Factor(Z)		0.822		
	24	Latent Heat of Vaporization (Kj/Kg)		-		
	25	Ratio of Specific Heats(Cp/Cv)		1.457		
26	Density @ flowing temprature		5.770	kg/m3		
27	Operating Viscosity		0.011	cP		
28	Barometric Pressure		13.26 ~ 14.37	psia		
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code		API 520		
	31	Fire		YES		
	32	Basis of Selection		Control Valve Failure		
	33	Calculated Area	MM ²	117.51	(VTC)	
	34	Required Area	MM ²	153.938	(VTC)	D05
CONNECTIONS	35	Orifice Designation		E (VTC)		
	36	Size: Inlet	Outlet	1" in	2" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc		SS316+PTFE (VTC)		
	40	Nozzle		SS316 (VTC)		
	41	Guide and Rings		VTA		
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)		
	43	Bellows		SS316+PTFE (VTC)		
OPTIONS	44					
	45	Cap: Screwed or Bolted		Screwed		
	46	Lever: Plain or Packed		N/A		
	47	Test Gage		Yes		
	48	With Rupture Disc		No		
	49	Hydro Test		Required		
	50	Seat Leakage Test		Required		
PURCHASE (will be finalized later)	51	Compliance Standard		N/A		
	52	Manufacturer		Will Be Finalized Later		
	53	Model		Will Be Finalized Later		
	54	Serial No.		Will Be Finalized Later		

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 10 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2121B			
	2	Service	GAS			
	3	Line No.	Vessel No.	GAS-111-0029B-CN05-2"-PT (Via Reducer)		V-2101B
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0006_D08 (2 OF 3)
	5	Discharge to	To FLARE			
	6	Protect Equipment	-			
	7	Area Clacification	Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance	YES			
BASIS	9	Nozzle (Full, Semi)	Full Nozzle			
	10	Design Type	Safety, Relief, Safety-Relief			
	11	Bonnet Type	Conventional, bellows, Pilot Op.			
	12	Bonnet Type	Open			
PROCESS CONDITIONS	13	Fluid	GAS		Singel Phase	
	14	Required Capacity	2166.00		kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.55	kg/kmol	0.847
	16	Oper. Pressure	Set Pressure	4.9	bar-g	22
	17	Oper. Temperature	RelievingTemp.	60	°C	60
	18	Back Pressure	Constant	0.1	bar-g	
	19		Variable		bar-g	
	20		Total	0.18	bar-g	
	21	% Allowable Overpressure			10%	
	22	Over Pressure Factor			1.10	
	23	Compressibility Factor(Z)			0.822	
	24	Latent Heat of Vaporization (Kj/Kg)			-	
	25	Ratio of Specific Heats(Cp/Cv)			1.457	
26	Density @ flowing temprature	5.770	kg/m3			
27	Operating Viscosity	0.011	cP			
28	Barometric Pressure	13.26 ~ 14.37	psia			
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code	API 520			
	31	Fire	YES			
	32	Basis of Selection	Control Valve Failure			
	33	Calculated Area	MM ²	117.51 (VTC)		
	34	Required Area	MM ²	153.938 (VTC)		
	35	Orifice Designation	E (VTC)			
CONNECTIONS	36	Size: Inlet	Outlet	1" in	2" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc	SS316+PTFE (VTC)			
	40	Nozzle	SS316 (VTC)			
	41	Guide and Rings	VTA			
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows	SS316+PTFE (VTC)			
OPTIONS	44					
	45	Cap: Screwed or Bolted	Screwed			
	46	Lever: Plain or Packed	N/A			
	47	Test Gage	Yes			
	48	With Rupture Disc	No			
	49	Hydro Test	Required			
	50	Seat Leakage Test	Required			
	51	Compliance Standard	N/A			
PURCHASE (will be finalized later)	52	Manufacturer	Will Be Finalized Later			
	53	Model	Will Be Finalized Later			
	54	Serial No.	Will Be Finalized Later			

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 11 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2121C			
	2	Service	GAS			
	3	Line No.	Vessel No.	GAS-111-0029C-CN05-2"-PT (Via Reducer)		V-2101C
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0006_D08 (3 OF 3)
	5	Discharge to	To FLARE			
	6	Protect Equipment	-			
	7	Area Clacification	Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance	YES			
BASIS	9	Nozzle (Full, Semi)	Full Nozzle			
	10	Design Type	Safety, Relief, Safety-Relief			
	11	Bonnet Type	Conventional, bellows, Pilot Op.			
PROCESS CONDITIONS	12	Bonnet Type	Open			
	13	Fluid	GAS	Singel Phase		
	14	Required Capacity	2166.00	kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.55 kg/kmol	0.847 kg/m3	
	16	Oper. Pressure	Set Pressure	4.9 /	22 bar-g	
	17	Oper. Temperature	RelievingTemp.	60 /	60 °C	
	18	Back Pressure	Constant	0.1	bar-g	
	19		Variable		bar-g	
	20		Total	0.18	bar-g	
	21	% Allowable Overpressure	10%			
	22	Over Pressure Factor	1.10			
	23	Compressibility Factor(Z)	0.822			
	24	Latent Heat of Vaporization (Kj/Kg)	-			
	25	Ratio of Specific Heats(Cp/Cv)	1.457			
26	Density @ flowing temprature	5.770	kg/m3			
27	Operating Viscosity	0.011	cP			
28	Barometric Pressure	13.26 ~ 14.37	psia			
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code	API 520			
	31	Fire	YES			
	32	Basis of Selection	Control Valve Failure			
	33	Calculated Area	MM ²	117.51 (VTC)		
	34	Required Area	MM ²	153.938 (VTC)		
CONNECTIONS	35	Orifice Designation	E (VTC)			
	36	Size: Inlet	Outlet	1" in	2" in	
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc	SS316+PTFE (VTC)			
	40	Nozzle	SS316 (VTC)			
	41	Guide and Rings	VTA			
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows	SS316+PTFE (VTC)			
OPTIONS	44					
	45	Cap: Screwed or Bolted	Screwed			
	46	Lever: Plain or Packed	N/A			
	47	Test Gage	Yes			
	48	With Rupture Disc	No			
	49	Hydro Test	Required			
PURCHASE (will be finalized later)	50	Seat Leakage Test	Required			
	51	Compliance Standard	N/A			
	52	Manufacturer	Will Be Finalized Later			
	53	Model	Will Be Finalized Later			
	54	Serial No.	Will Be Finalized Later			

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 37 از 12

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2131A		D05	
	2	Service	GAS			
	3	Line No.	Vessel No.	GAS-111-0042A-CN05-2"-PT (Via Reducer)		
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm BK-GCS-PEDCO-120-PR-PI-0009_D08 (1 OF 3)		
	5	Discharge to	To FLARE			
	6	Protect Equipment				
	7	Area Clacification	Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance	YES			
BASIS	9	Nozzle (Full, Semi)	Full Nozzle			
	10	Design Type	Safety, Relief, Safety-Relief			
	11	Bonnet Type	Conventional, bellows, Pilot Op.			
	12	Bonnet Type	Open			
PROCESS CONDITIONS	13	Fluid	GAS		Singel Phase	
	14	Required Capacity	982.27		kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52	kg/kmol	0.85
	16	Oper. Pressure	Set Pressure	18.1	bar-g	22
	17	Oper. Temperature	RelievingTemp.	60	°C	208
	18	Back Pressure	Constant	0.1	bar-g	
	19		Variable		bar-g	
	20		Total	3.4	bar-g	
	21	% Allowable Overpressure	21%			
	22	Over Pressure Factor	1.21			
	23	Compressibility Factor(Z)	0.936			
	24	Latent Heat of Vaporization (Kj/Kg)				
25	Ratio of Specific Heats(Cp/Cv)	1.278				
26	Density @ flowing temprature	18.08	kg/m3			
27	Operating Viscosity	0.013	cP			
28	Barometric Pressure	13.26 ~ 14.37	psia			
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code	API 520			
	31	Fire	YES			
	32	Basis of Selection	FIRE			
	33	Calculated Area	MM ²	59.62	(VTC)	
	34	Required Area	MM ²	153.93	(VTC)	
CONNECTIONS	35	Orifice Designation	D (VTC)			
	36	Size: Inlet	Outlet	1" in	2" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc	SS316+RPTFE			
	40	Nozzle	316 SS			
	41	Guide and Rings	VTA			
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows	SS316+PTFE (VTC)			
OPTIONS	44					
	45	Cap: Screwed or Bolted	Screwed			
	46	Lever: Plain or Packed	N/A			
	47	Test Gage	Yes			
	48	With Rupture Disc	No			
	49	Hydro Test	Required			
	50	Seat Leakage Test	Required			
PURCHASE (will be finalized later)	51	Compliance Standard	N/A			
	52	Manufacturer	Will Be Finalized Later			
	53	Model	Will Be Finalized Later			
	54	Serial No.	Will Be Finalized Later			

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

053 - 073 - 9184

شماره پیمان:

پروژه

بسته کاری

صادر کننده

تسهیلات

رشته

وع مدرک

سریال

نسخه

D05

0009

D05

37

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شماره صفحه:

