

# CONTROL VALVE SPECIFICATION SHEET

CV Inquiry: **DMS/060909/PM1**  
CV Job: **WH/00071**  
CV Job Ref: **CW32703**  
CV Serial#: **07CW32703/01-02**  
Item: **04**  
Quantity: **2**

## SERVICE CONDITIONS

	FLOW t/hr	P1 bar.a	P2 bar.a	Temp deg C	Cv	Cv (%)	Travel (%)	Valve Outlet Vel. ft/sec	Noise (dBA)	Trim Exit Vel. m/sec
COND 1	305.0	189.5	179.0	137.0	115.5	84%	81%	17.9	<75	14.93
COND 2	94.0	28.1	10.0	30.0	26.2	19%	22%	5.1	<75	19.60
COND 3										
COND 4										
COND 5										
SHUTOFF		333	1.01		Allowable Leakage:			Predicted noise level with Insulation (IEC 60534-8-3)		Insulation
DESIGN		333		195	ANSI FCI 70-2 Class V					0.0 Inch

Style: <b>SD-Severe Duty, Globe</b>	Bonnet Type: <b>Pressure Sealed</b>
Size: <b>6 Inch</b>	Packing Material: <b>Teflon</b>
ASME Class: <b>2500 Standard</b>	Packing Hardware: <b>Stainless Steel</b>
Body Inlet: <b>Butt Weld, Sch 160 Per ANSI B16.25, Fig. 2b</b>	Options: <b>Single Packed</b>
Body Outlet: <b>Butt Weld, Sch 160 Per ANSI B16.25, Fig. 2b</b>	Service: <b>Continuous Modulation</b>
Material: <b>ASTM A217 WC6</b>	
Inlet Pipe: <b>193.7mm OD x 16mm WT</b>	Inlet Reducer: <b>6" Sch 160 x 193.7mm OD x 16mm WT, Length: 6.00 In., 15NiCuMoNb5</b>
Outlet Pipe: <b>193.7mm OD x 16mm WT</b>	Outlet Expander: <b>6" Sch 160 x 193.7mm OD x 16mm WT, Length: 6.00 In., 15NiCuMoNb5</b>

Size: <b>4 Inch with 4 Turns</b>	Seat Type: <b>Metal</b>
Style: <b>RAVEN (Balanced with Ucup seal)</b>	Trim Material: <b>400/70 SST &amp; 300SST Disc Stack</b>
Flow Direction: <b>OVER THE WEB</b>	Max. Cv Available: <b>136.8 @Max Travel of 3.5" (+/-1/8)</b>
Stem Diameter: <b>1.00 Inch</b>	Min. Controllable Cv of Trim: <b>0.66</b>
Characteristic: <b>RAVEN</b>	

Actuator Model: <b>Pneumatic Piston</b>	Actuator Mounting Style: <b>Studded</b>
<b>16" Diameter</b>	Actuator Spring: <b>TBA</b>
Action: <b>Direct (Air Fail Open)</b>	Spring Rate: <b>TBA</b> <b>lbf/in</b>
Handwheel: <b>None</b>	Max Stem Thrust Required to Close: <b>7901</b> <b>lbf</b>
Frame Material: <b>Ductile Iron</b>	Max Stem Thrust Required to Open: <b>3426</b> <b>lbf</b>
Air Pressure Available: <b>4.0</b> <b>bar.g</b>	Bench Set: <b>N/A</b> <b>psi.g</b>
Air Pressure Required: <b>3.5</b> <b>bar.g</b>	

