

RECOMMENDED SPARES LIST

CUSTOMER NAME	ALSTOM POWER GENERATION AG	VENDOR CONTRACT N°	WG00799	DATE	04-Jun-07
PROJECT NAME	MARTIZA EAST 1, BULGARIA	DOCUMENT N°	RSI CWG2608/01	AFTERMARKET REF	WB/07011/RSI.8
CUSTOMER PO N°	D61-4500057376	REV STATUS	0	CONTACT	W. BAKER

Qty Of Valves	1	Description	GLOBE 10" ANSI 150
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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	Delivery	Unit Price	Total Ex-Works
01MAW15AA012	CW32608/01	1	CD32608	3,4,5,25,33,39	Asy Trim, 10" B SSH 3S 420 Consisting of #	TRM510012412502		1	8 weeks	€ 21,450.00	€ 21,450.00
01MAW15AA012	CW32608/01	1	CD32608	3+	Plug #	PLG310030102	⑥	1	8 weeks	€ 4,312.50	
01MAW15AA012	CW32608/01	1	CD32608	4+	Cage #	CAG31001022502		1	8 weeks	€ 11,737.50	
01MAW15AA012	CW32608/01	1	CD32608	5+	Seat #	SRG331011002	⑥	1	8 weeks	€ 3,187.50	
01MAW15AA012	CW32608/01	1	CD32608	25++	U Cup Seal #	VAS100101	①	1	8 weeks	€ 1,125.00	€ 1,125.00
01MAW15AA012	CW32608/01	1	CD32608	33+	Seal Retainer #	RET3100101	①	1	8 weeks	€ 675.00	
01MAW15AA012	CW32608/01	1	CD32608	39++	Retaining Ring #	352553		1	8 weeks	€ 412.50	€ 412.50
01MAW15AA012	CW32608/01	1	CD32608	6+	Stem	STM320320502	①	1	8 weeks	€ 225.00	€ 225.00
01MAW15AA012	CW32608/01	1	CD32608	9++	Bonnet Gasket	286657		2	8 weeks	€ 135.00	€ 270.00
01MAW15AA012	CW32608/01	1	CD32608	10+	Gland Washer	373408		1	8 weeks	€ 82.50	€ 82.50
01MAW15AA012	CW32608/01	1	CD32608	16++	Gland Packing	368493	①	2	8 weeks	€ 82.50	€ 165.00
01MAW15AA012	CW32608/01	1	CD32608	18+	Spiral Pin #	U20-163		1	8 weeks	€ 3.00	€ 3.00
01MAW15AA012	CW32608/01	1	CD32608	20	Trim Gasket Consisting #	GSK5101001061	①	2	8 weeks	€ 210.00	€ 420.00
01MAW15AA012	CW32608/01	2	CD32608	20++	Trim Gasket #	267469Q	①	4	8 weeks	€ 105.00	€ 420.00
01MAW15AA012	CW32608/01	1	REFER TO MANUAL	14,30,32,33,35,36	Actuator Spares Kit 160R-L 1" Consisting of # #	C80141-AQA		1	8 weeks	€ 589.50	
01MAW15AA012	CW32608/01	1	REFER TO MANUAL	14+	Diaphragm # #	195964BPP		1	8 weeks	€ 525.00	
01MAW15AA012	CW32608/01	1	REFER TO MANUAL	32++	Gasket # #	356909		1	8 weeks	€ 37.50	
01MAW15AA012	CW32608/01	1	REFER TO MANUAL	33+	U Cup Seal # #	357800		1	8 weeks	€ 15.00	
01MAW15AA012	CW32608/01	1	REFER TO MANUAL	35+	O Ring (Inner) # #	357801		1	8 weeks	€ 6.00	
01MAW15AA012	CW32608/01	1	REFER TO MANUAL	36+	O Ring (Outer) # #	357802		1	8 weeks	€ 6.00	
01MAW15AA012	CW32608/01	1	REFER TO MANUAL	30+	Bushing	356093		1	8 weeks	€ 502.50	€ 502.50
Total Ex-Works Value Sheet										€	25,075.50
Packing										€	25,075.50
Carriage CPT Job Site Galabovo Romania										€	25,075.50
Total Price Packed and Delivered CPT Job Site Galabovo Romania										€	25,075.50
See Summary Sheet										€	25,075.50

For And On Behalf Of SPX Flow Control

Compiled By Mr D.G. Edwards  
Title/Position Aftermarket Manager  
Date

① Please note that items marked 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

⑥ Please note that items marked ⑥ are operational spares  
Please note that these items require factory mating prior to shipment and form a unique matched set that must not be separated in storage or during valve rebuild  
We will lap the plug with the seat prior to shipment  
Plug and seat cannot be purchased as individual components