PRESSURE SAFETY VALVE

		PSV-2131B		D05	
GENERAL	1	Tag Number		PSV-2131B	
	2	Service		GAS	
	3	Line No.	Vessel No.	GAS-111-0042B-CN05-2"-PT (Via Reducer)	
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm BK-GCS-PEDCO-120-PR-PI-0009_D08 (2 OF 3)	
	5	Discharge to		To FLARE	
	6	Protect Equipment		-	
	7	Area Clacification		Zone 2, IIB T4	
	8	NACE MR0175/ISO 15156 Compliance		YES	
BASIS	9	Nozzle (Full, Semi)		Full Nozzle	
	10	Design Type		Safety	
	11	Bonnet Type		Open	
	12	Safety, Relief, Safety-Relief		Safety	
PROCESS CONDITIONS	13	Fluid	State	GAS Singel Phase	
	14	Required Capacity		982.27 kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol 0.85 kg/m3	
	16	Oper. Pressure	Set Pressure	18.1 / 22 bar-g	
	17	Oper. Temperature	RelievingTemp.	60 / 208 °C	
	18	Back Pressure	Constant	0.1 bar-g	
	19		Variable	bar-g	
	20		Total	3.4 bar-g	
	21	% Allowable Overpressure		21%	
	22	Over Pressure Factor		1.21	
	23	Compressibility Factor(Z)		0.936	
	24	Latent Heat of Vaporization (Kj/Kg)		-	
	25	Ratio of Specific Heats(Cp/Cv)		1.278	
	26	Density @ flowing temprature		18.08 kg/m3	
27	Operating Viscosity		0.013 cP		
28	Barometric Pressure		13.26 ~ 14.37 psia		
SELECTION	29	Design Code	Sizing Basis	API 520 -	
	30	Construction Code		API 520	
	31	Fire		YES	
	32	Basis of Selection		FIRE	
	33	Calculated Area	MM ²	59.62 (VTC)	
	34	Required Area	MM ²	153.93 (VTC)	
	35	Orifice Designation		D (VTC)	
CONNECTIONS	36	Size: Inlet	Outlet	1" in 2" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF #150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)	
	39	Seat and Disc		SS316+RPTFE	
	40	Nozzle		316 SS	
	41	Guide and Rings		VTA	
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)	
	43	Bellows		SS316+PTFE (VTC)	
	44				
OPTIONS	45	Cap: Screwed or Bolted		Screwed	
	46	Lever: Plain or Packed		N/A	
	47	Test Gage		Yes	
	48	With Rupture Disc		No	
	49	Hydro Test		Required	
	50	Seat Leakage Test		Required	
	51	Compliance Standard		N/A	
PURCHASE (will be finalized later)	52	Manufacturer		Will Be Finalized Later	
	53	Model		Will Be Finalized Later	
	54	Serial No.		Will Be Finalized Later	

Notes:

VTA : Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage

N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 37 از 14

PRESSURE SAFETY VALVE

		PSV-2131C		D05	
GENERAL	1	Tag Number		GAS	
	2	Service		GAS	
	3	Line No.	Vessel No.	GAS-111-0042C-CN05-2"-PT (Via Reducer)	
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm BK-GCS-PEDCO-120-PR-PI-0009_D08 (3 OF 3)	
	5	Discharge to		To FLARE	
	6	Protect Equipment		-	
	7	Area Clacification		Zone 2, IIB T4	
	8	NACE MR0175/ISO 15156 Compliance		YES	
BASIS	9	Nozzle (Full, Semi)		Full Nozzle	
	10	Design Type	Safety, Relief, Safety-Relief	Safety	
	11		Conventional, bellows, Pilot Op.	Bellows	
	12	Bonnet Type		Open	
PROCESS CONDITIONS	13	Fluid	State	GAS Singel Phase	
	14	Required Capacity		982.27 kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.52 kg/kmol 0.85 kg/m3	
	16	Oper. Pressure	Set Pressure	18.1 / 22 bar-g	
	17	Oper. Temperature	RelievingTemp.	60 / 208 °C	
	18	Back Pressure	Constant	0.1 bar-g	
	19		Variable	D05 bar-g	
	20		Total	3.4 bar-g	
	21	% Allowable Overpressure		21%	
	22	Over Pressure Factor		1.21	
	23	Compressibility Factor(Z)		0.936	
	24	Latent Heat of Vaporization (Kj/Kg)		-	
25	Ratio of Specific Heats(Cp/Cv)		1.278		
26	Density @ flowing temprature		18.80 kg/m3		
27	Operating Viscosity		0.013 cP		
28	Barometric Pressure		13.26 ~ 14.37 psia		
SELECTION	29	Design Code	Sizing Basis	API 520 -	
	30	Construction Code		API 520	
	31	Fire		YES	
	32	Basis of Selection		FIRE	
	33	Calculated Area	MM ²	59.62 (VTC)	
	34	Required Area	MM ²	153.93 (VTC)	
	35	Orifice Designation		D (VTC)	
CONNECTIONS	36	Size: Inlet	Outlet	1" in 2" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF #150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)	
	39	Seat and Disc		SS316+RPTFE	
	40	Nozzle		316 SS	
	41	Guide and Rings		VTA	
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)	
	43	Bellows		SS316+PTFE (VTC)	
OPTIONS	44				
	45	Cap: Screwed or Bolted		Screwed	
	46	Lever: Plain or Packed		N/A	
	47	Test Gage		Yes	
	48	With Rupture Disc		No	
	49	Hydro Test		Required	
	50	Seat Leakage Test		Required	
	51	Compliance Standard		N/A	
PURCHASE (will be finalized later)	52	Manufacturer		Will Be Finalized Later	
	53	Model		Will Be Finalized Later	
	54	Serial No.		Will Be Finalized Later	

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

053 - 073 - 9184

شماره پیمان:

پروژه

بسته کاری

صادر کننده

تسهیلات

رشته

وع مدرک

سریال

نسخه

BK

GCS

PEDCO

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شماره صفحه:

PRESSURE SAFETY VALVE

		PSV-2141		D05		
GENERAL	1	Tag Number		PSV-2141		
	2	Service		GAS		
	3	Line No.	Vessel No.	GAS-111-0060-FN05-3'-PT (Via Reducer)	V-2103	
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm	BK-GCS-PEDCO-120-PR-PI-0012 _D09	
	5	Discharge to		To FLARE		
	6	Protect Equipment		-		
	7	Area Clacification		Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance		YES		
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type		
	10	Design Type	Safety, Relief, Safety-Relief	Safety		
	11		Conventional, bellows, Pilot Op.	Conventional		
12	Bonnet Type		Closed			
PROCESS CONDITIONS	13	Fluid	State	GAS	Singel Phase	
	14	Required Capacity		17252.50	kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.562 kg/kmol	0.85	kg/m3
	16	Oper. Pressure	Set Pressure	53.9 /	62	bar-g
	17	Oper. Temperature	RelievingTemp.	60 /	60	°C
	18	Back Pressure	Constant	0.1		bar-g
	19		Variable			bar-g
	20		Total	1.0		bar-g
	21	% Allowable Overpressure		10%		
	22	Over Pressure Factor		1.10		
	23	Compressibility Factor(Z)		0.823		
	24	Latent Heat of Vaporization (Kj/Kg)		-		
25	Ratio of Specific Heats(Cp/Cv)		1.461			
26	Density @ flowing temprature		59.17		kg/m3	
27	Operating Viscosity		0.014		cP	
28	Barometric Pressure		13.26 ~ 14.37		psia	
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code		API 520		
	31	Fire		NO		
	32	Basis of Selection		Blocked Outlet		
	33	Calculated Area	MM ²	311 (VTC)		
	34	Required Area	MM ²	629.01 (VTC)		
CONNECTIONS	35	Orifice Designation		H (VTC)		
	36	Size: Inlet	Outlet	2" in	3" in	
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#600 FLANGEDRF	#150 FLANGEDRF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc		SS316+RPTFE		
	40	Nozzle		316 SS		
	41	Guide and Rings		VTA		
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)		
	43	Bellows		N/A		
	44					
OPTIONS	45	Cap: Screwed or Bolted		Screwed		
	46	Lever: Plain or Packed		N/A		
	47	Test Gage		Yes		
	48	With Rupture Disc		No		
	49	Hydro Test		Required		
	50	Seat Leakage Test		Required		
PURCHASE (will be finalized later)	51	Compliance Standard		N/A		
	52	Manufacturer		Will Be Finalized Later		
	53	Model		Will Be Finalized Later		
	54	Serial No.		Will Be Finalized Later		

Notes:

VTA : Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage

N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان:
053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 16 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2142				
	2	Service	GAS				
	3	Line No.	Vessel No.	GAS-111-0062-FN05-3"-PT (Via Reducer)		V-2103	
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0012_D09	
	5	Discharge to	To FLARE				
	6	Protect Equipment	-				
	7	Area Clacification	Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 Compliance	YES				
BASIS	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type				
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11	Bonnet Type	Conventional, bellows, Pilot Op.	Conventional			
PROCESS CONDITIONS	12	Bonnet Type	Closed				
	13	Fluid	State	GAS	Singel Phase		
	14	Required Capacity	17252.50		kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	24.562	kg/kmol	0.85	kg/m3
	16	Oper. Pressure	Set Pressure	53.9	/	62	bar-g
	17	Oper. Temperature	RelievingTemp.	60	/	60	°C
	18	Back Pressure	Constant	0.1		bar-g	
	19		Variable	1.0		bar-g	
	20		Total	1.0		bar-g	
	21	% Allowable Overpressure	10%				
	22	Over Pressure Factor	1.10				
	23	Compressibility Factor(Z)	0.823				
	24	Latent Heat of Vaporization (Kj/Kg)	-				
	25	Ratio of Specific Heats(Cp/Cv)	1.461				
26	Density @ flowing temprature	59.17	kg/m3				
27	Operating Viscosity	0.014	cP				
28	Barometric Pressure	13.26 ~ 14.37	psia				
SELECTION	29	Design Code	Sizing Basis	API 520	-		
	30	Construction Code	API 520				
	31	Fire	NO				
	32	Basis of Selection	Blocked Outlet				
	33	Calculated Area	MM ²	311	(VTC)		
	34	Required Area	MM ²	629.01	(VTC)		
CONNECTIONS	35	Orifice Designation	H (VTC)				
	36	Size: Inlet	Outlet	2" in	3" in		
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#600 FLANGEDRF	#150 FLANGEDRF		
	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)				
	39	Seat and Disc	SS316+RPTFE				
	40	Nozzle	316 SS				
	41	Guide and Rings	VTA				
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)				
	43	Bellows	N/A				
	44						
OPTIONS	45	Cap: Screwed or Bolted	Screwed				
	46	Lever: Plain or Packed	N/A				
	47	Test Gage	Yes				
	48	With Rupture Disc	No				
	49	Hydro Test	Required				
	50	Seat Leakage Test	Required				
PURCHASE (will be finalized later)	51	Compliance Standard	N/A				
	52	Manufacturer	Will Be Finalized Later				
	53	Model	Will Be Finalized Later				
	54	Serial No.	Will Be Finalized Later				

