

**Schlumberger****Supplier Name:** Schlumberger**Purchase Order Title:** Glycol Regeneration Package**Equipment Tag Number(s):** ZZZ-323000**Supplier (Internal) Document No:** P-AH023-01Z-IE-520-0008**Company Project Document Number**

Project ID Purchase Order Number SDRL Code Seq. No Sht No

GM004 - 241ML002 - C13 - 00092**DOCUMENT TITLE:** Instrument Data Sheet Pressure Regulator**DOCUMENT REVIEW STATUS**

CODE:	1	2	3	4	5
NAME:	SH Choi				
SIGNATURE:	SH Choi				
DATE:	2020-07-03				

Review Legend

CODE 1	Document is accepted as Final. Supplier shall proceed with manufacture. Any changes to the document shall require resubmission to Company.
CODE 2	Signifies general acceptance of both quality and content of the document but with minor points to be amended by Supplier. Providing that the comments are incorporated, Supplier may continue with manufacture pending full acceptance. A revised copy shall be returned for final acceptance.
CODE 3	The quality and content are considered by Company to be non-compliant and/or unfit for purpose. Such documents shall be reviewed by Supplier to take note of the reasons for rejection and revise them accordingly. The revised document(s) shall then be resubmitted.
CODE 4	Signifies that prior Company approval is not required and the documents will be incorporated into the EDMS "as is". Individual documents given Code 4 status may be required to be included in a data manual, which will be subject to a collective review and subject at that time to Company approval. No further action required at time of submission.
Code 5	Document has been cancelled or voided and does not need to be progressed further. No further action required at time of submission

Comments Summary**Issue Record**

Z01	Z01	7/1/2020	As Built	R. Sankar	Hari S.	Ayu
04	04	4/15/2019	Issued for Review	R. Sankar	Hari S.	A. Sitton
03	03	1/19/2019	Issued for Review	R. Sankar	Hari S.	J.Collett
02	02	3/24/2018	Issued for Review	R. Sankar	Hari S.	J.Collett
01	01	7/17/2017	Issued for Review	Hari.S	R. Sankar	J.Collett
Company Rev No	Supp Rev	Date	Reason for Issue	Prepared	Checked	Approved

The document consists of this front sheet plus 6 pages.



**SUPPLIER DOCUMENT
FRONT SHEET
Mad Dog Phase 2 Project**

Schlumberger

Sl. No.	Tag No.	Item
1	M2-PCV -32301901	Pressure Regulators
2	M2-PCV -32301902	Pressure Regulators

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Z01	1-Jul-20	As Built	R. Sankar	Hari S.	Ayu
04	12-Apr-19	Issued for Review	Ram Sankar	Hari.S	J.Collett
03	19-Jan-19	Issued for Review	Ram Sankar	Hari.S	J.Collett
02	24-Mar-18	Issued for Review	Ram Sankar	Hari.S	J.Collett
01	17-Jul-17	Issued for Review	Ram Sankar	Hari.S	J.Collett

Company Rev No.	Date	Reason for Issue	Prepared	Checked	Approved
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Project Document Number					
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Project ID	Originator Code	Package Number	SDRL Code	Seq. No.	Rev. No.
GM004	241	ML002	C13	00092	Z01

