

Road Two, Industrial Estate, Winsford, Cheshire. United Kingdom  
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Customer Name: **ALSTOM POWER CENTRALES - BELFORT**  
Customer Inquiry: **EMAIL**  
Customer PO: **745117 P12 73077**  
Ultimate User: **MARITZA EAST 1 BULGARIA**  
Tag: **01/02 LBC20 AA011**  
Application: **START-UP CONTROL VALVE**

CV Inquiry: **DMS/060909/PM1**  
CV Job: **WH/00071**  
CV Job Ref: **CW32709**  
CV Serial#: **07CW32709/01-02**  
Item: **10**  
Quantity: **2**

Description : 8 Inch, Class 600 STD, BW, A217 WC9, GS, CV700 160-5R

FLUID: **Steam**

## SERVICE CONDITIONS

	FLOW t/hr	P1 bar.a	P2 bar.a	Temp deg C	Cv	Cv (%)	Travel (%)	Valve Outlet Vel. ft/min	Noise (dBA)	Velocity Head bar.a
COND 1	31.8	16.54	15.0	299.5	396.2	87%	83%	9373	<70	0.30
COND 2	64.2	39.2	15.0	334.0	164.06	36%	37%	19420	76	3.73
COND 3										
COND 4										
COND 5										
SHUTOFF		54	1.01		Allowable Leakage:			Predicted noise level with Insulation (IEC 60534-8-3)		Insulation 3.0 Inch
DESIGN		54		500	ANSI FCI 70-2	Class IV				

## BODY AND BONNET

Style: **GS - General Service, Globe**  
 Size: **8 Inch**  
 ASME Class: **600 Standard**  
 Body Inlet: **Butt Weld, Sch 40 Per ANSI B16.25, Fig. 2b**  
 Body Outlet: **Butt Weld, Sch 40 Per ANSI B16.25, Fig. 2b**  
 Material: **ASTM A217 WC9**  
 Inlet Pipe: **8" Sch 8mm WT**  
 Outlet Pipe: **8" Sch 8mm WT**

Bonnet Type: **Bolted w/Extension & Bonnet Spacer**  
Packing Material: **Grafoil**  
Packing Hardware: **Stainless Steel**  
Options: **Single Packed**  
Service: **Continuous Modulation**

**TRIM**

Size: **8 Inch with 4,2 Turns**  
 Style: **RAVEN (Balanced with Piston rings)**  
 Flow Direction: **UNDER THE WEB**  
 Stem Diameter: **1.00 Inch**  
 Characteristic: **RAVEN**

Seat Type: **Metal**  
Trim Material: **400/70 SST & 300SST Disc Stack**  
Max. Cv Available: **457.5 @Max Travel of 4.5" (+/-1/8)**  
Min. Controllable Cv of Trim: **12.96**

## ACTUATOR

Actuator Model: **CV700 160-5R**

Actuator Mounting Style: **4 x Studded**

Action: **Reverse**      (Air Fail Closed)

Actuator Spring: **357580**

Handwheel: **None**

Spring Rate: 76

Frame Material: **Ductile Iron**

Max Stem Thrust Required to Close: 1422

Air Pressure Available: **4.0** bar.g

Max Stem Thrust Required to Open: **730**

Air Pressure Required: **2.9 bar.g**

Bench Set: 11 - 32

**lbf/in****lbf****lbf**

**psi.g**

## 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: **Norgren B64G-4GK-AD3-RMN**

Qty: 1

Solenoid Valve: **ASCO (110V DC)**

Qty: 1

### De-Energise to Vent Actuator

Booster Relay: **RK 3000**

Qty: 1

Additional Acc'y: **Pneumatic Isolation Valve**

Piping: 1/2" Stainless Steel Tubing (Hoke)

Limit Switches: **None**

## COMMENTS

Solenoid Tag Number 01/02 LBC20AA011 A  
 Stroking Speed Opening or Closing shall be less than 10 Seconds

06	CMN	Cond 2 flow changed. Tag No corrected	Oct-31-2007
05	CMN	Per Customer Comments	Aug-31-2007
04	JRL	Tag Number Change	Aug-23-2007
03	IJW	Released For Contract Use	Jan-24-2007
02	MW	Revised For L2 Meeting	Nov-20-2006
01	MW	Revised For RAVEN Trim	Oct-25-2006
00	MW	Original Data Sheet	Aug-31-2006
<b>Rev</b>	<b>Initials</b>	<b>Description</b>	<b>Date</b>

Program Rev Level:	<b>UK-1-2 (WS Version)</b>
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SPX Process Equipment

LISTEN<sub>00000</sub>INNOVATE<sub>00000</sub>DELIVER

COPES-VULCAN®

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°	RSUCW32709/01 & 02	AFTERMARKET REF	DGE070206/RSLS
CUSTOMER PO N°	745117 P12 73077	REV STATUS	0	CONTACT	D.G.EDWARDS

Qty Of Valves	2 OFF	Description	GS Globe 8" ANSI 600
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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
0102LBC20AA011	CW32709/01 & 02	1	CD32709	3,4,5,18,20,21,22,40	Assy Trim, Raven 8" 4, 2T 64P Consisting Of #	C99127AAQA		1
0102LBC20AA011	CW32709/01 & 02	1	CD32709	3+	Plug #	C33752-XMC		1
0102LBC20AA011	CW32709/01 & 02	1	CD32709	4+	Trim Stack #	C33829-AQA		1
0102LBC20AA011	CW32709/01 & 02	1	CD32709	5+	Seat #	C32826-XMC		1
0102LBC20AA011	CW32709/01 & 02	1	CD32709	18+	Spirol Pin #	U20-122		1
0102LBC20AA011	CW32709/01 & 02	1	CD32709	20++	Trim Gasket #	S269587	1	2
0102LBC20AA011	CW32709/01 & 02	1	CD32709	21+	Trim Spacer #	C33836-XMC		1
0102LBC20AA011	CW32709/01 & 02	1	CD32709	22+	Trim Gasket #	S353698	1	2
0102LBC20AA011	CW32709/01 & 02	2	CD32709	40++	Piston Ring #	C30140-BPP	1	4
0102LBC20AA011	CW32709/01 & 02	1	CD32709	6+	Stem	STM320328001		1
0102LBC20AA011	CW32709/01 & 02	1	CD32709	9++	Bonnet Gasket	S197477	1	2
0102LBC20AA011	CW32709/01 & 02	1	CD32709	10+	Gland Washer	S373408		1
0102LBC20AA011	CW32709/01 & 02	1	See Manual	14,30,32,33,35,36	Actuator Spares Kit 160R-L 1" Consisting of ###	C80141-AQA		1
0102LBC20AA011	CW32709/01 & 02	1	See Manual	14+	Diaphragm # # #	S195964BPP		1
0102LBC20AA011	CW32709/01 & 02	1	See Manual	32++	Gasket # # #	S356999		1
0102LBC20AA011	CW32709/01 & 02	1	See Manual	33+	U Cup Seal # # #	S357800		1
0102LBC20AA011	CW32709/01 & 02	1	See Manual	35+	O Ring (Inner) # # #	S357801		1
0102LBC20AA011	CW32709/01 & 02	1	See Manual	36+	O Ring (Outer) # # #	S357802		1
0102LBC20AA011	CW32709/01 & 02	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