

Mad Dog Phase 2 Project



INSTRUMENT DATASHEET

Pressure Regulator

M2-PCV -61200201

Z01	As Built (No Change)	DHP	2021-08-13	DJK	YHJ	
C01	Issued for Purchase	DE	2018-01-10	RS	DR/SK	
B01	Issued for Bid	DE	2017-09-26	RS	DR/SK	
A01	Issued for IDC	DE	2017-09-01	RS	DR/SK	
Rev	Description	By	Date	Chkd	Appr	Client Endorser

Sector Code:	20	System Code:	61
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Document Number & Revision		M2-PCV -61200201-SP	
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		GM004-IC-DAT-241-03652	Z01

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GENERAL	1	Tag Number			M2-PCV -61200201			
	2	Service			FW JOCKEY PMP DSCH TO OB			
	3	P&ID Number	Equipment Number		GM004-PR-PID-010-00600-00		PBE-612002	
	4	Line Number			4"-FW-6120090-X01TM			
	5	Line Material			Cupro-nickel 90/10			
	6	Line Size	Line Schedule		4 in			
	7	Insulation	Thickness		0		in	
PROCESS CONDITIONS	8	Process Fluid	Phase	State	Sea Water		Single Phase	
	9				Units	Maximum	Normal	Minimum
	10	Flow Rate			AUS gal/min	250	100	25
	11	Inlet Temperature			°F	120	86	30
	12	Inlet Pressure			psi-g		175	0
	13	Vapour Pressure			psi-a		0.9492	
	14	Density / Specific Gravity						
	15	Viscosity			cP		0.82	
	16	Delta P Available			179	psi		
	17	Cv	Cs	Cg	30			
	18	Valve:	Fl*	Km*				
	19	Max. Shutoff Delta P			165	psi		
	20	Delta P Allowable	Sizing Delta P		80	psi	80	psi
	21	Molecular Mass	Relative Density		18			
	22	Quality %	% Solids					
	23	Critical Pressure			3208	psi-g		
	24	Compressibility	Sp Heat Ratio Cp / Cv					
25	Trace Elements							
BODY / TRIM	26	Valve Type			Relief Regulator			
	27	Body Size	Port Size		in		in	
	28	Number of Ports	Guiding		One			
	29	End Conn.	Size	Type	Rating	4" in	Flanged	150 # FF
	30	Body Material			Ni-Al-Bronze			
	31	Packing Material						
	32	Seal Input						
	33	Trim Form			Anti Cavitation			
	34	Trim Material			MONEL			
	35	Seat Material						
	36	Required Seat Tightness						
	37	Max. Allowable Sound Level dBA			85			
	38	NACE Compliance			N/A			
ACTUATOR / PILOT	39	Type: Reducing / Relief	Self / Pilot Operated		Relief		Pilot	
	40	Upstream / Downstream Regulation	Pilot Model Number*		UpStream			
	41	Supply to Pilot						
	42	Self Cont.	Ext. Conn.		No		Yes	
	43	Diaphragm Material						
	44	Diaphragm Rating			psi-g			
	45	Housing Vent Connection						
	46	Spring Range*	Spring Material		20-200	psi-g		
	47	Set Point	Actuator Model Number*		175	psi-g		
	48	Failure Action (Open / Closed)						
OPTIONS	49	Tubing Diamter & Material	Tube Fitting Type & Material		3/8 in	Swagelok	2507	
	50	Regulator	Supply Gauge					
	51	Internal Relief	Filter		N/A			
PURCHASE	52	Manufacturer*			Cla-Val			
	53	Model*			50G-49KX			
	54	Purchase Order Number			241IC017			

Notes: See notes

* information supplied by manufacturer unless already specified

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1. PRESSURE REGULATORS AND ACCESSORIES SHALL BE FURNISHED AND COMPLETELY ASSEMBLED AND INTEGRATED PER REFERENCED P&ID
2. MATERIALS SHALL BE EQUAL OR BETTER. VENDOR SHALL ENSURE FULL COMPATIBILITY (DESIGN, FLUID, NON-GALVANIC, ETC).
3. FUNCTION IS PRESSURE RELIEF TO ENSURE PUMP MINIMUM FLOW. ALSO, THE VENDOR-SELECTED PRESSURE REGULATOR SHALL INCLUDE INTEGRAL COMPONENTS TO PROTECT PUMP DISCHARGE PIPING FROM WATER HAMMER PRESSURE SPIKES DURING PUMP START OPERATIONS. VENDOR TO SIZE AND SELECT TO SUIT THE GIVEN PROCESS DATA.
4. REGULATOR IS UL LISTED FOR SEAWATER SERVICE.
5. REGULATOR TYPE: GLOBE PATTERN
6. KX IN THE MODEL =: MONEL (ANTI-CAV) TRIM W/ 2507 Swagelok TUBE FITTINGS & TUBING.
7. PRESSURE REGULATOR CAVITATION ANALYSIS CALCULATION BY THE VENDOR IS REQUIRED TO CONFIRM THAT REGULATOR WILL NOT BE DAMAGED DUE TO CAVITATION.
8. VENDOR SHALL SUPPLY A SECURELY ATTACHED (SCREWED OR RIVETED) 316 SS NAMEPLATE THAT SHALL INCLUDE THE FOLLOWING INFORMATION AS A MINIMUM:
 - INSTRUMENT TAG NUMBER
 - REGULATOR SIZE
 - FLANGE RATING(S)
 - MANUFACTURER NAME
 - MODEL NUMBER
 - SERIAL NUMBER
9. REGULATOR ESTIMATED % OPEN AT xxGPM = xx% , ENTRANCE VELOCITY= xx FT/SEC.
10. RESEATING PRESSURE AFTER RELIEF = 5% OF SET PRESSURE.
11. CRL PILOT VALVE RANGE = 20-200 PSIG, SET @ 165 PSIG for relief, CRA PILOT VALVE RANGE = 15-75 PSIG SET @ 45 PSIG for start up.
13. REMOTE SENSING IS AT UPSTREAM PRESSURE TRANSMITTER CONNECTION.
14. 20' of stright run pipe downstream of the valve to avoid pipe vibration.

				INSTRUMENT SPECIFICATION Pressure Regulator		 	
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