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GENERAL	1	Tag Number			M2-PCV -32301901							
	2	Service			UTILITY AIR TO OVERHEAD CONDENSER PUMP							
	3	P&ID Number		Equipment Number		GM004-241ML002-C01-00015-004		PBE-323019				
	4	Line Number			1"-AU-3230864-K01T							
	5	Line Material			316 S.S. / 316L S.S.							
	6	Line Size		Line Schedule		1 in		80S				
	7	Insulation		Thickness								
PROCESS CONDITIONS	8	Process Fluid	Phase	State	Utility Air		Single Phase		Gas/Vapor			
	9				Units	Maximum		Normal		Minimum		
	10	Flow Rate			Sft³/min	13.66		12.42		3.76		
	11	Inlet Temperature			°F	120		120		120		
	12	Inlet Pressure			psi-g	135		135		135		
	13	Vapour Pressure			psi-a							
	14	Density / Specific Gravity										
	15	Viscosity			cP	0.0204		0.0204		0.0204		
	16	Delta P Available			85		psi					
	17	Cv	Cs	Cg	0.045/0.149/0.164		-		-			
	18	Valve:	Fl*	Km*	-		-					
	19	Max. Shutoff Delta P			200		psi					
	20	Delta P Allowable		Sizing Delta P		85 psi		85 psi				
	21	Molecular Mass		Relative Density		28.95						
	22	Quality %		% Solids		-						
	23	Critical Pressure			532.7		psi-g					
	24	Compressibility		Sp Heat Ratio Cp / Cv		0.9993		1.422				
	25	Trace Elements										
BODY / TRIM	26	Valve Type			Pressure Reduction (Note-9)							
	27	Body Size		Port Size		1 in		0.631 in				
	28	Number of Ports		Guiding		One		Stem				
	29	End Conn.	Size	Type	Rating	1 in		Flanged		150# RF ANSI		
	30	Body Material			CF8M SST							
	31	Packing Material			PTFE							
	32	Seal Input			N/A							
	33	Trim Form			N/A							
	34	Trim Material			316 SST							
	35	Seat Material			316 SST							
	36	Required Seat Tightness			ANSI IV (standard)							
	37	Max. Allowable Sound Level dBA			-							
	38	NACE Compliance			Note-7							
ACTUATOR / PILOT	39	Type: Reducing / Relief		Self / Pilot Operated		Reducing		Self				
	40	Upstream / Downstream Regulation		Pilot Model Number*		Downstream		N/A				
	41	Supply to Pilot			N/A							
	42	Self Cont.		Ext. Conn.		Yes		No				
	43	Diaphragm Material			FKM							
	44	Diaphragm Rating			215		psi					
	45	Housing Vent Connection			Screwed							
	46	Spring Range*		Spring Material		25 to 75 psi		Powder-coated steel				
	47	Set Point		Actuator Model Number*		50 psig		1E399027142				
	48	Failure Action (Open / Closed)			Close							
	49	Tubing Diamter & Material		Tube Fitting Type & Material		N/A N/A		N/A				
OPTIONS	50	Regulator		Supply Gauge		N/A		N/A				
	51	Internal Relief		Filter		N/A		N/A				
	52											
PURCHASE	53	Manufacturer*			FISHER							
	54	Model*			M95H-3063-4471100							
	55	Purchase Order Number			4511745993							

* information supplied by manufacturer unless already specified

Z01	1-Jul-20	Ram	Hari.S	Ayu	As Built	INSTRUMENT DATSHEET Pressure Regulator		
04	12-Apr-19	Ram	Hari.S	J.C	Issued for Review			
03	22-Nov-18	Ram	Hari.S	J.C	Issued for Review			
02	24-Mar-18	Ram	Hari.S	J.C	Issued for Review			
01	17-Jul-17	Ram	Hari.S	J.C	Issued for Review			
No.	Date	By	Chkd	Appr	Description	Code: 9208	Dwg. No.: GM004-241ML002-C13-00092	Rev.: Z01

1. A 316 SS tag inscribed with tag number shall be securely attached to each instrument and Instrument tag plate details shall be as per Clause no. 18 of "GPO-EN-SPE-30353 - B02" for tag plate details.
2. Comply with GM004-IC-SPE-051-00001-005 & GPO-EN-SPE-30353 - B02
3. All pneumatic vent ports shall include a dust excluder.
4. Bolting, nuts & gaskets as per GM004-PI-SPE-010-00081 Piping Material Specifications
5. Design of Pressure Regulators shall confirm to ANSI/ISA-75 & the piping specification GM004-PI-SPE-010-00081
6. Paint System -SS uninsulated per GPO-EN-SPE-06602
7. Material shall confirm to Nace MR0175-2002
8. Design Temperature: 200 °F & Design Pressure: 200 psig
9. *Diaphragm spring actuated with plug type trim*

