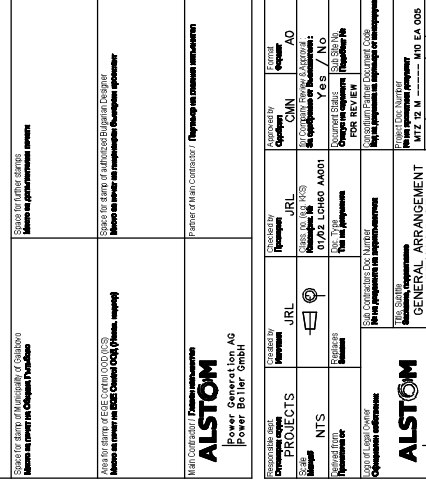
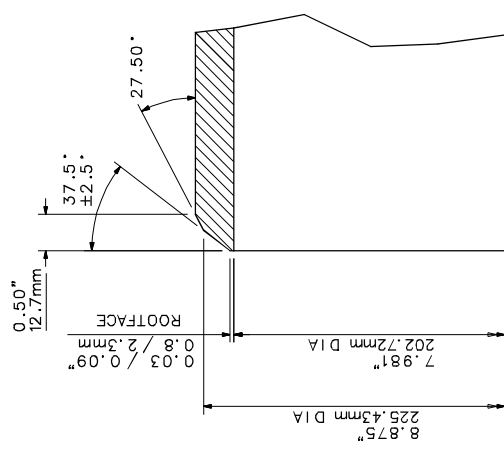
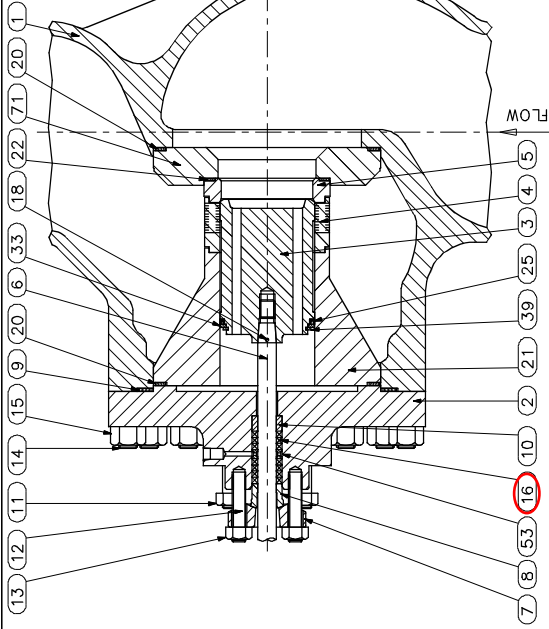


