

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 AA021**
Application: **NORMAL CONTROL VALVE**

CV Inquiry: **DMS/060909/PM1**
CV Job: **WH/00071**
CV Job Ref: **CW32708**
CV Serial#: **07CW32708/01-02**
Item: **09**
Quantity: **2**

Description : 6 Inch, Class 600 STD, BW, A217 WC9, GS, CV700 160R

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	39.8	38.9	15.000	334.0	99.9	81%	83%	20726	87	3.87
COND 2	1.1	39.3	15.000	334.0	2.73	2%	8%	572	<70	3.96
COND 3										
COND 4										
COND 5										
SHUTOFF		54	1.01		Allowable Leakage:			Predicted noise level with Insulation (IEC 60534-8-3)		Insulation
DESIGN		54		500	ANSI FCI 70-2	Class IV				3.0 Inch

BODY AND BONNET

Style: **GS - General Service, Globe**
 Size: **6 Inch**
 ASME Class: **600 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: **ASTM A217 WC9**
 Inlet Pipe: **6" x 8mm WT**
 Outlet Pipe: **6" x 8mm WT**

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

TRIM

Size: **4 Inch with 4 Turns**
 Style: **RAVEN (Balanced with Piston rings)**
 Flow Direction: **UNDER THE WEB**
 Stem Diameter: **0.75 Inch**
 Characteristic: **RAVEN**

Seat Type: **Metal**
Trim Material: **400/70 SST & 300SST Disc Stack**
Max. Cv Available: **122.7 @Max Travel of 2.75" (+/-1/8)**
Min. Controllable Cv of Trim: **3.00**

ACTUATOR

Actuator Model: **CV700 160R**

Actuator Mounting Style: **4 x Studded**

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

Actuator Spring: 357575

Handwheel: **None**

Spring Rate: 64

Frame Material: **Ductile Iron**

Max Stem Thrust Required to Close: **883**

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

Max Stem Thrust Required to Open: **470**

Air Pressure Required: **1.8 bar.g**

Bench Set: 6 - 17

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

psi.g

ACCESSORIES

Positioner: **Siemens SIPART PS2, Single Acting**

Airlock: None

Positioner Input Range: 4-20 mA

Filter/Regulator: **Norgren B64G-4GK-AD3-RMN**Position FeedBack Module (4-20mA): **YES**

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

Alarm Module: **NO**

De-Energise to Vent Actuator

HART Module: NO

Booster Relay: **RK 3000**

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

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

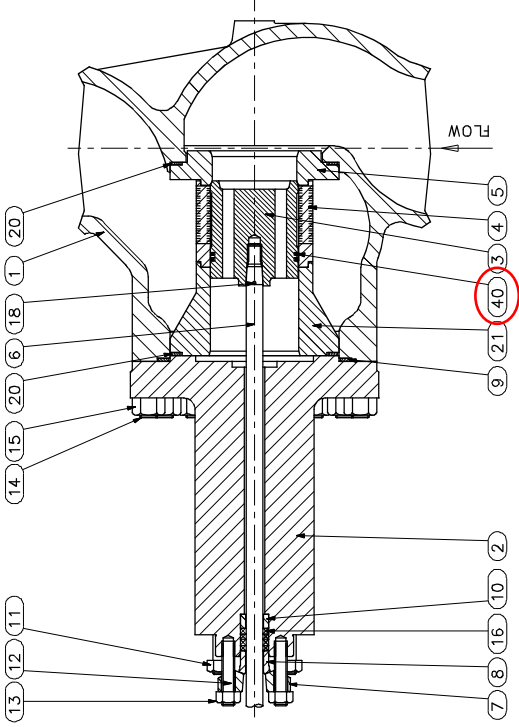
Limit Switches: **None**

COMMENTS

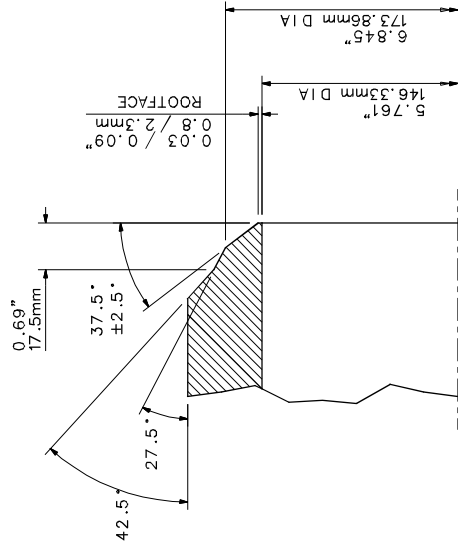
Solenoid Tag Number 01/02 LBC20AA021 A
 Stroking Speed Opening or Closing shall be less than 10 Seconds

