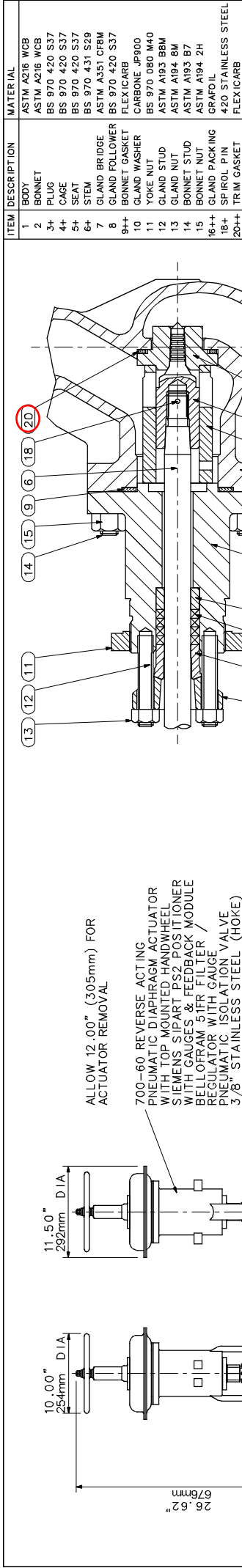


COPES-VULCAN, SPX Valves & Controls Road Two, Industrial Estate, Winsford, Cheshire, UK Phone: +44(0) 1606 552041 Fax: +44(0) 1606 558275					CONTROL VALVE SPECIFICATION SHEET					
Customer Name: ALSTOM POWER CENTRALES - BELFORT Customer Inquiry: EMAIL Customer PO: 745117 P12 73077 Ultimate User: MARITZA EAST 1 BULGARIA Tag: 09 LBG31 AA001 Application: CCCT PRESSURE CONTROL VALVE					CV Inquiry: DMS/060909/PM1 CV Job: WH/00071 CV Job Ref: CW32719 CV Serial #: 07CW32719/01 Item: 20 Quantity: 1					
Description: 1.5" (40 mm), CL300, WCB , BW, GS-700-60 RA										
FLUID: Steam		SERVICE CONDITIONS								
	FLOW (Mton/hr)	P1 (bar a)	P2 (bar a)	Temp. (deg C)	Cv	CV (%)	Travel (%)	Valve Outlet Vel. (ft/min)	Noise * (dBA)	Remarks
COND 1	0.234	15	1.2	307	1.65	75%	72%	24261	<75	
COND 2										
COND 3										
COND 4										
COND 5										
SHUTOFF		21	1	325	Allowable Leakage:			* Estimated Noise Level with 0" of Insulation		
DESIGN		21		325	Class IV					
BODY AND BONNET										
Style: GS - General Service, Globe Size: 1.5 inch ASME Class: 300 Standard Body Inlet: Butt Weld, Sch 80 per ANSI B16.25, Fig. 2b Body Outlet: Butt Weld, Sch 80 per ANSI B16.25, Fig. 2b Material: A-216 WCB Inlet Pipe: 1.5 In. (40 mm), Sch 80 Outlet Pipe: 1.5 In. (40 mm), Sch 80					Bonnet Type: Bolted Packing Material: Grafoil Packing Hardware: Stainless Steel Packing Nut Torque: 4 ft-lbs. Options: Single Packed					
TRIM										
Size: #6 with 4 Ports Style: No. CASCADE (UnBalanced) Flow Direction: UNDER THE WEB Stem Diameter: .75 in. Characteristic: CASCADE, MEDIUM					Seat Type: METAL Trim Material: 400/70 SST Max. Cv Available: 2.2 @Max. Trim Travel of 1" (±1/8) Min. Controllable Cv of Trim: 0.01					
ACTUATOR										
Style: 700 DIAPHRAGM Size: 60 (Square Inch) Action: Spring Closing (Reverse) Handwheel: Top Mounted Frame Material: Ductile Iron Air Pressure Available: 4.0 bar g (58 psig) Air Pressure Required: 1.7 bar g (25 psig)					Actuator Mounting Style: Screwed Ring Actuator Spring: 357563 Spring Rate: 720 (lbs/inch) Max. Stem Thrust Required to Close: 286 (lbs) Max. Stem Thrust Required to Open: 136 (lbs) Spring Precompression (Diaphragm Air Pressure): 6 (psig) Pressure @ Full Valve Travel (With No Internal Valve Pres.): 18 (psig)					
ACCESSORIES										
Positioner: Siemens SIPART PS2, Single Acting Positioner Input Range: 4-20 mA Position FeedBack Module (4-20ma) : YES Alarm Module : NO HART Module : NO					Airlock: None Filter/Regulator: Bellofram 51FR w/Gauge Qty: 1 Solenoid Valve: None Booster Relay: None Additional Acc'y: Pneumatic Isolation Valve Qty: 1					
Piping: 3/8" Stainless Steel Tubing (Hoke) Limit Switches: None										
COMMENTS										
Stroking speed Opening or Closing shall be less than 20 Seconds Stream Blow OUT trim kit to be supplied with valve										
Model = GS1.5 Body Option: BDY515110401 Bonnet Option: BNT515170401 Trim Option: TRM515940610403 Hardware Pack Option: HDP5114112 Actuator Option: ACT511020421 Stem Option: STM50215041032 Gasket Option: GSK5159902061 Accessory Kit Option: AC7A***000*0000 I.D. Plate: OPT187019					7	CMN	CVW 10181	Mar-19-2008		
					6	CMN	Shut off & Design Temps were 320	Oct-31-2007		
					5	CMR	Serial number was 07CW32719/01-02	Oct-10-2007		
					4	CMN	Revised per customer comments	Aug-31-2007		
					3	IJW	Revised For Contract Use	Jan-25-2007		
					2	MW	Revised per Clarification	Nov-21-2006		
					1	MW	Stroking speed added	Oct-26-2006		
					0	MW	Original Sizing	Sep-15-2006		
					Rev	Initials	Description	Date		
Program Rev Level: 9.2.11 S File Name: O:\...Technical\Contract Docs\Data Sheets\DS-CW32719.VS3 (9.2.11)										



