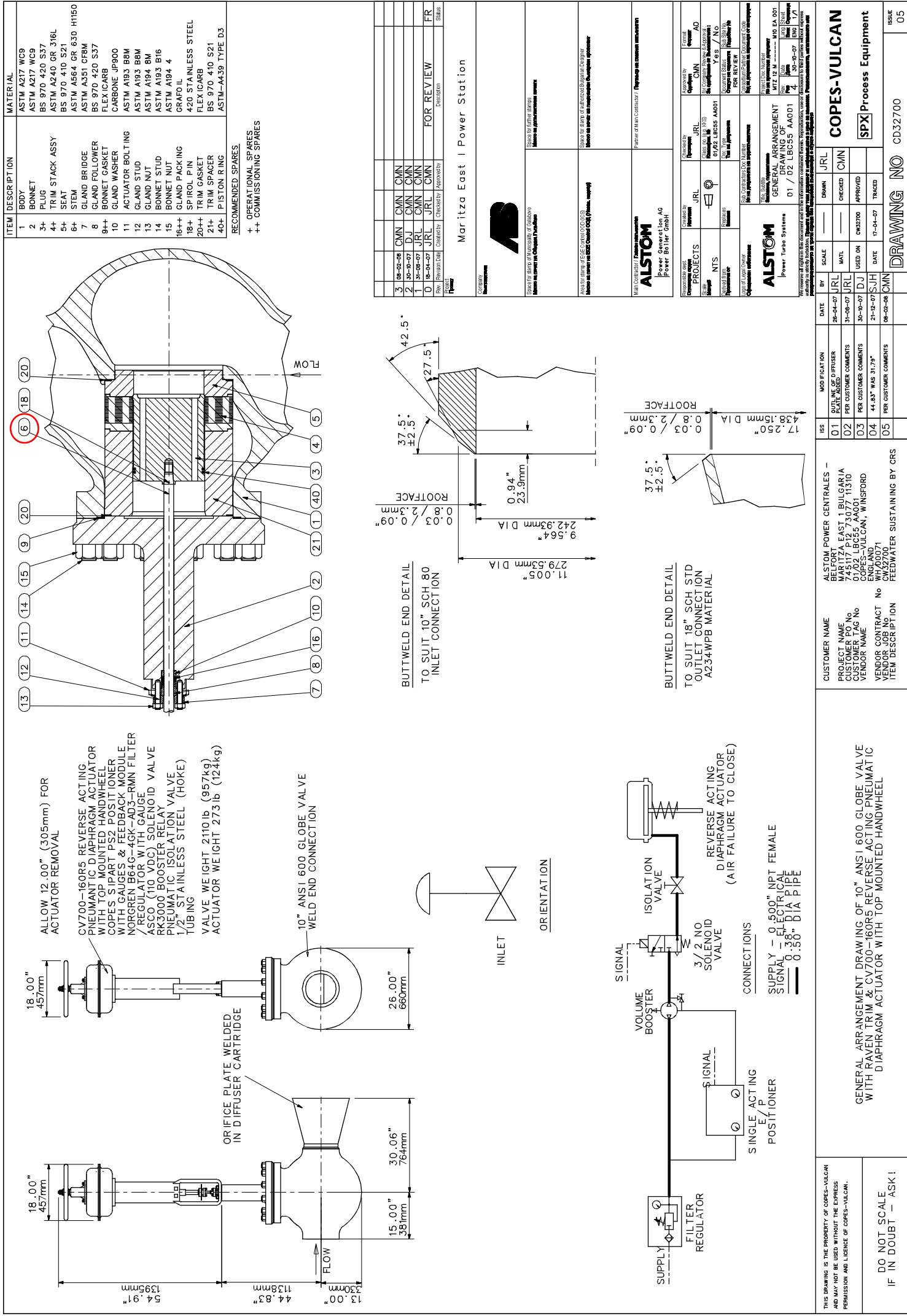


| | | | | | | | | | | |
|--|--------------|-------------|-------------|--------------------|--|-----------|---|-----------------------------|----------------|-------------------------|
| COPES-VULCAN, SPX Process Equipment Road Two, Industrial Estate, Winsford, Cheshire. United Kingdom Phone: +44 (0)1606 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: 01/02 LBC55 AA001 Application: FEEDWATER SUSTAINING BY CRS | | | | | | | CV Inquiry: DMS/060909/PM1 CV Job: WH/00071 CV Job Ref: CW32700 CV Serial#: 07CW32700/01-02 Item: 01 Quantity: 2 | | | |
| Description : 10 Inch, Class 600 STD, BW, A217 WC9, SD, CV700 160-5R+TMHW | | | | | | | | | | |
| 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) | Exit Vel. Head bar.a |
| COND 1 | 43.2 | 13.3 | 3.779 | 333.3 | 323.2 | 83% | 85% | 29212 | 77 | 1.49 |
| COND 2 | 32.8 | 13.3 | 3.341 | 333.3 | 243.4 | 63% | 65% | 24298 | 78 | 1.66 |
| COND 3 | | | | | | | | | | |
| COND 4 | | | | | | | | | | |
| COND 5 | | | | | | | | | | |
| SHUTOFF | | 54 | 1.01 | 370.0 | Allowable Leakage: | | | Predicted noise level with | | Insulation 3.0 Inch |
| DESIGN | | 54 | | 370.0 | ANSI FCI 70-2 Class IV | | | Insulation (IEC 60534-8-3) | | |
| BODY AND BONNET | | | | | | | | | | |
| Style: SD-Severe Duty, Globe Size: 10 Inch ASME Class: 600 Standard Body Inlet: Butt Weld, Sch 80 Per ANSI B16.25, Fig. 2b Body Outlet: Butt Weld, Sch STD Per ANSI B16.25, Fig. 2b Material: ASTM A217 WC9 Inlet Pipe: 10" x 8mm WT Outlet Pipe: 18" Sch STD | | | | | Bonnet Type: Bolted w/Extension Packing Material: Grafoil Packing Hardware: Stainless Steel Options: Single Packed Service: Continuous Modulation Outlet Expander : 10" x 18" Sch STD, Length: 15.00 In., Material: A-234 WPB | | | | | |
| TRIM | | | | | | | | | | |
| Size: 10 Inch with 4 Turns Style: RAVEN (Balanced with Piston rings) Flow Direction: UNDER THE WEB Stem Diameter: 1.00 Inch LINEAR | | | | | Seat Type: Metal Trim Material: 400/70 SST & 300 SST Disc Stack Max. Cv Available: 388.2 @Max Travel of 3" (+/-1/8) Min. Controllable Cv of Trim: 11.08 | | | | | |
| ACTUATOR | | | | | | | | | | |
| Actuator Model: CV700 160-5R+TMHW Action: Reverse (Air Fail Closed) Handwheel: Top Mounted Frame Material: Ductile Iron Air Pressure Available: 4.0 bar.g Air Pressure Required: 3.2 bar.g | | | | | Actuator Mounting Style: 4 x Studded Actuator Spring: 357580 Spring Rate: 768 lbf/in Max Stem Thrust Required to Close: 1605 lbf Max Stem Thrust Required to Open: 806 lbf Bench Set: 20-35 psi.g | | | | | |
| ACCESSORIES | | | | | | | | | | |
| Positioner: Copes SIPART PS2, Single Acting Positioner Input Range: 4-20 mA Position FeedBack Module (4-20mA): YES Alarm Module: NO HART Module: NO Piping: 1/2" Stainless Steel Tubing (Hoke) Limit Switches: None | | | | | Airlock: None Filter/Regulator: Norgren B64G-4GK-AD3-RMN Qty: 1 Solenoid Valve: ASCO (110 VDC) Qty: 1 De-energize to vent actuator Booster Relay: RK3000 Qty: 1 Additional Acc'y: Pneumatic Isolation Valve Qty: 1 | | | | | |
| COMMENTS | | | | | | | | | | |
| Downstream multi-orifice diffuser cartridge fitted - See Separate Data Sheet Outlet pressure shown on this datasheet are those prior to the diffuser plate Stroking speed Opening or Closing shall be less than 10 seconds | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | 04 | CMN | Per customer comments | | | Aug-31-2007 |
| | | | | | 03 | IJW | Revised For Contract Use | | | Jan-23-2007 |