N/A-Not Applicable

GENERAL	1	Tag Number			M2-PCV -32301902								
	2	Service			BLANKET GAS TO GLYCOL REBOILER								
	3	P&ID Number		Equipment Number		GM004-241ML002-C01-00015-008							
	4	Line Number			2"-GF-3230844-A03F								
	5	Line Material			Carbon Steel								
	6	Line Size		Line Schedule		2"		160					
	7	Insulation		Thickness									
PROCESS CONDITIONS	8	Process Fluid	Phase	State	LP fuel Gas		Single Phase		Gas/Vapor				
	9				Units	Maximum		Normal		Minimum			
	10	Flow Rate			Sft³/h		19006		17279		5184		
	11	Inlet Temperature			°F		140		140		140		
	12	Inlet Pressure			psi-g		110		110		110		
	13	Vapour Pressure			psi-a								
	14	Density / Specific Gravity											
	15	Viscosity			cP		0.011		0.011		0.011		
	16	Delta P Available			98				psi				
	17	Cv	Cs	Cg	1.172/3.907/4.297		-		-				
	18	Valve:	Fl*	Km*	-				-				
	19	Max. Shutoff Delta P			150				psi				
	20	Delta P Allowable		Sizing Delta P		98		psi		98		psi	
	21	Molecular Mass		Relative Density		26.37							
	22	Quality %		% Solids		-				-			
	23	Critical Pressure			1366.1				psi-g				
	24	Compressibility		Sp Heat Ratio Cp / Cv		0.968				1.1874			
	25	Trace Elements											
BODY / TRIM	26	Valve Type			Pressure Reduction (Note-9)								
	27	Body Size		Port Size		2		in		1.142		in	
	28	Number of Ports		Guiding		One				Stem			
	29	End Conn.	Size	Type	Rating	2		in		Flanged		300# RF ANSI	
	30	Body Material			CF8M SST								
	31	Packing Material			PTFE								
	32	Seal Input			N/A								
	33	Trim Form			N/A								
	34	Trim Material			316 SST								
	35	Seat Material			316 SST								
	36	Required Seat Tightness			ANSI IV (standard)								
	37	Max. Allowable Sound Level dBA			-								
	38	NACE Compliance			Note-7								
ACTUATOR / PILOT	39	Type: Reducing / Relief		Self / Pilot Operated		Reducing				Self			
	40	Upstream / Downstream Regulation		Pilot Model Number*		Downstream				N/A			
	41	Supply to Pilot			N/A								
	42	Self Cont.		Ext. Conn.		Yes				No			
	43	Diaphragm Material			Neoprene (CR)								
	44	Diaphragm Rating			300				psi				
	45	Housing Vent Connection			Screwed								
	46	Spring Range*		Spring Material		5 to 80		psi		Powder-coated steel			
	47	Set Point		Actuator Model Number*		12		psig		ERCA04290A0			
	48	Failure Action (Open / Closed)			Close								
	49	Tubing Diamter & Material		Tube Fitting Type & Material		N/A		N/A		N/A			
OPTIONS	50	Regulator		Supply Gauge		N/A				N/A			
	51	Internal Relief		Filter		N/A				N/A			
	52												
PURCHASE	53	Manufacturer*			FISHER								
	54	Model*			M95H-3063-4073000								
	55	Purchase Order Number			4511745993								

* information supplied by manufacturer unless already specified

201	1-Jul-20	Ram	Hari.S	Ayu	As Built	INSTRUMENT DATSHEET Pressure Regulator		
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03	22-Nov-18	Ram	Hari.S	J.C	Issued for Review			
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01	17-Jul-17	Ram	Hari.S	J.C	Issued for Review			
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6. Paint System -SS uninsulated per GPO-EN-SPE-06602
7. Material shall confirm to Nace MR0175-2002
8. Design Temperature: 200 °F & Design Pressure: 150 Psig
- 9. Diaphragm spring actuated with plug type trim**

N/A-Not Applicable