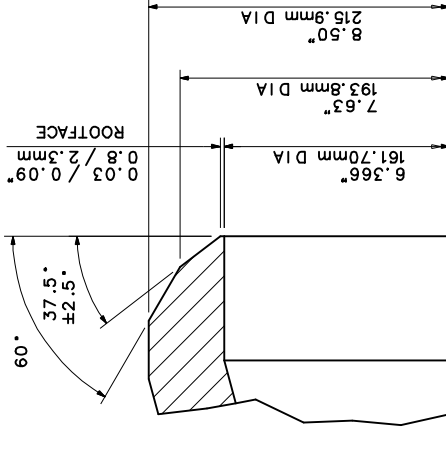
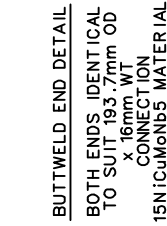
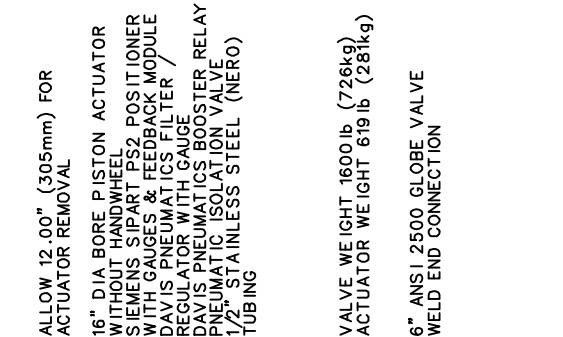
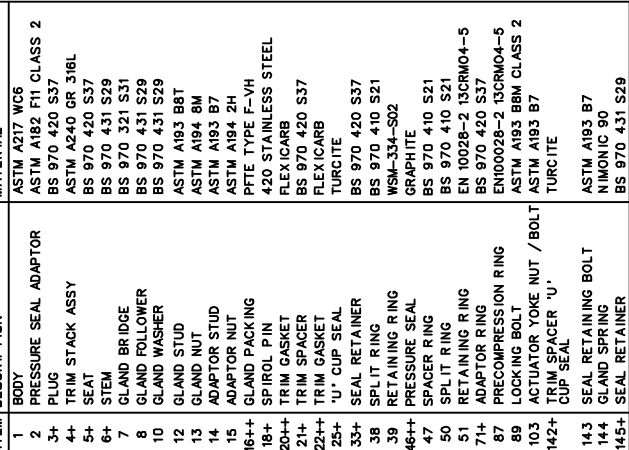
Positioner: <b>Siemens SIPART PS2, Single Acting</b>	Airlock: <b>None</b>	
Positioner Input Range: <b>4-20 mA</b>	Filter/Regulator: <b>Davis Pneumatics, w/Gauge</b>	Qty: <b>1</b>
Position FeedBack Module (4-20mA): <b>YES</b>	Solenoid Valve: <b>None</b>	
Alarm Module: <b>NO</b>	Booster Relay: <b>As Required for Stroke Speed</b>	
HART Module: <b>NO</b>	Additional Acc'y: <b>Pneumatic Isolation Valve</b>	Qty: <b>1</b>
Piping: <b>1/2" Stainless Steel Tubing (NERO)</b>		
Limit Switches: <b>None</b>		

Trim Exit Velocities are Shown

	07	CMN	Shut off and Design pressure changed	Nov-26-2007
	06	CMN	Shut Off was Class IV	Nov-14-2007
	05	ADA	REVIEWED THROUGH ENGINEERING	Feb-28-2007
	04	MW	Inlet & Outlet pipe size revised	Feb-05-2007
	03	IJW	Issued For Contract Use	Jan-24-2007
	02	MW	Revised Per L2 Meeting	Nov-20-2006
	01	MW	Revised to RAVEN Trim	Oct-25-2006
	00	MW	Original Data Sheet	Sep-15-2006
	<b>Rev</b>	<b>Initials</b>	<b>Description</b>	<b>Date</b>

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Program Rev Level:      **UK-1-2 (WS Version)**



2	30-03-07	DJ	CWN	CWN			
1	31-03-07	JRL	CWN	CWN			
0	29-04-07	JRL	JRL	CWN			
0	29-04-07	JRL	CWN	CWN	FOR REVIEW	FOR REVIEW	FR
	Revision Date	Created By	Checked By	Approved By	Description		Status