ITEM	DESCRIPTION	MATERIAL
1	BODY	ASTM A216 WCB
2	BONNET	ASTM A216 WCB
3+	PLUG	BS 970 420 S37
4+	CAGE	BS 970 420 S37
5+	SEAT	BS 970 420 S37
6+	STEM	BS 970 431 S29
7	GLAND BRIDGE	ASTM A351 CFBM
8	GLAND FOLLOWER	BS 970 420 S37
9++	BONNET GASKET	FLEXICARB
10	GLAND WASHER	CARBONE JP900
11	Yoke Nut	BS 970 080 M40
12	GLAND STUD	ASTM A193 B8M
13	GLAND NUT	ASTM A194 B8M
14	BONNET STUD	ASTM A193 B7
15	BONNET NUT	ASTM A194 2H
16++	GLAND PACKING	GRAFOIL
18+	SPIROL P IN	420 STAINLESS STEEL
20++	TRIM GASKET	FLEXICARB

RECOMMENDED SPARES
+ OPERATIONAL SPARES
++ COMMISSIONING SPARES



BUTTWELD DETAIL
BOTH ENDS IDENTICAL
TO SUIT 1.5" SCH 80 PIPE



INLET
ORIENTATION



GENERAL ARRANGEMENT DRAWING OF 1.5" ANSI 300 GLOBE VALVE
WITH CASCADE TRIM & CV700-60R REVERSE ACTING PNEUMATIC
DIAPHRAGM ACTUATOR WITH TOP MOUNTED HANDWHEEL

THIS DRAWING IS THE PROPERTY OF COPES-VULCAN
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DO NOT SCALE
IF IN DOUBT - ASK!

SUPPLY - 0.250" NPT FEMALE
SIGNAL - ELECTRICAL

CONNECTIONS

SINGLE ACTING
E/P
POSITIONER

ISOLATION VALVE

REVERSE ACTING
DIAPHRAGM ACTUATOR
(AIR FAILURE TO CLOSE)

700-60 REVERSE ACTING
PNEUMATIC DIAPHRAGM ACTUATOR
WITH TOP MOUNTED HANDWHEEL
SIEMENS SIPART PS2 POSITIONER
WITH GAUGES & FEEDBACK MODULE
BELLOFRAM 51FR FILTER /
REGULATOR WITH GAUGE
PNEUMATIC ISOLATION VALVE
3/8" STAINLESS STEEL (HOKE)
TUBING

VALVE WEIGHT 35 lb (16kg)
ACTUATOR WEIGHT 91 lb (41kg)

1.50" ANSI 300 GLOBE VALVE
WELD END CONNECTION

ALLOW 12.00" (305mm) FOR
ACTUATOR REMOVAL

11.50" DIA
292mm

10.00" DIA
254mm

5.19" DIA
132mm

9.25" DIA
235mm

1.94" DIA
49mm

7.03" DIA
179mm

26.62" DIA
676mm

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

FLOW

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°	ESL/CW32719/01	AFTERMARKET REF	DGE/070206/IRSL8
CUSTOMER PO N°	745117 P12 73077	REV STATUS	0	CONTACT	D.G. EDWARDS

Qty Of Valves	1 OFF	Description	GS Globe 1.5" ANSI 300
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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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09LBG31AA001	CW32719/01	1	CD32719	3,4,5	Assy Trim, 1.5" U 6 CAS NIT Consisting of #	M515940610403		1
09LBG31AA001	CW32719/01	1	CD32719	3+	Plug #	PLG394020803		1
09LBG31AA001	CW32719/01	1	CD32719	4+	Cage #	CAG30105060403		1
09LBG31AA001	CW32719/01	1	CD32719	5+	Seat#	SRG31559403		1
09LBG31AA001	CW32719/01	1	CD32719	6+	Stem	STM310213002		1
09LBG31AA001	CW32719/01	1	CD32719	9++	Bonnet Gasket	S286650	1	2
09LBG31AA001	CW32719/01	1	CD32719	10++	Gland Washer	S373407		2
09LBG31AA001	CW32719/01	1	CD32719	16++	Gland Packing	S368489	1	2
09LBG31AA001	CW32719/01	1	CD32719	20++	Trim Gasket Consisting Of ##	GSK6159902061	1	2
09LBG31AA001	CW32719/01	1	CD32719	20++	Trim Gasket #	S286712	1	2
09LBG31AA001	CW32719/01	1	See Manual	14,32,33,35,36	Actuator Spares Kit 60R Consisting of ###	C80132-AQA		1
09LBG31AA001	CW32719/01	1	See Manual	14+	Diaphragm #	S185988BPP		1
09LBG31AA001	CW32719/01	1	See Manual	32+	Gasket #	S356998		1
09LBG31AA001	CW32719/01	1	See Manual	33+	U Cup Seal #	S357800		1
09LBG31AA001	CW32719/01	1	See Manual	36+	O Ring (Inner) #	S357801		1
09LBG31AA001	CW32719/01	1	See Manual	36+	O Ring (Outer) #	S357802		1
09LBG31AA001	CW32719/01	1	See Manual	30+	Bushing	S356093		1

NOTES

1

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