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 37 از 17

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2201				
	2	Service	GAS				
	3	Line No.	Vessel No.	ISA-112-0009-AZ00-2"-NP (Via Reducer)		V-2203	
	4	Pipe Class / C.A.	P&ID No.	AZ00 / 0mm		BK-GCS-PEDCO-120-PR-PI-0015_D08	
	5	Discharge to	To ATM				
	6	Protect Equipment	-				
	7	Area Clacification	Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 Compliance	No				
BASIS	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type				
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11	Bonnet Type	Conventional, bellows, Pilot Op.	Conventional			
PROCESS CONDITIONS	12	Bonnet Type	Closed				
	13	Fluid	State	GAS	Singel Phase		
	14	Required Capacity	1071.8		kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	28.95	kg/kmol	1.00	kg/m3
	16	Oper. Pressure	Set Pressure	8.00	12.5	bar-g	
	17	Oper. Temperature	RelievingTemp.	65	/	323.4	°C
	18	Back Pressure	Constant	-		bar-g	
	19		Variable	0.0		bar-g	
	20		Total	0.0		bar-g	
	21	% Allowable Overpressure	21%				
	22	Over Pressure Factor	1.21				
	23	Compressibility Factor(Z)	0.99				
24	Latent Heat of Vaporization (Kj/Kg)	-					
25	Ratio of Specific Heats(Cp/Cv)	1.42					
26	Density @ flowing temprature	9.29	kg/m3				
27	Operating Viscosity	0.021	cP				
28	Barometric Pressure	13.26 ~ 14.37	psia				
SELECTION	29	Design Code	Sizing Basis	API 520	-		
	30	Construction Code	API 520				
	31	Fire	Yes				
	32	Basis of Selection	FIRE				
	33	Calculated Area	MM ²	113.24	(VTC)		
	34	Required Area	MM ²	153.95	(VTC)		
35	Orifice Designation	E (VTC)					
CONNECTIONS	36	Size: Inlet	Outlet	1" in	2" in		
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF		
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)				
	39	Seat and Disc	ASTM B148 UNS C95800				
	40	Nozzle	316 SS				
	41	Guide and Rings	VTA				
	42	Spring	Nickel plated tungsten steel (VTC)(Note20)				
	43	Bellows	N/A				
OPTIONS	44						
	45	Cap: Screwed or Bolted	Screwed				
	46	Lever: Plain or Packed	N/A				
	47	Test Gage	Yes				
	48	With Rupture Disc	No				
	49	Hydro Test	Required				
PURCHASE (will be finalized later)	50	Seat Leakage Test	Required				
	51	Compliance Standard	N/A				
	52	Manufacturer	Will Be Finalized Later				
	53	Model	Will Be Finalized Later				
54	Serial No.	Will Be Finalized Later					

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 37 از 18

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2211A		D05
	2	Service	GAS		
	3	Line No.	Vessel No.	NIT-112-0022-AN01-2"-PT (Via Reducer)	V-2204
	4	Pipe Class / C.A.	P&ID No.	AN01 / 1mm	BK-GCS-PEDCO-120-PR-PI-0016_D08
	5	Discharge to	To ATM		
	6	Protect Equipment	-		
	7	Area Clacification	Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance	No		
BASIS	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type		
	10	Design Type	Safety, Relief, Safety-Relief	Safety	
	11		Conventional, bellows, Pilot Op.	Conventional	
PROCESS CONDITIONS	12	Bonnet Type	Closed		
	13	Fluid	State	GAS	Singel Phase
	14	Required Capacity	500.4 kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	28 kg/kmol	0.97 kg/m3
	16	Oper. Pressure	Set Pressure	8.00	12.5 bar-g
	17	Oper. Temperature	RelievingTemp.	60 /	323.4 °C
	18	Back Pressure	Constant	-	bar-g
	19		Variable	0.0	bar-g
	20		Total	0.0	bar-g
	21	% Allowable Overpressure	21%		
	22	Over Pressure Factor	1.21		
	23	Compressibility Factor(Z)	0.99		
24	Latent Heat of Vaporization (Kj/Kg)	-			
25	Ratio of Specific Heats(Cp/Cv)	1.40			
26	Density @ flowing temprature	9.12	kg/m3		
27	Operating Viscosity	0.030	cP		
28	Barometric Pressure	13.26 ~ 14.37	psia		
SELECTION	29	Design Code	Sizing Basis	API 520	-
	30	Construction Code	API 520		
	31	Fire	Yes		
	32	Basis of Selection	FIRE		
	33	Calculated Area	MM ²	54.241 (VTC)	
	34	Required Area	MM ²	153.9 (VTC)	
CONNECTIONS	35	Orifice Designation	D (VTC)		
	36	Size: Inlet	Outlet	1" in	2" in
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF
	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc	13Cr+PTFE		
	40	Nozzle	316 SS		
	41	Guide and Rings	VTA		
	42	Spring	Nickel plated tungsten steel (VTC)(Note20)		
	43	Bellows	N/A		
	44				
OPTIONS	45	Cap: Screwed or Bolted	Screwed		
	46	Lever: Plain or Packed	N/A		
	47	Test Gage	Yes		
	48	With Rupture Disc	No		
	49	Hydro Test	Required		
	50	Seat Leakage Test	Required		
	51	Compliance Standard	N/A		
PURCHASE (will be finalized later)	52	Manufacturer	Will Be Finalized Later		
	53	Model	Will Be Finalized Later		
	52	Serial No.	Will Be Finalized Later		

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

شماره پیمان:

پروژه

BK

GCS

صادر کننده

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تسهیلات

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0009

نسخه

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شماره صفحه:

PRESSURE SAFETY VALVE

		PSV-2271A		D05		
GENERAL	1	Tag Number		PSV-2271A		
	2	Service		GAS		
	3	Line No.	Vessel No.	FLG-111-0011-AN07-2"-PT (Via Reducer)	V-2205	
	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm	BK-GCS-PEDCO-120-PR-PI-0022_D09	
	5	Discharge to		To FLARE		
	6	Protect Equipment		-		
	7	Area Clacification		Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance		Yes		
BASIS	9	Nozzle (Full, Semi)		Full Nozzle		
	10	Design Type		Safety, Relief, Safety-Relief		
	11	Bonnet Type		Conventional, bellows, Pilot Op.		
	12	Bonnet Type		Open		
PROCESS CONDITIONS	13	Fluid	State	GAS	Singel Phase	
	14	Required Capacity		174.5	kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	18.02	kg/kmol	0.62
	16	Oper. Pressure	Set Pressure	4.90	9	bar-g
	17	Oper. Temperature	RelievingTemp.	36.78	/	182.6 °C
	18	Back Pressure	Constant	0.1	bar-g	
	19		Variable		bar-g	
	20		Total	3.3	bar-g	
	21	% Allowable Overpressure		21%		
	22	Over Pressure Factor		1.21		
	23	Compressibility Factor(Z)		0.975		
	24	Latent Heat of Vaporization (Kj/Kg)		1994.0		
25	Ratio of Specific Heats(Cp/Cv)		1.25			
26	Density @ flowing temprature		5.77	kg/m3		
27	Operating Viscosity		0.012	cP		
28	Barometric Pressure		13.26 ~ 14.37	psia		
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code		API 520		
	31	Fire		NO		
	32	Basis of Selection		FIRE		
	33	Calculated Area	MM ²	28.75(VTC)		
	34	Required Area	MM ²	153.9 (VTC)		
	35	Orifice Designation		D (VTC)		
CONNECTIONS	36	Size: Inlet	Outlet	1" in	2" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc		SS316+PTFE		
	40	Nozzle		316SS		
	41	Guide and Rings		VTA		
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)		
	43	Bellows		SS316+PTFE (VTC)		
OPTIONS	44					
	45	Cap: Screwed or Bolted		Screwed		
	46	Lever: Plain or Packed		N/A		
	47	Test Gage		Yes		
	48	With Rupture Disc		No		
	49	Hydro Test		Required		
	50	Seat Leakage Test		Required		
PURCHASE (will be finalized later)	51	Compliance Standard		N/A		
	52	Manufacturer		Will Be Finalized Later		
	53	Model		Will Be Finalized Later		
	52	Serial No.		Will Be Finalized Later		

Notes:

VTA : Vendor to Advise in bidding stage

VTC : Vendor to confirm in bidding stage

N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

شماره پیمان:

پروژه

BK

GCS

صادرکننده

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نسخه

D05

شماره صفحه: 37 از 20

PRESSURE SAFETY VALVE

		PSV-2271B		D05		
GENERAL	1	Tag Number		GAS		
	2	Service		GAS		
	3	Line No.	Vessel No.	FLG-111-0227-AN07-2"-PT (Via Reducer)	V-2205	
	4	Pipe Class / C.A.	P&ID No.	AN07 / 6mm	BK-GCS-PEDCO-120-PR-PI-0022_D09	
	5	Discharge to		To FLARE		
	6	Protect Equipment		-		
	7	Area Clacification		Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance		Yes		
BASIS	9	Nozzle (Full, Semi)		Full Nozzle		
	10	Design Type	Safety, Relief, Safety-Relief	Safety		
	11		Conventional, bellows, Pilot Op.	Bellows		
12	Bonnet Type		Open			
PROCESS CONDITIONS	13	Fluid	State	GAS	Singel Phase	
	14	Required Capacity		174.5	kg/h	
	15	Molecular Mass	Sp. Gr.@ relief Tmp	18.02	kg/kmol	0.62
	16	Oper. Pressure	Set Pressure	4.90		9 bar-g
	17	Oper. Temperature	RelievingTemp.	36.78	/	182.6 °C
	18	Back Pressure	Constant	0.1		bar-g
			Variable			bar-g
	19	Total		3.2		bar-g
	20					
	21	% Allowable Overpressure		21%		
	22	Over Pressure Factor		1.21		
	23	Compressibility Factor(Z)		0.975		
24	Latent Heat of Vaporization (Kj/Kg)		1994.0			
25	Ratio of Specific Heats(Cp/Cv)		1.25			
26	Density @ flowing temprature		5.77	kg/m3		
27	Operating Viscosity		0.012	cP		
28	Barometric Pressure		13.26 ~ 14.37	psia		
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code		API 520		
	31	Fire		NO		
	32	Basis of Selection		FIRE		
	33	Calculated Area	MM ²	28.75(VTC)		
	34	Required Area	MM ²	153.9 (VTC)		
35	Orifice Designation		D (VTC)			
CONNECTIONS	36	Size: Inlet	Outlet	1" in	2" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc		SS316+PTFE		
	40	Nozzle		316SS		
	41	Guide and Rings		VTA		
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)		
	43	Bellows		SS316+PTFE (VTC)		
OPTIONS	44					
	45	Cap: Screwed or Bolted		Screwed		
	46	Lever: Plain or Packed		N/A		
	47	Test Gage		Yes		
	48	With Rupture Disc		No		
	49	Hydro Test		Required		
	50	Seat Leakage Test		Required		
51	Compliance Standard		N/A			
PURCHASE (will be finalized later)	52	Manufacturer		Will Be Finalized Later		
	53	Model		Will Be Finalized Later		
	52	Serial No.		Will Be Finalized Later		

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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تکهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان:
053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 21 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2293		
	2	Service	GAS		
	3	Line No.	Vessel No.	TEG-111-0113-AN04-2"-PT (Via Reducer) V-2107	
	4	Pipe Class / C.A.	P&ID No.	AN04 / 3mm BK-GCS-PEDCO-120-PR-PI-0025_D09	
	5	Discharge to	To FLARE		
	6	Protect Equipment	-		
	7	Area Clacification	Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance	Yes		
BASIS	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type		
	10	Design Type	Safety, Relief, Safety-Relief	Safety	
	11	Bonnet Type	Conventional, bellows, Pilot Op.	Conventional	
PROCESS CONDITIONS	12	Bonnet Type	Closed		
	13	Fluid	State	GAS Singel Phase	
	14	Required Capacity	2098.0 kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	143.6 kg/kmol 4.95 kg/m3	
	16	Oper. Pressure	Set Pressure	0.10 3.5 bar-g	
	17	Oper. Temperature	RelievingTemp.	33 / 0.1 335.9 °C	
	18	Back Pressure	Constant	0.1 bar-g	
	19		Variable	bar-g	
	20		Total	0.1 bar-g	
	21	% Allowable Overpressure	21%		
	22	Over Pressure Factor	1.21		
	23	Compressibility Factor(Z)	0.646		
24	Latent Heat of Vaporization (Kj/Kg)	314.3			
25	Ratio of Specific Heats(Cp/Cv)	1.08			
26	Density @ flowing temprature	10.29 kg/m3			
27	Operating Viscosity	0.010 cP			
28	Barometric Pressure	13.26 ~ 14.37 psia			
SELECTION	29	Design Code	Sizing Basis	API 520 -	
	30	Construction Code	API 520		
	31	Fire	NO		
	32	Basis of Selection	FIRE		
	33	Calculated Area	MM ²	275(VTC)	
	34	Required Area	MM ²	397.6 (VTC)	
CONNECTIONS	35	Orifice Designation	G (VTC)		
	36	Size: Inlet	Outlet	1 1/2" in 3" in	
	37	Rating & Facing :In	Outlet	#300 FLANGED RF #150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc	SS316+PTFE		
	40	Nozzle	316 SS		
	41	Guide and Rings	VTA		
	42	Spring	Nickel plated tungsten steel (VTC)(Note20)		
	43	Bellows	N/A		
OPTIONS	44				
	45	Cap: Screwed or Bolted	Screwed		
	46	Lever: Plain or Packed	N/A		
	47	Test Gage	Yes		
	48	With Rupture Disc	No		
	49	Hydro Test	Required		
PURCHASE (will be finalized later)	50	Seat Leakage Test	Required		
	51	Compliance Standard	N/A		
	52	Manufacturer	Will Be Finalized Later		
	53	Model	Will Be Finalized Later		
	52	Serial No.	Will Be Finalized Later		

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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تکهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان:
053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 37 از 22

TEMPERATURE SAFETY VALVE

GENERAL	1	Tag Number	TSV-2281A			
	2	Service	LIQUID			
	3	Line No.	Vessel No.	CDH-112-0116-CN07-1"-PT (Via Reducer)		
	4	Pipe Class / C.A.	P&ID No.	CN07 / 6mm	BK-GCS-PEDCO-120-PR-PI-0004_D08 (1 OF 3)	
	5	Discharge to	To Close Drain Header			
	6	Protect Equipment	-			
	7	Area Clacification	Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance	YES			
BASIS	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety		
	11		Conventional, bellows, Pilot Op.	Conventional		
12	Bonnet Type	Closed				
PROCESS CONDITIONS	13	Fluid	LIQUID	Singel Phase		
	14	Required Capacity	-			
	15	Molecular Mass	Sp. Gr.@ relief Tmp	48.45	-	
	16	Oper. Pressure	Set Pressure	19.50	24.00	
	17	Oper. Temperature	RelievingTemp.	25.00		
	18	Back Pressure	Constant	0.2		
			Variable	-		
	19	Total	0.2			
	20	% Allowable Overpressure	21%			
	21	Over Pressure Factor	1.21			
	22	Compressibility Factor(Z)	-			
	23	Latent Heat of Vaporization (Kj/Kg)	1887			
24	Ratio of Specific Heats(Cp/Cv)	1.142				
25	Density @ flowing temprature	690-728.5				
26	Operating Viscosity (cp)	0.580				
27	Barometric Pressure	13.26 ~ 14.37 psia				
SELECTION	28	Design Code	Sizing Basis	-	-	
	29	Construction Code	-			
	30	Fire	-			
	31	Basis of Selection	Thermal Expansion			
	32	Calculated Area	MM ²	-		
	33	Required Area	MM ²	-		
CONNECTIONS	34	Orifice Designation	-			
	35	Size: Inlet	Outlet	3/4" in	1" in	
MATERIALS (VTC)	36	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF	
	37	Body and Bonnet	ASTM A216 GR. WCB (VTC)			
	38	Seat and Disc	SS316+PTFE			
	39	Nozzle	316 SS			
	40	Guide and Rings	VTA			
	41	Spring	ASTM A216 GR. WCB (VTC) (Note2)			
	42	Bellows	N/A			
OPTIONS	43	Cap: Screwed or Bolted	Screwed			
	44	Lever: Plain or Packed	N/A			
	45	Test Gage	Yes			
	46	With Rupture Disc	No			
	47	Hydro Test	Required			
	48	Seat Leakage Test	Required			
PURCHASE (will be finalized later)	49	Compliance Standard	N/A			
	50	Manufacturer	Will Be Finalized Later			
	51	Model	Will Be Finalized Later			
52	Serial No.	Will Be Finalized Later				

Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان:
053 - 073 - 9184

نسخه	سریال	وع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 37 از 23

TEMPERATURE SAFETY VALVE





GENERAL	1	Tag Number	TSV-2281		
	2	Service	LIQUID		
	3	Line No.	Vessel No.	DO-112-0006A-AN01-1"-PT (Via Reducer) V-2206	
	4	Pipe Class / C.A.	P&ID No.	AN01 / 1mm BK-GCS-PEDCO-120-PR-PI-0023_D08 (1 OF 3)	
	5	Discharge to	To DIESEL OIL DRUM		
	6	Protect Equipment	-		
	7	Area Clacification	Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance	NO		
BASIS	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type		
	10	Design Type	Safety, Relief, Safety-Relief	Safety	
	11	Bonnet Type	Conventional, bellows, Pilot Op.	Conventional	
PROCESS CONDITIONS	12	Design Type	Closed		
	13	Fluid	State	LIQUID	Singel Phase
	14	Required Capacity	39.537 (V.T.C) kg/h		
	15	Molecular Mass	Sp. Gr.@ relief Tmp	184.4	0.85
	16	Oper. Pressure	Set Pressure	0.10	3.5 bar-g
	17	Oper. Temperature	RelievingTemp.	AMB /	VTA °C
	18	Back Pressure	Constant	- bar-g	
	19		Variable	0.0 bar-g	
	20		Total	0.0 bar-g	
	21	% Allowable Overpressure	10%		
	22	Over Pressure Factor	110%		
	23	Compressibility Factor(Z)	-		
24	Latent Heat of Vaporization (Kj/Kg)	-			
25	Ratio of Specific Heats(Cp/Cv)	1.118			
26	Density @ flowing temprature	850.00			
27	Operating Viscosity (cp)	2.143			
28	Barometric Pressure	13.26 ~ 14.37 psia			
SELECTION	29	Design Code	Sizing Basis	-	-
	30	Construction Code	-		
	31	Fire	-		
	32	Basis of Selection	Thermal Expansion		
	33	Calculated Area	MM ²	0.00003464509 (V.T.C)	
	34	Required Area	MM ²	0.0000709676 (V.T.C)	
CONNECTIONS	35	Orifice Designation	D		
	36	Size: Inlet	Outlet	3/4" in	1" in
	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF
MATERIALS (VTC)	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc	SS316+PTFE		
	40	Nozzle	316 SS		
	41	Guide and Rings	VTA		
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)		
	43	Bellows	N/A		
OPTIONS	44				
	45	Cap: Screwed or Bolted	Screwed		
	46	Lever: Plain or Packed	N/A		
	47	Test Gage	Yes		
	48	With Rupture Disc	No		
	49	Hydro Test	Required		
PURCHASE (will be finalized later)	50	Seat Leakage Test	Required		
	51	Compliance Standard	N/A		
	52	Manufacturer	Will Be Finalized Later		
	53	Model	Will Be Finalized Later		
	52	Serial No.	Will Be Finalized Later		



Notes:

VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D03 ".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							  			
	DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES										
شماره پیمان:		پروژه	بسته کاری	صادرکننده	تهیهات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 24 از 37	
053 - 073 - 9184		BK	GCS	PEDCO	120	IN	DT	0009	D05		
PRESSURE VACUUM SAFETY VALVE											
GENERAL	1	Tag Number	Quantity			PVSU-2161				1	
	2	Service	TK-2102								
	3	P&ID NO.	BK-GCS-PEDCO-120-PR-PI-0014_D09								
	4	Line or Equipment No or Trim Line	Piping Class			TRM-TK-2102-0502-AN04-PT			AN04		
	5	NACE MR0175/ISO 15156 Compliance	Area Clacification			No			Zone 2, IIB T4		
	6	Design Code	API 2000								
PROCESS DATA	7	Pressure	Operating	Design (Min/Max)	Unit	0.01 / 0.05		FULL OF LIQUID+160 mbarg / -7 mbarg		barg	
	8	Temperature	Operating	Design (Min/Max)	Unit	50		85		°C	
	9	Ratio of Specific Heats (k=Cp/Cv)			1.4 / 1.41						
	10	Specific Gravity			-						
	11	Molecular Weight			28 / 29						
	12	Compressibility Factor (Z)			0.9998 / 1						
	13	Toxic Service	Corrosive Service			NO		NO			
	14	Flash Point	Unit			163				°C	
	15	Relief Set Pressure	Unit			130				mbarg	
	16	Vacuum Set Pressure	Unit			-7				mbarg	
	17	In-Breathing Required Capacity	Unit			17				Kg/hr	
18	Out-Breathing Required Capacity	Unit			126.5				Kg/hr		
19	Discharge to			ATMOSPHERE							
VALVE DATA	20	Valve Type			WEIGHT LOADED (VTC)						
	21	Function			PRESSURE AND VACUUM SAFETY VALVE						
	22	Inlet Connection (Type / Size / Rating)			VTA / 2 / #300 RF						
	23	Outlet Connection (Type / Size / Rating)			VTA / 3 / #150 RF						
	24	Rated In-Breathing Capacity	Unit			VTA				Kg/hr	
	25	Rated Out-Breathing Capacity	Unit			VTA				Kg/hr	
	26	Body Material			ASTM A216 WCB (VTC)						
	27	Hood Material			ASTM A216 WCB (VTC)						
	28	Stem /Guide Material			SS316 (VTC)						
	29	Bolt & Nut Material			ASTM A193 Gr.B7M/2HM (VTC)						
	30	Pressure Pallet Material	Seat Material			VTA		VTA			
	31	Vacuum Pallet Material	Seat Material			VTA		VTA			
32	Diaphragm Material			VTA							
FLAME ARRESTOR	33	Connection (Type / Size / Rating)			VTA	VTA			#150 RF		
	34	Mounting Position (Integral / Modular)			Integral						
	35	Body Material			ASTM A216 WCB (VTC)						
	36	Grid Material			SS316 (VTC)						
	37	Element Type			VTA						
PURCHASE	38	Vendor			To be selected from AVL						
	39	Manufacturer			Will be finalized after PO						
	40	Model			Manufacturer Recommendation						
	41	Purchase Order Number			Superimposed Back Pressure						
42	Serial Number			Manufacturer Recommendation							
Notes:											

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک										
	DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES										
شماره پیمان:		پروژه	بسته کاری	صادرکننده	تهیهات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 25 از 37	
053 - 073 - 9184		BK	GCS	PEDCO	120	IN	DT	0009	D05		
PRESSURE VACUUM SAFETY VALVE											
GENERAL	1	Tag Number	Quantity			PVSU-2162			1		
	2	Service	TK-2102								
	3	P&ID NO.	BK-GCS-PEDCO-120-PR-PI-0014_D09								
	4	Line or Equipment No or Trim Line	Piping Class			TRM-TK-2102-0502-AN04-PT			AN04		
	5	NACE MR0175/ISO 15156 Compliance	Area Clacification			No			Zone 2, IIB T4		
	6	Design Code	API 2000								
PROCESS DATA	7	Pressure	Operating	Design (Min/Max)	Unit	0.01 / 0.05		FULL OF LIQUID+160 mbarg / -7 mbarg		barg	
	8	Temperature	Operating	Design (Min/Max)	Unit	50		85		°C	
	9	Ratio of Specific Heats (k=Cp/Cv)			1.4 / 1.41						
	10	Specific Gravity			-						
	11	Molecular Weight			28 / 29						
	12	Compressibility Factor (Z)			0.9998 / 1						
	13	Toxic Service	Corrosive Service			NO		NO			
	14	Flash Point	Unit			163		°C			
	15	Relief Set Pressure	Unit			160		mbarg			
	16	Vacuum Set Pressure	Unit			-7		mbarg			
	17	In-Breathing Required Capacity	Unit			17		Kg/hr			
18	Out-Breathing Required Capacity	Unit			126.5		Kg/hr				
19	Discharge to			ATMOSPHERE							
VALVE DATA	20	Valve Type			WEIGHT LOADED (VTC)						
	21	Function			PRESSURE AND VACUUM SAFETY VALVE						
	22	Inlet Connection (Type / Size / Rating)			VTA / 2 / #300 RF						
	23	Outlet Connection (Type / Size / Rating)			VTA / 3 / #150 RF						
	24	Rated In-Breathing Capacity	Unit			VTA		Kg/hr			
	25	Rated Out-Breathing Capacity	Unit			VTA		Kg/hr			
	26	Body Material			ASTM A216 WCB (VTC)						
	27	Hood Material			ASTM A216 WCB (VTC)						
	28	Stem /Guide Material			SS316 (VTC)						
	29	Bolt & Nut Material			ASTM A193 Gr.B7M/2HM (VTC)						
	30	Pressure Pallet Material	Seat Material			VTA		VTA			
	31	Vacuum Pallet Material	Seat Material			VTA		VTA			
32	Diaphragm Material			VTA							
FLAME ARRESTOR	33	Connection (Type / Size / Rating)			VTA		VTA		#150 RF		
	34	Mounting Position (Integral / Modular)			Integral						
	35	Body Material			ASTM A216 WCB (VTC)						
	36	Grid Material			SS316 (VTC)						
	37	Element Type			VTA						
PURCHASE	38	Vendor			To be selected from AVL						
	39	Manufacturer			Will be finalized after PO						
	40	Model			Manufacturer Recommendation						
	41	Purchase Order Number			Superimposed Back Pressure						
42	Serial Number			Manufacturer Recommendation							
Notes:											



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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 37 از 26