Maritza East | Power Station



<p>Spaced for stamp of Municipality of Gaildorf</p> <p>Stamps on stamp in <b>Original Position</b></p>	<p>Spaced for stamp of <b>Authorized Signature Designer</b></p> <p>Stamps on stamp in <b>Original Position</b></p>	<p>Spaced for stamp of <b>Authorized Signature Designer</b></p> <p>Stamps on stamp in <b>Original Position</b></p>
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CUSTOMER NAME	ISS	MODIFICATION
ALSTOM POWER CENTRALES - BELFORT	01	PER CUSTOMER COMMENTS
WAS117 PIZ 730.7	02	PER CUSTOMER COMMENTS
CUSTOMER P0 No		
CUSTOMER TAG No		
CUSTOMER TAG No		
VENDOR NAME		
COPES-VULCAN, WINSFORD		
VENDOR CONTRACT No		
WINSF0071		
VENDOR JOB No		
CW32703		
ITEM DESCRIPTION		
DRUM LEVEL LOW		
LOAD CONTROL VALVE		

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<p>GENERAL ARRANGEMENT DRAWING OF 6" ANSI 2500 GLOBE VALVE WITH RAVEN TRIM &amp; 16" PNEUMATIC PISTON ACTUATOR</p>	

RECOMMENDED SPARES LIST

CUSTOMER NAME	ALSTOM POWER CENTRALES - BELFORT	VENDOR CONTRACT N°	WH/00071	DATE	21-May-07
PROJECT NAME	MARITZA EAST 1 BULGARIA	DOCUMENT N°	RSL/CW32703/01 & 02	AFTERMARKET REF	DGE/070206/IRSL8
CUSTOMER PO N°	745117 P12 73077	REV STATUS	0	CONTACT	D.G. EDWARDS

Qty Of Valves	2 OFF	Description	SD Globe 6" ANSI 2500
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Tag N°	Serial N°	Qty Installed Per Valve	CD Drawing N°	Drawing Item	Description	Part N°	Notes	Recommended 2 Yrs Operation
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01/02LAB40AA012	CW32703/01 & 02	1	CD32703	3,4,5,18,20,21,25,33,39	Assy Trim, Raven 6" 4T 38P Consisting Of #	C99106SAQA		1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	3+	Plug #	C33774-XMC		1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	4+	Trim Slack #	C33773-AQA		1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	5+	Seat#	SRG30410403		1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	18+	Spirol Pin #	U20-120		1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	20++	Trim Gasket #	S269034	1	4
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	21+	Trim Spacer #	C33775-XMC		1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	22++	Trim Gasket #	S266166	1	4
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	25++	U Cup Seal #	VAS040101		4
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	33+	Seal Retainer #	RET3040101	1	1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	39++	Retaining Ring #	S342267		4
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	50	Split Ring #	C32512-XMA		
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	51	Retaining Ring #	C32514-ZHE		
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	71	Seat Adaptor Ring #	ADR3060402		
01/02LAB40AA012	CW32703/01 & 02	12	CD32703	89	Split Ring Capscrew #	C32517-ZHR	1	12
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	107+	Locking Bar #	C32570-AQA	1	1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	142++	U Cup Seal #	C33778-BPP	1	4
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	6+	Stem	STM320326502		1
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	16++	Gland Packing	C15686-BPP	1	4
01/02LAB40AA012	CW32703/01 & 02	1	CD32703	46++	Pressure Seal	C30881ABPP	1	4
01/02LAB40AA012	CW32703/01 & 02	1	CD32703		Actuator Repair Kit	AKX25-257		1
				See Manual				

NOTES

COMMENTS

Please note that items marked with a [ 1 ], must be changed during an inspection or maintenance overhaul it should be ensured that these items are available before commencing the inspection.  
Do Not Re-Use