| | | | | | 02 | MW | Revised per L2 meeting | | | Nov-20-2006 |
| | | | | | 01 | MW | Stroking speed added | | | Oct-25-2006 |
| | | | | | 00 | MW | Original Data Sheet | | | Sep-15-2006 |
| | | | | | Rev | Initials | Description | | | Date |
| Program Rev Level: UK-1-2 (WS Version) | | | | | | | | | | |



RECOMMENDED SPARES LIST

| | | | | | |
|----------------|----------------------------------|--------------------|---------------|-----------------|-----------------|
| CUSTOMER NAME | ALSTOM POWER CENTRALES - BELFORT | VENDOR CONTRACT N° | WH00071 | DATE | 21-May-07 |
| PROJECT NAME | MARITZA EAST 1 BULGARIA | DOCUMENT N° | CW32700/01-02 | AFTERMARKET REF | DGE070206/RS L8 |
| CUSTOMER PO N° | 745117 P12 73077 | REV STATUS | 0 | CONTACT | D.G. EDWARDS |

| | | | |
|---------------|-------|-------------|-------------------------|
| Qty Of Valves | 2 OFF | Description | SD - Globe 10" ANSI 600 |
|---------------|-------|-------------|-------------------------|

| Tag N° | Serial N° | Qty Installed Per Valve | CD Drawing N° | Drawing Item | Description | Part N° | Notes | Recommended 2 Yrs Operation |
|--------|-----------|-------------------------|---------------|--------------|-------------|---------|-------|-----------------------------|
|--------|-----------|-------------------------|---------------|--------------|-------------|---------|-------|-----------------------------|

| | | | | | | | | |
|------------------|-----------------|---|------------|-------------------|---|-------------|---|---|
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 3,4,5,18,20,21,40 | Assy Trim, Raven 10" 4T 48P Consisting Of # | C99108EAQA | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 3+ | Plug # | C33791-XMC | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 4+ | Trim Stack # | C33789-AQA | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 5+ | Seat # | C33790-XMA | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 18+ | Spirol Pin # | U20-120 | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 2 | CD32700 | 20++ | Trim Gasket # | S267466Q | 1 | 8 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 21+ | Trim Spacer # | C33792-XMA | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 2 | CD32700 | 40++ | Piston Ring # | S339357 | 1 | 4 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 6+ | Stem | STM32032504 | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 9++ | Bonnet Gasket | S286657 | 1 | 4 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 10+ | Gland Washer | S373408 | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | CD32700 | 16++ | Gland Packing | S368493 | 1 | 4 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | See Manual | 14,30,32,33,35,36 | Actuator Spares Kit 160R-L 1" Consisting of ### | C80141-AQA | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | See Manual | 14+ | Diaphragm ### | S195964BFP | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | See Manual | 32++ | Gasket ### | S356989 | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | See Manual | 33+ | U Cup Seal ### | S357800 | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | See Manual | 35+ | O Ring (Inner) ### | S357801 | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 02 | 1 | See Manual | 36+ | O Ring (Outer) ### | S357802 | | 1 |
| 01/02 LBC55AA001 | CW32700/01 & 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