				Instrument Specifications Ref. 6.3.2 - 21.01				Page No	1 (3)
				Issue No.	Description	By	Chkd.	Apprd.	Date
Project No:									
Client:									
Plant:				1A	First Issue	SPK	NS	Erki	15/01/2007
		VACUUM BREAKER							
GENERAL	1	Tag No.		PCV-1001	PCV-1002				
	2	Service		Nitrogen flow to C1050A (H2 vent absorber)	Nitrogen flow to C1050B(H2 vent absorber)				
	3	Process Fluid		Nitrogen	Nitrogen				
	4	Fluid state		Gas	Gas				
	5	P&ID No.		PID-10-04	PID-10-04				
	6	Line No		10716	10716				
	7	Line material,Size & Sch		SS304 , 1" & 10S	SS304 , 1" & 10S				
	8	Function		Downstream pressure control					
PROCESS CONDITION	9	Flow Rate Nor/Max	NM^3/hr	10 / — NM^3/hr	10 / — NM^3/hr				
	10	Inlet Pressure Nor/Max	Kg/cm^2 (g)	0.2 / --	0.2 / --				
	11	Outlet Pressure	Kg/cm^2 (g)	See Note-A	See Note-B				
	12	Pressure Drop	Kg/cm^2	0.3	0.3				
	13	Temperature Nor/Max	^0C	20-40	20-40				
	14	Shut Off Pressure	Kg/cm^2 (g)						
	15	Density	Kg/M^3	6.6	6.6				
	16	Viscosity	Cps						
	17	Mol Weight	Cps	28	28				
	18	Allowable SPL	dB						
VALVE	19	Type		Globe valve - single seated	Globe valve - single seated				
	20	Body Material		SS304L	SS304L				
	21	Body Size		1"	1"				
	22	End Connection &Rating		1", ANSI 150#	1", ANSI 150#				
	23	Face Finish		RF	RF				
	24	Trim Size		●	●				
	25	Trim Material		SS304L	SS304L				
	26	Seat material		SS304L	SS304L				
	27	No of Ports		One	One				
	28	Packing Material		PTFE/ Viton	PTFE/ Viton				
	29	Trim Characteristics		●	●				
	30	Seat Leakage		Class IV	Class IV				
	31	Cv at Nor/Max Flow		●	●				
	32	Valve Cv		●	●				
	33								
	34								
ACTUATOR	35	Type		Pressure balanced diaphragm	Pressure balanced diaphragm				
	36	Pilot Int/ext		●	●				
	37	Self Control		Downstream pressure	Downstream pressure				
	38	External Control							
	39	Diaphragm material		EPDM	EPDM				
	40	Spring Range	Kg/cm^2 (g)	●	●				
	41	Set Point	Kg/cm^2 (g)	Adjustable see note-A	Adjustable see note-B				
	42								
	43								
ACCESSORIES	44								
	45								
	46								
	47								
	48								
	49								
	50								
	51	Manufacturer		●	●				
	52	Model no		●	●				
	53								

Notes: ● Vendor to state

A) For PCV-1001 shall have set pressure slightly below atmosphere pressure so that cessel C -1050 A is never subjected to vacuum. The inlet Nitrogen gas pressure is 0.2 $Kg/cm^2(g)$ and set point shall be (-) 0.1 $Kg/cm^2(g)$ downstream.(Factory calibrated)

B) For PCV-1002 shall have set pressure slightly below atmospheric pressure so that vessel C -1050 B is never subjected to vacuum. The inlet Nitrogen gas pressure is 0.2 $Kg/cm^2(g)$ and set point shall be (-) 0.1 $Kg/cm^2(g)$ downstream.(Factory calibrated)

Notes also on Page 3.

			Instrument Specifications Ref. 6.3.2 - 21.02				Page No	2 (3)	
			Issue No.	Description	By	Chkd.	Apprd.	Date	
Project No:									
Client:									
Plant:			1A	First Issue	SPK	NS	Erki	15/01/2007	
		VACUUM BREAKER							
GENERAL	1	Tag No.		PCV-3104					
	2	Service		Vacuum protection for S3121 & S3120 crude coalescer- 1 & 2					
	3	Process Fluid		Air/ Elevated oxygen/ 35% H2O2 (aqueous)					
	4	Fluid state		Liquid					
	5	P&ID No.		PID-31-01					
	6	Line No		31061-1"-HP-43601					
	7	Line material,Size & Sch		SS316, 1", 10S					
	8	Function		S3120 & S3121 vacuum protection					
PROCESS CONDITION	9	Flow Rate Nor/Max	~~Kg/hr~~ / M^3/hr	5M³/hr					
	10	Inlet Pressure Nor/Max	Kg/cm^2 (g)	0					
	11	Outlet Pressure	Kg/cm^2 (g)	0.1 to 0.2					
	12	Pressure Drop	Kg/cm^2	Permissible DP = 0.05					
	13	Temperature Nor/Max	^0C	20-40					
	14	Shut Off Pressure	Kg/cm^2 (g)	1					
	15	Density	Kg/M^3	1(Atm.air)|1120 (25 wt% H2O2)					
	16	Viscosity	Cps						
	17	Mol Weight							
	18	Allowable SPL	dB						
VALVE	19	Type		Globe valve- Single seated					
	20	Body Material		SS316L					
	21	Body Size		1"					
	22	End Connection &Rating		1", ANSI 150#					
	23	Face Finish		RF					
	24	Trim Size		●					
	25	Trim Material		SS316L					
	26	Seat material		SS316L					
	27	No of Ports		One					
	28	Packing Material		PTFE/ Viton					
	29	Trim Characteristics		●					
	30	Seat Leakage		Tight shutoff					
	31	Cv at Nor/Max Flow		●					
	32	Valve Cv		●					
	33								
	34								
ACTUATOR	35	Type		Pressure balance diaphragm					
	36	Pilot Int/ext		●					
	37	Self Control		Downstream pressure					
	38	External Control							
	39	Diaphragm material		VITON/ EPDM with PTFE protective foil.					
	40	Spring Range	$Kg/cm^2(g)$	●					
	41	Set Point	$Kg/cm^2(g)$	0 to 0.1 see below note-1					
	42								
	43								
ACCESSORIES	44			Grease Free Design					
	45								
	46								
	47								
	48								
	49								
	50								
	51	Manufacturer		●					
	52	Model no		●					
	53								

Notes: ● Vendor to state

1) The valve outlet is connected to S-3121 and its function is to prevent S-3121 pressure falls below normal pressure. Under normal operation inlet pressure is 0 $Kg/cm^2(g)$ and outlet pressure is 0.1 $Kg/cm^2(g)$ and the valve is fully close (tight shutoff). The valve shall open whenever S-3121 pressure falls below atmosphere.

Notes also on Page 3

VACUUM BREAKER

Notes :

1. Vendor shall submit sizing calculation along with the offer for each tags.Vendor shall also submit flow & regulation characteristic of the valves offered.

2. This datasheet along with standard specification for Vacuum breaker valves / regulators , Specification No.IN-021 and Document schedule IN-021.01 forms the complete specification for the instrument.

3. Vendor shall quote for 2 years recommended spares for Vacuum breaker valves / regulators.