
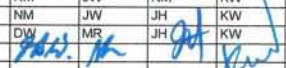
		WEST CLIFF COAL PREPARATION PLANT RAW COAL CIRCUIT AND RELIABILITY IMPROVEMENT PROJECT								Equipment tag: FV 4-3C.1			
		Valve Datasheet ACTUATED ON/OFF KNIFE GATE VALVE DN450											
Electronic version current Uncontrolled copy valid only at time of printing													
FILE NAME .: Date Printed:	333588-0000-60-107-0085 17-Sep-10						Current Revision no.: Number of pages:				1 1		
Usage: Project No.: Plant Area: Equipment Description:	CONTROL 333588 0600 ACTUATED VALVE		A 0 1	15/04/10 06/07/10 17/09/2010	Internal Review Approved for Enquiry Approved for Use	TD TD TD	NM JW NM JW JH JH JH JH MR MR MR MR MR MR MR MR 						
			REV	Date	Description of Issue	Originator	CHKD	INSTR LEAD	AREA PIPE ENG.	AREA PROCESS ENG.	AREA MECH ENG.	R E V	
IDENTITY	1	Equipment Tag	Old Tag	FV 4-3C.1								1	
	2	P&ID Number	WCP-10021										
	3	Service Description	Actuated Knife Gate valve										
	4	Operated Type	Pneumatic Actuated										
	5	Valve Type	VK3										
	6	Valve Code	VK3-43-450										
	7	Area	0600										
	8	Hazardous Area Classification	None										
	9	Installation Detail	#										
EQUIPMENT / LINE DATA	10	Equipment Number	403-V0624										
	11	Line Number	450-SL-4.03C-XN										
	12	Line Size and Schedule	DN450				Extra Strong						
	13	Pipe Material	Carbon Steel										
	14	Pipe Code	AS 4041										
	15	Jacket Material											
	16	Flange Rating	1400kPag										
	17	Fluid Medium	Slurry										
SERVICE CONDITIONS	18	Fluid State	% Solids (w/w)	Liquid				9%					
	19	Fail Action (Loss of Signal / Loss of Air)	Fail Close				Fail Last				1		
	20	Air Supply Pressure (Min / Nominal / Max) (kPag)	420 kPa				690 kPa				850 kPa		
	21		UNITS	OPERATING				MINIMUM				MAXIMUM	
	22	Slurry Flow	m³/h	734									
	23	Gas Flow	Am³/h	N/A									
	24	Inlet Pressure	kPag	20				0				50	
	25	Outlet Pressure	kPag	N/A									
	26	Pressure Drop	kPa	N/A									
	27	Inlet Temperature	°C	20				10				35	
	28	Inlet Specific Gravity		1.03									
	29	Inlet Compressibility Factor		N/A									
	30	Inlet Viscosity	cP	N/A									
	31	Inlet Critical Pressure	KPag	N/A									
	32	Ambient Temperature °C	Max shut-off pressure (kPag)	0 to 50 °C									
	CALCULATED RESULTS	33	Inlet Vapour Pressure	kPa (estimated)	20								
34		Flow Coefficient (CV)	N/A										
VALVE BODY	35	Travel	N/A										
	36	Manufacturer	Model No.	Keystone				Figure 952 (Note 1, 2, 3 & 4)				1	
	37	Body Type	Reference Std	Knife Gate Lugged, Uni-direct* & Deflect* Cone				#				1	
	38	Body Size	Face to Face Dim.	DN 450				98mm ## (Including deflection cone & gasket)				1	
	39	Body Material	Flange Material	ASTM A351 CF8				N/A					
	40	Steam Jacket Type	Jacket Material	N/A				N/A					
	41	End Connection Type	Rating	Lugged to suit table E				1000kPag					
	42	Selected CV	Flow Characteristic	N/A				N/A					
	43	Bonnet Type	Bonnet Material	N/A				N/A					
	44	Trim Type / Size	Gland packing	N/A				H-LON					
	45	Seat Material	Stem Material	ASTM A351 CF8				Stainless Steel 304					
	46	Mass		170 kg ##								1	
	47	Plug / Ball / Disc Material		Stainless Steel 316									
	VALVE ACTUATOR	48	Break Torque (Nm)	Leakage	#				Tight Shutoff				
49		Estimated Sound Pressure Level (@ 1m)	N/A										
50		NACE Cert. Req'd - Yes or No	No										
51		Manufacturer	Model No.	Keystone				F738 Type P13				1	
52		Type	Action	Double Acting Cylinder				Air to open and close					
53		Spring Size	End Cap Material	N/A				Epoxy coated aluminium					
SOLENOID	54	Force / Torque	Mass	#				91 kg ##				1	
	55	Mounting Orientation	Accessories	Top - perpendicular to pipe				Supporting bracket				1	
	56	Manufacturer	Model No.	SMC				EV57-10-FG-D-3-A04T MO with sub-base V57-3-A02T				1	
	57	Type	Qty	5/2 way				1					
	58	Coil Voltage	Power	24VDC									
	59	Electrical connection	Enclosure	M20 x 1.5 Wired to limit switch box				Anodised Aluminium IP65					
	60	Exhaust port		With									
	61	Manual override		Required without the use of a tool to operate									
LIMIT SWITCHES	62	Connection type	Connection and Material	G 1/4				304 S/S					
	63	Hazardous Area Certification	None										
	64	Manufacturer	Model No.	Keystone				Proximity Switch				1	
	65	Type	Qty	Proximity				2					
ACCESSORIES	66	Contact type/rating	Electrical connection	SPDT				24VDC				10m flying leads	1
	67	Mounting / Enclosure	Proximity switches to be mounted on actuator assembly (Note 5)										
	68	Hazardous Area Cert.	NACE Cert. Req'd - Yes or No	None				No					
	69	Filter Regulator		Yes								1	
	70	Manufacturer	Model No.	SMC				AC40B-N04DE				1	
	71	Material	Size	Aluminium				1/2 inch NPT				1	
	72	Incoming Air Isolation Valve		Yes									
	73	Manufacturer	Model No.	SMC				VHS4500-N04-X116				1	
NOTES	74	Connection Size/Type		1/2 inch NPT				Suit SS tube				1	
	75	Material	Lockable	Epoxy coated aluminium die cast				Yes				1	
	76	Speed Control		Yes								1	
	77	Manufacturer	Model No.	SMC				AS 4000-N04				1	
	78	Type	Qty	Speed controller				2				1	
	79	Size	Material	1/2 inch NPT				Epoxy coated aluminium die cast				1	
	80	Mounting / Enclosure		Panel mounted								1	
	81	Hazardous Area Cert.	NACE Cert. Req'd - Yes or No	None				No				1	
	82	Deflection Cones										1	
	83	Material	Gasket	Number Required	28% chrome iron				3mm rubber full face insertion				1 - located in the upstream side ##
84	Valve Gasket	3mm rubber full face insertion											
85	Note 1 - To be read in conjunction with Specification H333588-0000-60-123-0011 (Specification for Automated Valves)												
86	Note 2 - Valve to be lockable												
87	Note 3 - Testing requirements to MSS SP-81												
88	Note 4 - Markings shall be in accordance with MSS SP-25. Equipment tag number shall be stamped on the nameplate for identification.												
89	Note 5 - Installation contractor to supply enclosures for solenoid & limit switch terminations												
90	# Supplier to complete	# # Supplier to confirm											