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2122A			
	2	Service	GAS			
	3	Line No.	Vessel No.	GAS-111-0032A-CN05-3"-PT		
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		
	5	Discharge to	To FLARE			
	6	Protect Equipment	-			
	7	Area Clacification	Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance	YES			
BASIS	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety		
	11		Conventional, bellows, Pilot Op.	Conventional		
12	Bonnet Type	Closed				
PROCESS CONDITIONS	13	Fluid	State	GAS		
	14	Required Capacity	8664.0		Single Phase	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52	kg/kmol	0.85
	16	Oper. Pressure	Set Pressure	19	bar-g	22
	17	Oper. Temperature	Relieving Temp.	124.8	°C	124.8
	18	Back Pressure	Constant	bar-g		
	19		Variable	0.9		
	20		Total	0.9		
	21	% Allowable Overpressure	10%			
	22	Over Pressure Factor	1.10			
	23	Compressibility Factor(Z)	0.964			
	24	Latent Heat of Vaporization (Kj/Kg)	693.3			
25	Ratio of Specific Heats(Cp/Cv)	1.225				
26	Density @ flowing temprature	15.5	kg/m3			
27	Operating Viscosity	0.015	cP			
28	Barometric Pressure	13.26 ~ 14.37 psia				
SELECTION	29	Design Code	Sizing Basis	API 520		
	30	Construction Code	API 520			
	31	Fire	NO			
	32	Basis of Selection	Blocked Outlet			
	33	Calculated Area	MM ²	539.85 (VTC)		
	34	Required Area	MM ²	1017(VTC)		
CONNECTIONS	35	Orifice Designation	J (VTC)			
	36	Size: Inlet	Outlet	2" in	3" in	
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#300 FLANGED RF		
	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc	SS316+RPTFE			
	40	Nozzle	316 SS			
	41	Guide and Rings	VTA			
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows	N/A			
	44					
OPTIONS	45	Cap: Screwed or Bolted	Screwed			
	46	Lever: Plain or Packed	N/A			
	47	Test Gage	Yes			
	48	With Rupture Disc	No			
	49	Hydro Test	Required			
	50	Seat Leakage Test	Required			
PURCHASE (will be finalized later)	51	Compliance Standard	N/A			
	52	Manufacturer	Will Be Finalized Later			
	53	Model	Will Be Finalized Later			
54	Serial No.	Will Be Finalized Later				

in Gas Compressor vendor
scope of workNotes:
VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 37 از 27

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number		PSV-2122B			
	2	Service		GAS			
	3	Line No.	Vessel No.	GAS-111-0032B-CN05-3"-PT		-	
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0007_D07 (2 OF 3)	
	5	Discharge to		To FLARE			
	6	Protect Equipment		-			
	7	Area Classification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance		YES			
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11		Conventional, bellows, Pilot Op.	Conventional			
12	Bonnet Type		Closed				
PROCESS CONDITIONS	13	Fluid	State	GAS		Single Phase	
	14	Required Capacity		8664.0		kg/h	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52 kg/kmol		0.85 kg/m3	
	16	Oper. Pressure	Set Pressure	19 / 22		bar-g	
	17	Oper. Temperature	Relieving Temp.	124.8 / 124.8		°C	
	18	Back Pressure	Constant	-		bar-g	
	19		Variable	0.9		bar-g	
	20		Total	0.9		bar-g	
	21	% Allowable Overpressure		10%			
	22	Over Pressure Factor		1.10			
	23	Compressibility Factor(Z)		0.964			
	24	Latent Heat of Vaporization (Kj/Kg)		693.3			
25	Ratio of Specific Heats(Cp/Cv)		1.225				
26	Density @ flowing temprature		kg/m3				
27	Operating Viscosity		cP				
28	Barometric Pressure		~ 14.37 psia				
SELECTION	29	Design Code	Sizing Basis	-			
	30	Construction Code		API 520			
	31	Fire		NO			
	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area	MM ²	539.85 (VTC)			
	34	Required Area	MM ²	1017(VTC)			
CONNECTIONS	35	Orifice Designation		J (VTC)			
	36	Size: Inlet	Outlet	2" in		3" in	
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#300 FLANGED RF		#150 FLANGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
OPTIONS	44						
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
	48	With Rupture Disc		No			
PURCHASE (will be finalized later)	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard		N/A			
52	Manufacturer		Will Be Finalized Later				
53	Model		Will Be Finalized Later				
54	Serial No.		Will Be Finalized Later				

In Gas Compressor vendor scope of work

Notes: VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 37 از 28

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number		PSV-2122C			
	2	Service		GAS			
	3	Line No.	Vessel No.	GAS-111-0032C-CN05-3"-PT		-	
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0007_D07 (3 OF 3)	
	5	Discharge to		To FLARE			
	6	Protect Equipment		-			
	7	Area Classification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance		YES			
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11		Conventional, bellows, Pilot Op.	Conventional			
12	Bonnet Type		Closed				
PROCESS CONDITIONS	13	Fluid	State	GAS		Singel Phase	
	14	Required Capacity		8664		kg/h	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52 kg/kmol		0.85 kg/m3	
	16	Oper. Pressure	Set Pressure	19		22 bar-g	
	17	Oper. Temperature	Relieving Temp.	124.8		124.8 °C	
	18	Back Pressure	Constant			bar-g	
	19		Variable			bar-g	
	20		Total	0.9		bar-g	
	21	% Allowable Overpressure				10%	
	22	Over Pressure Factor				1.10	
	23	Compressibility Factor(Z)				0.964	
	24	Latent Heat of Vaporization (Kj/Kg)				693.3	
25	Ratio of Specific Heats(Cp/Cv)				1.225		
26	Density @ flowing temprature		15.38		kg/m3		
27	Operating Viscosity		0.015		cP		
28	Barometric Pressure		13.26 ~ 14.37		psia		
SELECTION	29	Design Code	Sizing Basis	API 520		-	
	30	Construction Code		API 520			
	31	Fire		NO			
	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area		MM ²		539.85 (VTC)	
	34	Required Area		MM ²		1017(VTC)	
CONNECTIONS	35	Orifice Designation		J (VTC)			
	36	Size: Inlet	Outlet	2" in		3" in	
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#300 FLANGED RF		#150 FLANGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
OPTIONS	44						
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
	48	With Rupture Disc		No			
PURCHASE (will be finalized later)	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard		N/A			
52	Manufacturer		Will Be Finalized Later				
53	Model		Will Be Finalized Later				
54	Serial No.		Will Be Finalized Later				

In Gas Compressor vendor scope of work

Notes: VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 37 از 29

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number		PSV-2123A			
	2	Service		GAS			
	3	Line No.	Vessel No.	GAS-111-0033A-CN05-3"-PT		-	
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0007_D07(1 OF 3)	
	5	Discharge to		To FLARE			
	6	Protect Equipment		-			
	7	Area Classification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance		YES			
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11		Conventional, bellows, Pilot Op.	Conventional			
12	Bonnet Type		Closed				
PROCESS CONDITIONS	13	Fluid	State	GAS		Singel Phase	
	14	Required Capacity		8664.0		kg/h	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52	kg/kmol	0.85	kg/m3
	16	Oper. Pressure	Set Pressure	19	/	22	bar-g
	17	Oper. Temperature	Relieving Temp.	124.8		124.8	°C
	18	Back Pressure	Constant			bar-g	
	19		Variable			bar-g	
	20		Total	0.9		bar-g	
	21	% Allowable Overpressure				10%	
	22	Over Pressure Factor				1.10	
	23	Compressibility Factor(Z)				0.964	
	24	Latent Heat of Vaporization (Kj/Kg)				693.3	
25	Ratio of Specific Heats(Cp/Cv)				1.225		
26	Density @ flowing temprature				kg/m3		
27	Operating Viscosity				cP		
28	Barometric Pressure		13.26 ~ 14.37		psia		
SELECTION	29	Design Code	Sizing Basis	API 520		-	
	30	Construction Code		API 520			
	31	Fire		NO			
	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area	MM ²	539.85 (VTC)			
	34	Required Area	MM ²	1017(VTC)			
CONNECTIONS	35	Orifice Designation		J (VTC)			
	36	Size: Inlet	Outlet	2" in		3" in	
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#300 FLANGED RF		#150 FLANGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
	44						
OPTIONS	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
	48	With Rupture Disc		No			
	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
PURCHASE (will be finalized later)	51	Compliance Standard		N/A			
	52	Manufacturer		Will Be Finalized Later			
	53	Model		Will Be Finalized Later			
	54	Serial No.		Will Be Finalized Later			

in Gas Compressor vendor
scope of work

Notes: VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان:
053 - 073 - 9184

نسخه	سریال	بوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 30 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number		PSV-2123B			
	2	Service		GAS			
	3	Line No.	Vessel No.	GAS-111-0033B-CN05-3"-PT		-	
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0007_D07 (2 OF 3)	
	5	Discharge to		To FLARE			
	6	Protect Equipment		-			
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance		YES			
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11		Conventional, bellows, Pilot Op.	Conventional			
12	Bonnet Type		Closed				
PROCESS CONDITIONS	13	Fluid	State	GAS		Singel Phase	
	14	Required Capacity		8664.0		kg/h	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52	kg/kmol	0.85	kg/m3
	16	Oper. Pressure	Set Pressure	19	bar-g	22	bar-g
	17	Oper. Temperature	RelievingTemp.	124.8	°C	124.8	°C
	18	Back Pressure	Constant	bar-g			
	19		Variable	bar-g			
	20		Total	bar-g			
	21	% Allowable Overpressure		10%			
	22	Over Pressure Factor		1.10			
	23	Compressibility Factor(Z)		0.964			
	24	Latent Heat of Vaporization (Kj/Kg)		693.3			
	25	Ratio of Specific Heats(Cp/Cv)		1.225			
26	Density @ flowing temprature		15.3	kg/m3			
27	Operating Viscosity		0.015	cP			
28	Barometric Pressure		13.26 ~ 14.37	psia			
SELECTION	29	Design Code	Sizing Basis	API 520		-	
	30	Construction Code		API 520			
	31	Fire		NO			
	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area		539.85 (VTC)			
	34	Required Area		1017(VTC)			
	35	Orifice Designation		J (VTC)			
CONNECTIONS	36	Size: Inlet	Outlet	2" in		3" in	
	37	Rating & Facing :In	Outlet	#300 FLANGEDRF		#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
OPTIONS	44						
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
	48	With Rupture Disc		No			
	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard		N/A			
PURCHASE (will be finalized later)	52	Manufacturer		Will Be Finalized Later			
	53	Model		Will Be Finalized Later			
	54	Serial No.		Will Be Finalized Later			