06	CMN	Tag Number Change	Oct-31-2007
05	JRL	Per customer comments	Aug-30-2007
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
Rev	Initials	Description	Date

Program Rev Level:	UK-1-2 (WS Version)
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BUTTWELD END DETAIL
BOTH ENDS IDENTICAL
TO SUIT 6" SCH 80
CONNECTION



RECOMMENDED SPARES

+ OPERATIONAL SPARES
++ COMMISSIONING SPARES

5	21-12-07	S J H	CWN	CWN	
4	20-12-07	C J H	CWN	CWN	
3	13-10-07	D J J	CWN	CWN	
2	18-10-07	J R L	CWN	CWN	
1	31-08-07	J R L	CWN	CWN	
0	19-04-07	J R L	CWN	CWN	FR
FOR REVIEW			Created by	Checked by	Description
Rev: 18-04-07			Approved by		Status

Maritza East | Power Station



Space for stamp of Municipality of Galatovo	Space for further stamps
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Space for stamp of Municipality of Galatona
Place to put the Galatona Postmark

Area for stamp of EQE Control OOD (ICS)

Space for stamp of authorized Bulgarian Designer

Main Contractor / **ALSTOM** / Power Generation A

	Partner of Main Contractor / Partner of Main Contractor
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[illegible]

 power Turbo Systems		Log of Logi Owner Customer reference	
Site Coordinates S10 Coordinates Doc Number S10 Coordinates in significance		Top section GENERAL ARRANGEMENT DRAWING OF 01 / 02 LEC20 AAO21	
Project Code Project Code Number M72 12 M		Project Date Project Date 31-07-07	
Customer Reference Customer Reference Code Customer Reference in significance of manufacturer		Project Date Project Date 31-07-07	

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COPES-VULCAN										JRL
17	BY	SCALE	17	JRL	17	DRAWN	17	CHECKED	CWVN	
17	DATE	USED ON	17	DD	17	CMVN	17	APPROVED		
17	CMVN	DATE	19-04-07							

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GENERAL ARRANGEMENT DRAWING OF 6" ANSI 600 GLOBE VALVE
WITH RAVEN TRIM & CV700-160R REVERSE ACTING PNEUMATIC
DIAPHRAGM ACTUATOR WITHOUT HANDWHEEL

DO NOT SCALE
IN DOUBT - AS:

DRAWING NO CD32708

708

COPES-VULCAN®

RECOMMENDED SPARES LIST

SPX Process Equipment

LISTEN...INNOVATE...DELIVER

CUSTOMER NAME	ALSTOM POWER CENTRALES - BELFORT	VENDOR CONTRACT N°	WH100071	DATE	21-May-07
PROJECT NAME	MARITZA EAST 1 BULGARIA	DOCUMENT N°	RSL/CW32708/01 & 02	AFTERMARKET REF	DGE/070206/RSL8
CUSTOMER PO N°	745117 P12 73077	REV STATUS	0	CONTACT	D.G.EDWARDS

Qty Of Valves	2 OFF	Description	GS Globe 6" 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
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	3,4,5,18,20,21,40	Assy Trim, Raven 6" 4T 40P Consisting Of #	C99106TAQA		1
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	3+	Plug #	PLG04020203		1
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	4+	Trim Stack #	C33846-AQA		1
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	5+	Seat #	C33844-XMC		1
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	18+	Spirol Pin #	U20-120		1
01/02LBC20AA021	CW32708/01 & 02	2	CD32708	20++	Trim Gasket #	S269031		8
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	21+	Trim Spacer #	C33847-XMC		
01/02LBC20AA021	CW32708/01 & 02	2	CD32708	40++	Piston Ring #	S347749	1	8
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	6+	Stem	STM310225001	1	1
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	9++	Bonnet Gasket	S282694	1	4
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	10++	Gland Washer	S373407	1	1
01/02LBC20AA021	CW32708/01 & 02	1	CD32708	16++	Gland Packing	S368489	1	4
01/02LBC20AA021	CW32708/01 & 02	1	See Manual	14,32,33,35,36	Actuator Spares Kit 160R 3/4" Consisting of ###	C80138-AQA	1	1
01/02LBC20AA021	CW32708/01 & 02	1	See Manual	14+	Diaphragm # # #	S185990BPP	1	1
01/02LBC20AA021	CW32708/01 & 02	1	See Manual	32++	Gasket # # #	S356999	1	1
01/02LBC20AA021	CW32708/01 & 02	1	See Manual	33+	U Cup Seal # #	S357800	1	1
01/02LBC20AA021	CW32708/01 & 02	1	See Manual	35+	O Ring (Inner) # # #	S357801	1	1
01/02LBC20AA021	CW32708/01 & 02	1	See Manual	36+	O Ring (Outer) # # #	S357802	1	1
01/02LBC20AA021	CW32708/01 & 02	1	See Manual	30+	Bushing	S356093	1	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