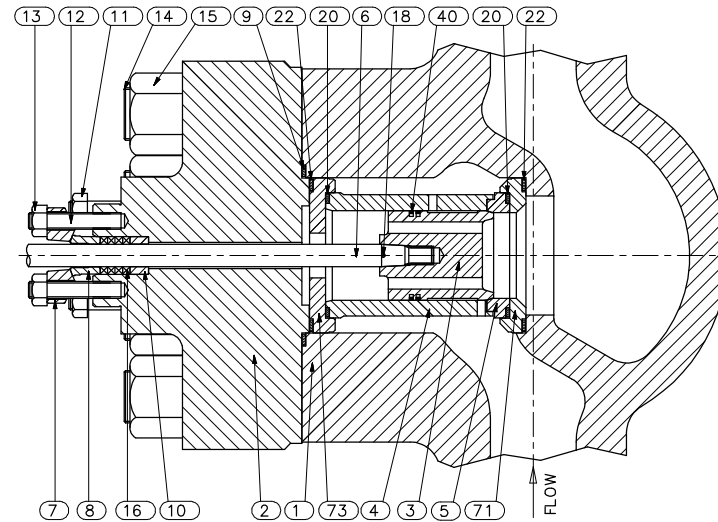
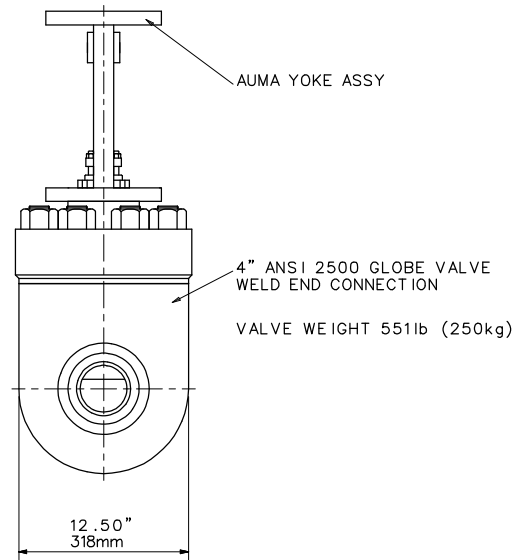
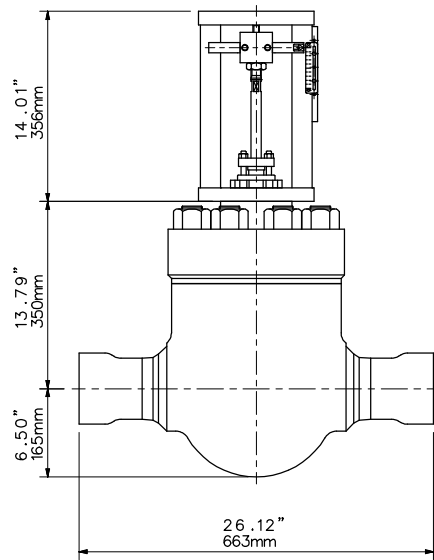