In Gas Compressor vendor
scope of work

Notes:
VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 "

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 37 از 31

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number	PSV-2123C		
	2	Service	GAS		
	3	Line No.	Vessel No.	GAS-111-0033C-CN05-3"-PT	
	4	Pipe Class / C.A.	P&ID No.	CN05 / 3mm BK-GCS-PEDCO-120-PR-PI-0007_D07 (3 OF 3)	
	5	Discharge to	To FLARE		
	6	Protect Equipment	-		
	7	Area Clacification	Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance	YES		
BASIS	9	Nozzle (Full, Semi)	Full Nozzle, Spring Loaded Type		
	10	Design Type	Safety, Relief, Safety-Relief	Safety	
	11		Conventional, bellows, Pilot Op.	Conventional	
12	Bonnet Type	Closed			
PROCESS CONDITIONS	13	Fluid	State	GAS Singel Phase	
	14	Required Capacity	8664.0 kg/h		
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52 kg/kmol	0.85 kg/m3
	16	Oper. Pressure	Set Pressure	19 bar-g	22 bar-g
	17	Oper. Temperature	RelievingTemp.	124.8 °C	124.8 °C
	18	Back Pressure	Constant	bar-g	
	19		Variable	bar-g	
	20		Total	0.9 bar-g	
	21	% Allowable Overpressure	10%		
	22	Over Pressure Factor	1.10		
	23	Compressibility Factor(Z)	0.964		
	24	Latent Heat of Vaporization (Kj/Kg)	693.3		
25	Ratio of Specific Heats(Cp/Cv)	1.225			
26	Density @ flowing temprature	15.5 kg/m3			
27	Operating Viscosity	0.015 cP			
28	Barometric Pressure	13.26 ~ 14.37 psia			
SELECTION	29	Design Code	Sizing Basis	API 520	
	30	Construction Code	API 520		
	31	Fire	NO		
	32	Basis of Selection	Blocked Outlet		
	33	Calculated Area	539.85 (VTC)		
	34	Required Area	1017(VTC)		
CONNECTIONS	35	Orifice Designation	J (VTC)		
	36	Size: Inlet	Outlet	2" in	3" in
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#300 FLANGED RF	#150 FLANGED RF
	38	Body and Bonnet	ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc	SS316+RPTFE		
	40	Nozzle	316 SS		
	41	Guide and Rings	VTA		
	42	Spring	ASTM A216 GR. WCB (VTC) (Note2)		
	43	Bellows	N/A		
	44				
OPTIONS	45	Cap: Screwed or Bolted	Screwed		
	46	Lever: Plain or Packed	N/A		
	47	Test Gage	Yes		
	48	With Rupture Disc	No		
	49	Hydro Test	Required		
	50	Seat Leakage Test	Required		
PURCHASE (will be finalized later)	51	Compliance Standard	N/A		
	52	Manufacturer	Will Be Finalized Later		
	53	Model	Will Be Finalized Later		
54	Serial No.	Will Be Finalized Later			

in Gas Compressor vendor scope of work

Notes: VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

- 1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02 "
- 2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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نگهداشت و افزایش تولید میدان نفتی بینک
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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 32 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number		PSV-2132A				
	2	Service		GAS				
	3	Line No.	Vessel No.	GAS-111-0047A-FN05-2"-PT		-		
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0010_D05 (1 OF 3)		
	5	Discharge to		To FLARE				
	6	Protect Equipment		-				
	7	Area Classification		Zone 2, IIB T4				
	8	NACE MR0175/ISO 15156 Compliance		YES				
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type				
	10	Design Type	Safety, Relief, Safety-Relief	Safety				
	11		Conventional, bellows, Pilot Op.	Conventional				
12	Bonnet Type		Closed					
PROCESS CONDITIONS	13	Fluid	State	GAS		Singel Phase		
	14	Required Capacity		8664.0		kg/h		
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52	kg/kmol	0.85		kg/m3
	16	Oper. Pressure	Set Pressure	54.80	bar-g	62		bar-g
	17	Oper. Temperature	Relieving Temp.	142.3	°C	142.3		°C
	18	Back Pressure	Constant	-		bar-g		
	19		Variable	-		bar-g		
	20		Total	1.0		bar-g		
	21	% Allowable Overpressure		-		10%		
	22	Over Pressure Factor		-		1.10		
	23	Compressibility Factor(Z)		-		0.923		
	24	Latent Heat of Vaporization (Kj/Kg)		-		566.7		
25	Ratio of Specific Heats(Cp/Cv)		-		1.28			
26	Density @ flowing temprature		-		kg/m3			
27	Operating Viscosity		-		cP			
28	Barometric Pressure		14.37		psia			
SELECTION	29	Design Code	Sizing Basis	API 520		-		
	30	Construction Code		API 520		-		
	31	Fire		NO		-		
	32	Basis of Selection		Blocked Outlet		-		
	33	Calculated Area	MM ²	193.67 (VTC)		-		
	34	Required Area	MM ²	397.60 (VTC)		-		
CONNECTIONS	35	Orifice Designation		G (VTC)		-		
	36	Size: Inlet	Outlet	1 1/2" in		3" in		
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#600 FLANGED RF		#150 FLANGED RF		
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)				
	39	Seat and Disc		SS316+RPTFE				
	40	Nozzle		316 SS				
	41	Guide and Rings		VTA				
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)				
	43	Bellows		N/A				
OPTIONS	44							
	45	Cap: Screwed or Bolted		Screwed				
	46	Lever: Plain or Packed		N/A				
	47	Test Gage		Yes				
	48	With Rupture Disc		No				
PURCHASE (will be finalized later)	49	Hydro Test		Required				
	50	Seat Leakage Test		Required				
	51	Compliance Standard		N/A				
52	Manufacturer		Will Be Finalized Later					
53	Model		Will Be Finalized Later					
54	Serial No.		Will Be Finalized Later					

in Gas Compressor vendor
scope of work

Notes:
VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 33 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number		PSV-2133A			
	2	Service		GAS			
	3	Line No.	Vessel No.	GAS-111-0048A-FN05-2"-PT		-	
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0010_D05 (1 OF 3)	
	5	Discharge to		To FLARE			
	6	Protect Equipment		-			
	7	Area Clacification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance		YES			
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11		Conventional, bellows, Pilot Op.	Conventional			
12	Bonnet Type		Closed				
PROCESS CONDITIONS	13	Fluid	State	GAS		Singel Phase	
	14	Required Capacity		8664.0		kg/h	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52 kg/kmol		0.85 kg/m3	
	16	Oper. Pressure	Set Pressure	54.80		62 bar-g	
	17	Oper. Temperature	RelievingTemp.	142.3		142.3 °C	
	18	Back Pressure	Constant			bar-g	
	19		Variable			bar-g	
	20		Total			bar-g	
	21	% Allowable Overpressure				10%	
	22	Over Pressure Factor				1.10	
	23	Compressibility Factor(Z)				0.923	
	24	Latent Heat of Vaporization (Kj/Kg)				566.7	
25	Ratio of Specific Heats(Cp/Cv)				1.28		
26	Density @ flowing temprature				kg/m3		
27	Operating Viscosity		0.01		cP		
28	Barometric Pressure		13.26 ~ 14.37		psia		
SELECTION	29	Design Code	Sizing Basis	API 520		-	
	30	Construction Code		API 520			
	31	Fire		NO			
	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area		MM ²		193.67 (VTC)	
	34	Required Area		MM ²		397.60 (VTC)	
CONNECTIONS	35	Orifice Designation		G (VTC)			
	36	Size: Inlet	Outlet	1 1/2" in		3" in	
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#600 FLANGED RF		#150 FLANGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
OPTIONS	44						
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
	48	With Rupture Disc		No			
PURCHASE (will be finalized later)	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard		N/A			
52	Manufacturer		Will Be Finalized Later				
53	Model		Will Be Finalized Later				
54	Serial No.		Will Be Finalized Later				

in Gas Compressor vendor
scope of work

Notes: VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 34 از 37

PRESSURE SAFETY VALVE

		PSV-2132B	
GENERAL	1	Tag Number	
	2	Service	
	3	Line No.	Vessel No.
	4	Pipe Class / C.A.	P&ID No.
	5	Discharge to	
	6	Protect Equipment	
	7	Area Clacification	
	8	NACE MR0175/ISO 15156 Compliance	
BASIS	9	Nozzle (Full, Semi)	
	10	Design Type	Safety, Relief, Safety-Relief
	11		Conventional, bellows, Pilot Op.
12	Bonnet Type		
PROCESS CONDITIONS	13	Fluid	State
	14	Required Capacity	
	15	Molecular Mass	Sp. Gr. @ relief Tmp
	16	Oper. Pressure	Set Pressure
	17	Oper. Temperature	Relieving Temp.
	18	Back Pressure	Constant
	19		Variable
	20		Total
	21	% Allowable Overpressure	
	22	Over Pressure Factor	
	23	Compressibility Factor(Z)	
	24	Latent Heat of Vaporization (Kj/Kg)	
25	Ratio of Specific Heats(Cp/Cv)		
26	Density @ flowing temprature		
27	Operating Viscosity		
28	Barometric Pressure		
SELECTION	29	Design Code	Sizing Basis
	30	Construction Code	
	31	Fire	
	32	Basis of Selection	
	33	Calculated Area	MM ²
	34	Required Area	MM ²
	35	Orifice Designation	
CONNECTIONS	36	Size: Inlet	Outlet
	37	Rating & Facing :In	Outlet
MATERIALS (VTC)	38	Body and Bonnet	
	39	Seat and Disc	
	40	Nozzle	
	41	Guide and Rings	
	42	Spring	
	43	Bellows	
	44		
OPTIONS	45	Cap: Screwed or Bolted	
	46	Lever: Plain or Packed	
	47	Test Gage	
	48	With Rupture Disc	
	49	Hydro Test	
	50	Seat Leakage Test	
	51	Compliance Standard	
PURCHASE (will be finalized later)	52	Manufacturer	
	53	Model	
	54	Serial No.	