<b>COPES-VULCAN, SPX Process Equipment</b> Road Two, Industrial Estate, Winsford, Cheshire, United Kingdom Phone: +44 (0)1606 552041      Fax: +44 (0)1606 558275					<b>CONTROL VALVE SPECIFICATION SHEET</b>					
Customer Name: <b>ALSTOM POWER CENTRALES - BELFORT</b> Customer Inquiry: <b>EMAIL</b> Customer PO: <b>745117 P12 73077</b> Ultimate User: <b>MARITZA EAST 1 BULGARIA</b> Tag: <b>01/02 LCH60 AA001</b> Application: <b>HP6 EMERGENCY DRAIN</b>					CV Inquiry: <b>DMS/060909/PM1</b> CV Job: <b>WH/00071</b> CV Job Ref: <b>CW32704</b> CV Serial#: <b>07CW32704/01-02</b> Item: <b>05</b> Quantity: <b>2</b>					
<b>Description : 8 Inch, Class 300 STD, BW, A216 WCB, GS, CV700 100D</b>										
FLUID: <b>Water</b>		SERVICE CONDITIONS								
	FLOW t/hr	P1 bar.a	P2 bar.a	Temp deg C	Cv	Cv (%)	Travel (%)	Valve Inlet Vel. ft/sec	Noise (dBA)	Trim Exit Vel. m/sec
COND 1	114.0	20.70	0.283	193.20	47.8	86%	88%	3.7	---	20.82
COND 2	103.2	19.80	0.260	190.30	43.7	78%	82%	3.3	---	20.37
COND 3	19.2	6.70	0.053	158.20	20.3	36%	52%	0.6	---	11.88
COND 4										
COND 5										
SHUTOFF		26	1.01		Allowable Leakage:			Predicted noise level with		Insulation
DESIGN		26		230	ANSI FCI 70-2      Class V			Insulation (IEC 60534-8-3)		0.0 Inch
BODY AND BONNET										
Style: <b>GS - General Service, Globe</b> Size: <b>8 Inch</b> ASME Class: <b>300 Standard</b> Body Inlet: <b>Butt Weld, Sch 40 Per ANSI B16.25, Fig. 2b</b> Body Outlet: <b>Butt Weld, Sch 40 Per ANSI B16.25, Fig. 2b</b> Material: <b>ASTM A216 WCB</b> Inlet Pipe: <b>8" Sch 40</b> Outlet Pipe: <b>8" Sch 40</b>					Bonnet Type: <b>Bolted</b> Packing Material: <b>Grafoil</b> Packing Hardware: <b>Stainless Steel</b> Options: <b>Double Packed (w/leakoff tapped &amp; Plugged)</b> Service: <b>Rarely Modulating</b>					
TRIM										
Size: <b>4 Inch with 4 Turns</b> Style: <b>RAVEN (Balanced with Ucup seal)</b> Flow Direction: <b>UNDER THE WEB</b> Stem Diameter: <b>0.75 Inch</b> Characteristic: <b>RAVEN</b>					Seat Type: <b>Metal</b> Trim Material: <b>400/70 SST &amp; 300SST Disc Stack</b> Max. Cv Available: <b>55.7 @Max Travel of 1.5" (+/-1/8)</b> Min. Controllable Cv of Trim: <b>0.66</b>					
ACTUATOR										
Actuator Model: <b>CV700 100D</b>  Action: <b>Direct (Air Fail Open)</b> Handwheel: <b>None</b> Frame Material: <b>Ductile Iron</b> Air Pressure Available: <b>5.0 bar.g</b> Air Pressure Required: <b>2.4 bar.g</b>					Actuator Mounting Style: <b>4 x Studded</b> Actuator Spring: <b>357566</b> Spring Rate: <b>600 lbf/in</b> Max Stem Thrust Required to Close: <b>1595 lbf</b> Max Stem Thrust Required to Open: <b>240 lbf</b> Bench Set: <b>5 - 14 psi.g</b>					
ACCESSORIES										
Positioner: <b>Siemens SIPART PS2, Single Acting</b> Positioner Input Range: <b>4-20 mA</b> Position FeedBack Module (4-20mA): <b>YES</b> Alarm Module: <b>NO</b> HART Module: <b>NO</b>					Airlock: <b>None</b> Filter/Regulator: <b>Norgren B64G-4GK-AD3-RMN</b> Qty: 1 Solenoid Valve: <b>None</b> Booster Relay: <b>RK 3000</b> Qty: 1 Additional Acc'y: <b>Pneumatic Isolation Valve</b> Qty: 1					
Piping: <b>1/2" Stainless Steel Tubing (Hoke)</b> Limit Switches: <b>None</b>										
COMMENTS										
Valve Gland is Double Packed for Vacuum Service Stroking Speed Opening or Closing shall be less than 4 Seconds  Fluid is Heavily Flashing at Valve Outlet, which could cause potentially high vapor velocity in the valve outlet and downstream pipework					Condition	Remarks	Calc. Flash %	Est. Outlet Vapour Vel.		
					COND 1	FLASHING	23.03%	308316 ft/min		
					COND 2	FLASHING	22.77%	299679 ft/min		
					COND 3	FLASHING	21.72%	251288 ft/min		
				04	JRL	Per customer comments		Aug-30-2007		
				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: <b>UK-1-2 (WS Version)</b>										



SUPPLY - 0.250" NPT FEMALE  
SIGNAL - ELECTRICAL

[illegible]

COPES-VULCAN®

RECOMMENDED SPARES LIST

SPX Process Equipment

LISTEN...INNOVATE...DELIVER

CUSTOMER NAME	ALSTOM POWER CENTRALES - BELFORT	VENDOR CONTRACT N°	WH/00071	DATE	21-May-07
PROJECT NAME	MARITZA EAST 1 BULGARIA	DOCUMENT N°	RSL/CW32704/01 & 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	GS Globe 8" 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
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	3,4,5,18,20,21,22,25,33,35,71	Assy Trim, Raven 8" 4T 40P Consisting Of #	C89107WAAQ		1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	3+	Plug #	C32924-XMC		1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	4+	Trim Slack #	C33819-AQA		1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	5+	Seat#	SRG30410403		1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	18+	Spirol Pin #	U20-120		1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	20++	Trim Gasket #	S325432	1	4
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	21+	Trim Spacer #	C33820-XMC		1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	22++	Trim Gasket #	S289587	1	4
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	25+	U Cup Seal #	VAS040101	1	4
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	33+	Seal Retainer #	RET3040104	1	1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	39+	Retaining Ring #	S342287	1	4
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	71	Seat Adaptor Ring #	ADR3080402	1	4
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	6+	Stem	STM310214502		1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	9++	Bonnet Gasket	S197477	1	4
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	10+	Gland Washer	S373407		1
01/02LCH60AA001	CW32704/01 & 02	1	CD32704	16++	Gland Packing	S368491	1	4
01/02LCH60AA001	CW32704/01 & 02	1	See Manual	14	Actuator Spares Kit 10D Consisting of ###	C80134-AQA		1
01/02LCH60AA001	CW32704/01 & 02	1	See Manual	14+	Diaphragm # ##	S185989BPP		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