<b>COPES-VULCAN, SPX Valves &amp; Controls</b> Road Two, Winsford Industrial Estate, Cheshire. CW7 3QL Phone: 0044 1606 552041 Fax: 0044 1606 558275					<b>CONTROL VALVE SPECIFICATION SHEET</b>					
Customer Name: <b>ALSTOM POWER GENERATION AG</b> Customer Inquiry: <b>EMAIL</b> Customer PO: <b>D61-4500057376</b> Ultimate User: <b>MARITZA EAST 1, BULGARIA</b> Tag: <b>01MAW15AA012</b> Application: <b>GLAND STEAM EXHAUST VALVE</b>					CV Inquiry: <b>DMS/060112/RK1</b> CV Job: <b>WG/00799</b> CV Job Ref: <b>CW32608</b> CV Serial #: <b>07CW32608/01</b> Item: <b>2</b> Quantity: <b>1</b>					
Description: <b>10" (250 mm), CL150, WCB , BW, SD-700-160L RA</b>										
FLUID: <b>Steam</b>		<b>SERVICE CONDITIONS</b>								
	FLOW (kg/sec)	P1 (bar a)	P2 (bar a)	Temp. (deg C)	Cv	CV (%)	Travel (%)	Valve Outlet Vel. (ft/min)	Noise * (dBA)	Remarks
COND 1	2.5	1.03	0.341	200	885	84%	73%	61943	79	
COND 2										
COND 3										
COND 4										
COND 5										
SHUTOFF		10	1		Allowable Leakage:			* Estimated Noise Level with 3.5" of Insulation		
DESIGN		10		250	Class IV					
<b>BODY AND BONNET</b>										
Style: <b>SD - Severe Duty, Globe</b> Size: <b>10 inch</b> ASME Class: <b>150 Standard</b> Body Inlet: <b>Butt Weld, Sch STD per ANSI B16.25, Fig. 2b</b> Body Outlet: <b>Butt Weld, Sch STD per ANSI B16.25, Fig. 2b</b> Material: <b>A-216 WCB</b> Inlet Pipe: <b>14 In. (350 mm), Sch STD</b> Outlet Pipe: <b>14 In. (350 mm), Sch STD</b>					Bonnet Type: <b>Bolted</b> Packing Material: <b>Grafoil</b> Packing Hardware: <b>Stainless Steel</b> Packing Nut Torque: <b>7 ft-lbs.</b> Options: <b>Single Packed</b> Inlet Reducer: <b>10" X 14" Sch STD, Length: 13.00 In., Material: A-234 WPB</b> Outlet Expander: <b>10" X 14" Sch STD, Length: 13.00 In., Material: A-234 WPB</b>					
<b>TRIM</b>										
Size: <b>10 inch with 5 Starts</b> Style: <b>ONE STAGE HUSH (Balanced w/U-Cup Seals)</b> Flow Direction: <b>UNDER THE WEB</b> Stem Diameter: <b>1.00 in.</b> Characteristic: <b>ONE STAGE HUSH</b>					Seat Type: <b>METAL</b> Trim Material: <b>400/47 SST</b> Max. Cv Available: <b>1058 @Max. Trim Travel of 4" (±1/8)</b> Min. Controllable Cv of Trim: <b>9.5</b>					
<b>ACTUATOR</b>										
Style: <b>700 DIAPHRAGM</b> Size: <b>160L (Square Inch)</b> Action: <b>Spring Closing (Reverse)</b> Handwheel: <b>Top Mounted</b> Frame Material: <b>Ductile Iron</b> Air Pressure Available: <b>5.0 bar g (73 psig)</b> Air Pressure Required: <b>2.7 bar g (39 psig)</b>					Actuator Mounting Style: <b>4x Studded</b> Actuator Spring: <b>357580</b> Spring Rate: <b>768 (lbs/inch)</b> Max. Stem Thrust Required to Close: <b>1264 (lbs)</b> Max. Stem Thrust Required to Open: <b>463 (lbs)</b> Spring Precompression (Diaphragm Air Pressure): <b>13 (psig)</b> Pressure @ Full Valve Travel (With No Internal Valve Pres.): <b>32 (psig)</b>					
<b>ACCESSORIES</b>										
Positioner: <b>Copes 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>Bellofram 51FR w/Gauges</b> Qty: 1 Solenoid Valve: <b>None</b> Booster Relay: <b>SMC IL100-03</b> Qty: 1 Additional Acc'y:					
Piping: <b>Copper Tubing</b> Limit Switches: <b>None</b>										
<b>COMMENTS</b>										Review: 11.
Valve open / closed 10 seconds or less										
Model = <b>SD10</b> Body Option: <b>BDY510080201</b> Bonnet Option: <b>BNT510380201</b> Trim Option: <b>TRM510012412502</b> Hardware Pack Option: <b>HDP5215112</b> Actuator Option: <b>ACT51016**21</b> Stem Option: <b>STM53010011212</b> Gasket Option: <b>GSK5101001061</b> Accessory Kit Option: <b>AC7A25100*12020</b> I.D. Plate: <b>OPT264515</b>										
		03	CMR	Issued for contract use				Mar-24-2007		
		02	IJW	Revised Per Client Specification Rev A				Jul-25-2006		
		01	DMS	REVISED PER CUSTOMER COMMENTS				Jan-24-2006		
		00	DMS	INITIAL BID				Jan-18-2006		
		Rev	Initials	Description				Date		
Program Rev Level: <b>9.2.11</b> S					File Name: <b>K:\...\Technical\Contract Docs\Data Sheets\DS-CW32608.VS3 (9.2.11)</b>					

