
		<b>WEST CLIFF COAL PREPARATION PLANT RAW COAL CIRCUIT AND RELIABILITY IMPROVEMENT PROJECT</b>								<b>Equipment tag:</b>  <b>FV 4-4C.3</b>		
		ABN 91 780 788 210										
		<b>Valve Datasheet</b> <b>ACTUATED ON/OFF KNIFE GATE VALVE DN350</b>										
FILE NAME : 333588-0000-60-107-0087 Date Printed: 06-Oct-10		Electronic version current Uncontrolled copy valid only at time of printing				Current Revision no.: 1 Number of pages: 1						
Usage: CONTROL Project No.: 333588 Plant Area: 0600 Equipment Description: ACTUATED VALVE		A 31/03/2010 Internal Review TD NM JW NM KW MR 0 09/07/10 Approved for Enquiry TD NM JW JH KW 1 11/10/2010 Approved for Use TD DW MR JH KW										
		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 4-4C.3							1	
	2	P&ID Number		WCP-10047								
	3	Service Description		Actuated Knife Gate valve								
	4	Operated Type		Pneumatic Actuated								
	5	Valve Type		VK3								
	6	Valve Code		VK3-43-350								
	7	Area		0600								
	8	Hazardous Area Classification		None								
	9	Installation Detail		#							1	
EQUIPMENT / LINE DATA	10	Equipment Number		404-V1624								
	11	Line Number		350-SL-4.04B-XS								
	12	Line Size and Schedule		DN350		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		22%						
	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		45						
	23	Gas Flow		Am³/h		N/A						
	24	Inlet Pressure		kPag		30		0		30		
	25	Outlet Pressure		kPag		N/A						
	26	Pressure Drop		kPa		N/A						
	27	Inlet Temperature		°C		20		10		35		
	28	Inlet Specific Gravity				1.1						
	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		30						
33	Inlet Vapour Pressure		kPa (estimated)		N/A							
CALCULATED RESULTS	34	Flow Coefficient (CV)		N/A								
	35	Travel		N/A								
VALVE BODY	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 350		85 mm # # (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		93 kg # #							1	
	47	Plug / Ball / Disc Material		Stainless Steel 316								
	48	Break Torque (Nm)	Leakage	#		Tight Shutoff						
	49	Estimated Sound Pressure Level (@ 1m)		N/A								
	50	NACE Cert. Req'd - Yes or No		No								
VALVE ACTUATOR	51	Manufacturer	Model No.	Keystone		F738 Type P8					1	
	52	Type	Action	Double Acting Cylinder		Air to open and close						
	53	Spring Size	End Cap Material	N/A		Anodised aluminum						
	54	Force / Torque	Mass	#		85 kg # #					1	
	55	Mounting Orientation	Accessories	Top - perpendicular to pipe		Supporting bracket					1	
SOLENOID	56	Manufacturer	Model No.	SMC		EV57-10-FG-S-3-A04T MO with sub-base VS7-3-A02T					1	
	57	Type	Qty	5/2 way		1 solenoid						
	58	Coil Voltage	Power	24VDC								
	59	Electrical connection	Enclosure	M20 x 1.5		Anodized Aluminum IP65 (Note 5)					1	
	60	Exhaust port		with SMC Series ANA1-N04 muffler #								
	61	Manual override		Required without the use of a tool to operate								
	62	Connection type	Connection and Material	G 1/4		304 S/S						
	63	Hazardous Area Certification		None								
LIMIT SWITCHES	64	Manufacturer	Model No.	Keystone		Proximity Switches					1	
	65	Type	Qty	Proximity		2						
	66	Contact type/rating	Electrical connection	PNP		24VDC		10m flying leads				1
	67	Mounting / Enclosure		Proximity switches to be mounted on actuator assembly (Note 5)							1	
	68	Hazardous Area Cert.	NACE Cert. Req'd - Yes or No	None		No						
ACCESSORIES	69	Filter Regulator		Yes							1	
	70	Manufacturer	Model No.	SMC		AC40B-N04DE					1	
	71	Material	Size	Epoxy coated aluminum		1/2 inch NPT					1	
	72	Incoming Air Isolation Valve		Yes							1	
	73	Manufacturer	Model No.	SMC		VHS4500-N04-NII-X116					1	
	74	Connection Size/Type		1/2 inch NPT		Suit SS tube					1	
	75	Material	Lockable	Epoxy coated aluminum		Yes					1	
	76	Speed Control		Yes							1	
	77	Manufacturer	Model No.	SMC		AS 4000-N-04					1	
	78	Type	Qty	Speed controller		2					1	
	79	Size	Material	1/2 inch NPT		Epoxy coated aluminum					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 # #		1	
84	Valve Gasket		3mm rubber full face insertion							1		
NOTES	85	Note 1 - To be read in conjunction with Specification H333588-0000-60-123-0011 (Specification for Automated Valves)									1	
	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.									1	
	89	Note 5 - Installation contractor to supply enclosures for solenoid & limit switch terminations									1	
	90	# Supplier to complete      ## Supplier to confirm									1	