COPES-VULCAN, SPX Valves & Controls Road Two, Winsford Industrial Estate, Cheshire. CW7 3QL Phone: 0044 1606 552041 Fax: 0044 1606 558275					CONTROL VALVE SPECIFICATION SHEET																				
Customer Name: BSTO DEVELOPMENT Customer Inquiry: SES - ZONGULDAK, TURKEY Customer PO: BSTO-O-038-2007 Ultimate User: ZONGULDAK TPP, TURKEY Tag: LAB52AA001 Application: FEEDING 30%					CV Inquiry: DMC/070402/ML1 CV Job: WH/00549 CV Job Ref: CW33159 CV Serial #: 08CW33159/01 Item: 1 Quantity: 1																				
Description: 4" (100 mm), CL2500, WCB , BW, SD-AUMA SAR 7.5-22/ LE25.1 (																									
FLUID: Water		SERVICE CONDITIONS																							
	FLOW (Mton/hr)	P1 (MPa a)	P2 (MPa a)	Temp. (deg C)	Cv	CV (%)	Travel (%)	Valve Outlet Vel. (ft/sec)	Noise * (dBA)	Remarks															
COND 1	145	10	5	180	25.2	23%	32%	36	79																
COND 2	185	9.62	8.62	215	73.7	66%	60%	48	<75																
COND 3																									
COND 4																									
COND 5																									
SHUTOFF		26.4	0.1	265	Allowable Leakage:			* Estimated Noise Level with 0" of Insulation																	
DESIGN		26.4		265	Class IV																				
BODY AND BONNET																									
Style: SD - Severe Duty, Globe Size: 4 inch ASME Class: 2500 Standard Body Inlet: Butt Weld, Sch 160 per ANSI B16.25, Fig. 2b Body Outlet: Butt Weld, Sch 160 per ANSI B16.25, Fig. 2b Material: A-216 WCB Inlet Pipe: 133 mm 14 mm Inlet Reducer: 100 mm Sch 160 X 133 x 14 mm, Length: 127.00 mm, Material: A-234 WPB Outlet Pipe: 133 mm 14 mm Outlet Expander: 100 mm Sch 160 X 133 x 14 mm, Length: 127.00 mm, Material: A-234 WPB					Bonnet Type: Bolted Packing Material: Grafoil Packing Hardware: Steel Packing Nut Torque: 8 ft-lbs. Options: Single Packed Service: Rarely Modulating																				
TRIM																									
Size: 3 inch with 4 Starts Style: ONE STAGE HUSH (Balanced w/Carbon Piston Rings) Flow Direction: OVER THE WEB Stem Diameter: .75 in. Characteristic: ONE STAGE HUSH					Seat Type: METAL Trim Material: 400/70 SST Max. Cv Available: 112 @Max. Trim Travel of 2" (±1/8) Min. Controllable Cv of Trim: 1.5																				
ACTUATOR																									
Style: AUMA SAR 7.5-22/ LE25.1 (100) Size: N/A Action: N/A Handwheel: Side Mounted Frame Material: Cast Steel Air Pressure Available: N/A Air Pressure Required: N/A					Actuator Mounting Style: Clamped Actuator Spring: N/A Spring Rate: N/A Max. Stem Thrust Required to Close: 4528 (lbs) Max. Stem Thrust Required to Open: 1666 (lbs) Spring Precompression (Diaphragm Air Pressure): N/A Pressure @ Full Valve Travel (With No Internal Valve Pres.): N/A																				
ACCESSORIES																									
Positioner: None Positioner Action: --- Positioner Bypass: --- Positioner Gauges: --- Positioner Input Range: --- Positioner Cam: --- Piping: None Limit Switches: None					Airlock: None Filter/Regulator: None Solenoid Valve: None Booster Relay: None Additional Acc'y:																				
COMMENTS																									
BSTO TO SUPPLY AND FIT AUMA ACTUATOR																									
Model = SD4 Body Option: BDY504150901 Bonnet Option: BNT5041*0901 Trim Option: TRM504330410403 Hardware Pack Option: HDP511*111 Actuator Option: ACT5***** Stem Option: STM5**04022012 Gasket Option: GSK5040301091 Accessory Kit Option: I.D. Plate: UNKNOWN Limit Switch Option: * <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Rev</th> <th>Initials</th> <th>Description</th> <th>Date</th> </tr> <tr> <td>02</td> <td>SJH</td> <td>Per Customer Comments</td> <td>Mar-12-2008</td> </tr> <tr> <td>01</td> <td>DMC</td> <td>Issed for Contract Use</td> <td>Aug-16-2007</td> </tr> <tr> <td>0</td> <td>0</td> <td>Rev.0</td> <td>Mar-30-2007</td> </tr> </table>										Rev	Initials	Description	Date	02	SJH	Per Customer Comments	Mar-12-2008	01	DMC	Issed for Contract Use	Aug-16-2007	0	0	Rev.0	Mar-30-2007
Rev	Initials	Description	Date																						
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0	0	Rev.0	Mar-30-2007																						
Program Rev Level: 9.2.11 S File Name: O:\...Technical\Contract Docs\Data Sheets\DS-CW33159.VS3 (9.2.11)																									



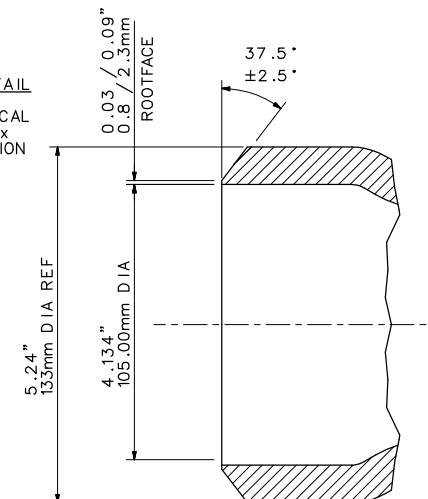
ITEM	DESCRIPTION
1	BODY
2	BONNET
3+	PLUG
4+	CAGE
5+	SEAT
6+	STEM
7	GLAND BRIDGE
8	GLAND FOLLOWER
9++	BONNET GASKET
10	GLAND WASHER
11	ACTUATOR BOLTING
12	GLAND STUD
13	GLAND NUT
14	BONNET STUD
15	BONNET NUT
16++	GLAND PACKING
18+	SPIROL PIN
20++	TRIM GASKET
22++	TRIM GASKET
40+	PISTON RING
71+	ADAPTOR RING
73+	ADAPTOR RING

RECOMMENDED SPARES

+ OPERATIONAL SPARES
++ COMMISSIONING SPARES

BUTTWELD END DETAIL

BOTH ENDS IDENTICAL
TO SUIT 133mm x
14mm WT CONNECTION



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IF IN DOUBT - ASK!

GENERAL ARRANGEMENT DRAWING OF 4" ANSI 2500 GLOBE VALVE WITH HUSH TRIM

CUSTOMER NAME
PROJECT NAME
CUSTOMER PO No
CUSTOMER TAG No
VENDOR NAME
VENDOR CONTRACT No
VENDOR JOB No
ITEM DESCRIPTION

BSTO DEVELOPMENT
ZONGULDAK TPP, TURKEY
BSTO-0-038-2007
LAB52AA001
COPES-VULCAN, WINSFORD
ENGLAND
WH/00549
CW33159
FEEDING 30%

ISS	MODIFICATION	DATE	BY	SCALE	DRAWN	JRL
01	Per Customer Comments	12-03-08	SJH	MATL	CHECKED	CMR
				USED ON	CW33159	APPROVED
				DATE	22-10-07	TRACED

COPES-VULCAN

SPX Process Equipment

DRAWING NO CD33159

ISSUE
01