in Gas Compressor vendor
scope of workNotes:
VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 35 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number		PSV-2133B			
	2	Service		GAS			
	3	Line No.	Vessel No.	GAS-111-0048B-FN05-2"-PT		-	
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0010_D05 (2 OF 3)	
	5	Discharge to		To FLARE			
	6	Protect Equipment		-			
	7	Area Classification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance		YES			
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11		Conventional, bellows, Pilot Op.	Conventional			
12	Bonnet Type		Closed				
PROCESS CONDITIONS	13	Fluid	State	GAS		Single Phase	
	14	Required Capacity		8664.0		kg/h	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52	kg/kmol	0.85	kg/m3
	16	Oper. Pressure	Set Pressure	80		62 bar-g	
	17	Oper. Temperature	Relieving Temp.	142.3		142.3 °C	
	18	Back Pressure	Constant	-		bar-g	
	19		Variable	1.0		bar-g	
	20		Total	1.0		bar-g	
	21	% Allowable Overpressure		10%			
	22	Over Pressure Factor		1.10			
	23	Compressibility Factor(Z)		0.923			
	24	Latent Heat of Vaporization (Kj/Kg)		566.7			
25	Ratio of Specific Heats(Cp/Cv)		1.28				
26	Density @ flowing temprature		0.06		kg/m3		
27	Operating Viscosity		0.017		cP		
28	Barometric Pressure		13.26 ~ 14.37		psia		
SELECTION	29	Design Code	Sizing Basis	API 520		-	
	30	Construction Code		API 520			
	31	Fire		NO			
	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area		MM ²		193.67 (VTC)	
	34	Required Area		MM ²		397.60 (VTC)	
CONNECTIONS	35	Orifice Designation		G (VTC)			
	36	Size: Inlet	Outlet	1 1/2" in		3" in	
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#600 FLANGED RF		#150 FLANGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
OPTIONS	44						
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
	48	With Rupture Disc		No			
PURCHASE (will be finalized later)	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard		N/A			
52	Manufacturer		Will Be Finalized Later				
53	Model		Will Be Finalized Later				
54	Serial No.		Will Be Finalized Later				

In Gas Compressor Vendor
scope of workNotes:
VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmium plated shall be considered (vendor to advise)



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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D05	0009	DT	IN	120	PEDCO	GCS	BK

شماره صفحه: 36 از 37

PRESSURE SAFETY VALVE

GENERAL	1	Tag Number		PSV-2132C			
	2	Service		GAS			
	3	Line No.	Vessel No.	GAS-111-0047C-FN05-2"-PT		-	
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm		BK-GCS-PEDCO-120-PR-PI-0010_D05 (3 OF 3)	
	5	Discharge to		To FLARE			
	6	Protect Equipment		-			
	7	Area Classification		Zone 2, IIB T4			
	8	NACE MR0175/ISO 15156 Compliance		YES			
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type			
	10	Design Type	Safety, Relief, Safety-Relief	Safety			
	11		Conventional, bellows, Pilot Op.	Conventional			
12	Bonnet Type		Closed				
PROCESS CONDITIONS	13	Fluid	State	GAS		Singel Phase	
	14	Required Capacity		8664.0		kg/h	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52	kg/kmol	0.85	kg/m3
	16	Oper. Pressure	Set Pressure	54.80	bar-g	62	bar-g
	17	Oper. Temperature	Relieving Temp.	142.3	°C	142.3	°C
	18	Back Pressure	Constant	bar-g			
	19		Variable	bar-g			
	20		Total	bar-g			
	21	% Allowable Overpressure		10%			
	22	Over Pressure Factor		1.10			
	23	Compressibility Factor(Z)		0.923			
	24	Latent Heat of Vaporization (Kj/Kg)		566.7			
25	Ratio of Specific Heats(Cp/Cv)		1.28				
26	Density @ flowing temprature		kg/m3				
27	Operating Viscosity		cP				
28	Barometric Pressure		13.2	14.37	psia		
SELECTION	29	Design Code	Sizing Basis	API 520		-	
	30	Construction Code		API 520			
	31	Fire		NO			
	32	Basis of Selection		Blocked Outlet			
	33	Calculated Area		193.67 (VTC)			
	34	Required Area		397.60 (VTC)			
CONNECTIONS	35	Orifice Designation		G (VTC)			
	36	Size: Inlet	Outlet	1 1/2" in	3" in		
MATERIALS (VTC)	37	Rating & Facing :In	Outlet	#600 FLANGED RF		#150 FLANGED RF	
	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)			
	39	Seat and Disc		SS316+RPTFE			
	40	Nozzle		316 SS			
	41	Guide and Rings		VTA			
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)			
	43	Bellows		N/A			
OPTIONS	44						
	45	Cap: Screwed or Bolted		Screwed			
	46	Lever: Plain or Packed		N/A			
	47	Test Gage		Yes			
	48	With Rupture Disc		No			
PURCHASE (will be finalized later)	49	Hydro Test		Required			
	50	Seat Leakage Test		Required			
	51	Compliance Standard		N/A			
52	Manufacturer		Will Be Finalized Later				
53	Model		Will Be Finalized Later				
54	Serial No.		Will Be Finalized Later				

in Gas Compressor vendor scope of work

Notes: VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)



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DATA SHEETS FOR PRESSURE & SAFETY RELIEF VALVES

شماره پیمان: 053 - 073 - 9184

پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	IN	DT	0009	D05

شماره صفحه: 37 از 37

PRESSURE SAFETY VALVE

		Tag Number		PSV-2133C		
GENERAL	1	Tag Number		PSV-2133C		
	2	Service		GAS		
	3	Line No.	Vessel No.	GAS-111-0048C-FN05-2"-PT		
	4	Pipe Class / C.A.	P&ID No.	FN05 / 3mm	BK-GCS-PEDCO-120-PR-PI-0010_D05 (3 OF 3)	
	5	Discharge to		To FLARE		
	6	Protect Equipment		-		
	7	Area Classification		Zone 2, IIB T4		
	8	NACE MR0175/ISO 15156 Compliance		YES		
BASIS	9	Nozzle (Full, Semi)		Full Nozzle, Spring Loaded Type		
	10	Design Type	Safety, Relief, Safety-Relief	Safety		
	11		Conventional, bellows, Pilot Op.	Conventional		
12	Bonnet Type		Closed			
PROCESS CONDITIONS	13	Fluid	State	GAS	Singel Phase	
	14	Required Capacity		8664.0	kg/h	
	15	Molecular Mass	Sp. Gr. @ relief Tmp	24.52	kg/kmol	0.85
	16	Oper. Pressure	Set Pressure	54.80	bar-g	62
	17	Oper. Temperature	Relieving Temp.	142.3	°C	142.3
	18	Back Pressure	Constant		bar-g	
	19		Variable		bar-g	
	20		Total		bar-g	
	21	% Allowable Overpressure		10%		
	22	Over Pressure Factor		1.10		
	23	Compressibility Factor(Z)		0.923		
	24	Latent Heat of Vaporization (Kj/Kg)		566.7		
25	Ratio of Specific Heats(Cp/Cv)		1.28			
26	Density @ flowing temprature		kg/m3			
27	Operating Viscosity		cP			
28	Barometric Pressure		13.26 ~ 14.37 psia			
SELECTION	29	Design Code	Sizing Basis	API 520	-	
	30	Construction Code		API 520		
	31	Fire		NO		
	32	Basis of Selection		Blocked Outlet		
	33	Calculated Area		193.67 (VTC)		
	34	Required Area		397.60 (VTC)		
	35	Orifice Designation		G (VTC)		
CONNECTIONS	36	Size: Inlet	Outlet	1 1/2" in	3" in	
	37	Rating & Facing :In	Outlet	#600 FLANGED RF	#150 FLANGED RF	
MATERIALS (VTC)	38	Body and Bonnet		ASTM A216 GR. WCB (VTC)		
	39	Seat and Disc		SS316+RPTFE		
	40	Nozzle		316 SS		
	41	Guide and Rings		VTA		
	42	Spring		ASTM A216 GR. WCB (VTC) (Note2)		
	43	Bellows		N/A		
	44					
OPTIONS	45	Cap: Screwed or Bolted		Screwed		
	46	Lever: Plain or Packed		N/A		
	47	Test Gage		Yes		
	48	With Rupture Disc		No		
	49	Hydro Test		Required		
	50	Seat Leakage Test		Required		
	51	Compliance Standard		N/A		
PURCHASE (will be finalized later)	52	Manufacturer		Will Be Finalized Later		
	53	Model		Will Be Finalized Later		
	54	Serial No.		Will Be Finalized Later		

in Gas Compressor vendor scope of work

Notes: VTA : Vendor to Advise in bidding stage VTC : Vendor to confirm in bidding stage N/A: Not applicable

1- For material details refer to "Piping Material Specification Doc No." BK-GCS-PEDCO-120-PI-SP-0001-D02".

2- Suitable coating such as cadmiun plated shall be considered (vendor to advise)